Description of document:	Federal Reserve Board (FRB) Inspector General (OIG) Documents Related to the Investigation Regarding the Leak of Confidential Information from the September 2012 Federal Open Market Committee (FOMC) Meeting, 2012-2017
Requested date:	04-January-2021
Release date:	14-January-2021
Posted date:	19-April-2021
Source of document:	Information Disclosure Section Board of Governors of the Federal Reserve System 20th & Constitution Avenue, NW, Washington, DC 20551 Fax: (202) 872-7565 Electronic Request Form

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

ADDRESS OFFICIAL CORRESPONDENCE
TO THE BOARD

January 14, 2021

Re: *Freedom of Information Act Request No. F-2021-00089*

This is in response to your email message dated and received by the Board's Information Disclosure Section on January 4, 2021. Pursuant to the Freedom of Information Act ("FOIA"), 5 U.S.C. § 552, you request:

> The case file for the Office of the Inspector Generals investigation related to allegations concerning the Program for Security of FOMC Information and the FOMC Policy on External Communications of Committee Participants in conjunction with the leak of information from the September 2012 FOMC meeting, including the OIG's conclusions and recommendations.

Staff searched Board records and located documents responsive to your request. Specifically, staff located documents related to the investigation initiated by the OIG in 2013, as well as the investigation conducted in 2015 by the OIG in conjunction with the Department of Justice and the Federal Bureau of Investigation. I have determined, however, that certain information within the responsive materials consists of information prohibited from disclosure by another federal statute (e.g., information related to Grand Jury matters subject to Rule 6(e) of the Federal Rules of Criminal Procedure); internal and interagency pre-decisional analyses and recommendations (e.g., the predecisional deliberations of OIG and Board staff, attorney work product privileged materials, and predecisional draft documents[1]); personally identifiable information found within personnel and medical and similar files or found within records or information compiled for law enforcement purposes (e.g., the names and other personally identifiable information of OIG investigative staff, Board employees, and other third parties); information that could reasonably be expected to disclose the identity of a confidential source found within records or information compiled for law enforcement purposes (e.g., the personally identifiable information of and other information received from an OIG confidential source); and information related to the techniques or procedures of the law enforcement operations of the Board that, if disclosed, could reasonably be expected to risk circumvention of the law (e.g., information related to OIG or other agency law enforcement techniques or procedures).

Such information is subject to withholding and will be withheld under the authority of exemptions 3, 5, 6, 7(C), 7(D), and 7(E) of the FOIA, 5 U.S.C. §§ 552(b)(3), (b)(5), (b)(6), (b)(7)(C), (b)(7)(D), and (b)(7)(E), respectively. I have also determined that the information should be withheld because it is reasonably foreseeable that disclosure would harm an interest protected by an exemption described in subsection (b) of the FOIA, 5 U.S.C. § 552(b). The responsive documents have been reviewed under the requirements of subsection (b) and all reasonably segregable nonexempt information will be provided to you. The documents being provided to you will indicate the amount of information that has been withheld and the applicable exemptions. Because three or more persons have requested this same information, it has been posted in the Board's FOIA reading room at the following location: https://www.federalreserve.gov/foia/files/FOIA-response-september-2012-FOMC-meeting.pdf. In addition, approximately 631 pages of responsive information are being withheld in full.

For the reasons stated above, your request for information is granted in part and denied in part. If you believe that you have a legal right to any information that is being withheld pursuant to this determination or pursuant to my earlier determination, you may appeal by writing to Office of the Secretary, Board of Governors of the Federal Reserve System, Attn: FOIA Appeals, 20th Street & Constitution Avenue NW, Washington, DC 20551; by facsimile to 202-872-7565; or electronically to FOIA-Appeals@frb.gov.

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[1] Please note that finalized versions of certain draft documents being withheld are available on the Board's public website at the following locations: https://www.federalreserve.gov/monetarypolicy/files/FOMC20120913meeting.pdf; and https://www.federalreserve.gov/monetarypolicy/files/FOMC20120828memo06.pdf.

Your appeal must be postmarked or electronically transmitted within 90 days of the date of the response to your request.[2]

Very truly yours,

Margaret M Shanks

Margaret McCloskey Shanks
Deputy Secretary of the Board

[2] As an alternative to an administrative appeal, you may contact the Board's FOIA Public Liaison, Ms. Candace Ambrose, at 202-452-3684 for further assistance. Additionally, you may contact the Office of Government Information Services ("OGIS") at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road-OGIS, College Park, MD 20740-6001; email at ogis@nara.gov; telephone at 202-741-5770 or toll free at 1-877-684-6448; or facsimile at 202-741-5769.

Investigation File Report

I20130013-HQO

Investigation Details

Investigation Title: Release of Confidential Information - FOMC

Status: Investigation Re-opened

Program Area: Federal Reserve Board

Priority: 1: Threats, Disclosure of Nonpublic FOMC Information, Computer Incidents, Security Incident, or Emergency Response

Federal Reserve System: FR Board

Source: Anonymous

City, State: Washington District of Columbia

Division: Other

Lead Agent: (b) (6), (b) (7)(C)

Internal/Confidential: Yes

Congressional Interest: No

Assisting Agencies: Yes

Waived: No

Employee Case: Yes

Law Enforcement: Yes

Related Files: No

Victim Class: Other FR Operations

Program Activity: FRB - Other FRS Operations

Offense Class: Disclosure of Information

Investigation Result: Closed - No Further Action

Date Closed (Initial): 12/01/2014

Date Reopened: 03/10/2015

Date Closed: 04/06/2017

Synopsis

This investigation was reopened based on the results of complaint evaluation C20150031-HQO, in which an anonymous letter was received by Federal Reserve Board (b) (6), (b) (7)(C) who then forwarded a copy of the letter to the OIG on March 4, 2015. The anonymous letter states, (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) of the Fed leaked confidential FOMC information to Medley Global Advisors and other firms before the September 2012 decision."

The investigation concerns the release of confidential information from a September 2012 meeting of the Federal Open Market Committee (FOMC), which later appeared in an October 3, 2012 newsletter written by an analyst at Medley Global Advisors, (b) (6), (b) (7)(C). When the confidential information appeared in the Medley newsletter, the details of the FOMC meeting and minutes had not been released to the public. The minutes for the September 2012 FOMC meeting were released to the public on October 4, 2012.

The initial investigation into this matter was opened on March 13, 2013, based on information from a confidential informant who alleged that a potential leak of confidential FOMC information was not reported to the OIG for investigation by the (b) (6), (b) (7)(C), and (b) (6), (b) (7)(C), as set forth in the *Program for Security of FOMC Information*. Additionally, the confidential informant alleged that the potential leak of confidential FOMC information may have occurred in violation of the *FOMC Policy on External Communications of Committee Participants*, as well as the laws, rules, and regulations enforced by the U.S. Securities and Exchange Commission (SEC). Based on the information available to the OIG at that time, the OIG was unable to determine the source of the leak of confidential FOMC information and closed the investigation on December 1, 2014.

The new anonymous complaint, received by the OIG on March 4, 2015, contained information that warranted further investigation into this matter. Accordingly, this investigation was reopened. This investigation is being worked under suspected violation of 18 U.S.C. § 641 (public money, property, or records) and any other violation of law, rule, or regulation, including the *Standards of Ethical Conduct for Employees of the Executive Branch*, as well as any violation of Board or FOMC policy, rules, or regulations.

In March 2015, the Federal Bureau of Investigation (FBI) informed the OIG that they initiated an investigation into this matter in coordination with the U.S. Attorney's Office, Southern District of New York (USAO SDNY). Accordingly, this investigation will be coordinated with the FBI and USAO SDNY. We will also coordinate with the U.S. Commodities Futures Trading Commission (CFTC) and SEC to the extent any evidence is obtained to suggest a possible violation of law, rule, or regulation enforced by CFTC or the SEC, including Section 10(b) of the Securities Exchange Act of 1934 and SEC Rules 10b5-1 and 10b5-2.

APRIL 1, 2015 QUARTERLY REPORT

During this reporting period, this investigation was reopened based on the receipt of new information. Both (b) (6), (b) (7)(C) [redacted] and (b) (6), (b) (7)(C) [redacted], received anonymous letters allegedly identifying the leaker of confidential FOMC material to Medley Global Advisors. The anonymous letters were obtained for analysis. To date, the reporting agent has coordinated with USAO SDNY and the FBI and the first meeting is scheduled for April 1, 2015 in Washington, DC.

During this reporting period, the OIG obtained a copy of the FOMC's internal review report, dated March 14, 2013. The report identifies one particular piece of confidential FOMC information that was contained in the Medley Global Advisors newsletter.

JULY 1, 2015 QUARTERLY REPORT

During this reporting period, on April 1, 2015, the reporting agent met with the FBI and USAO SDNY to discuss case planning and coordination. An anonymous letter was provided to the FBI for their review and analysis deemed appropriate.

During this reporting period, the OIG obtained a copy of the supporting documentation for the FOMC internal review report.

(b) (6), (b) (7)(C) [redacted] Monetary Affairs, Board, was interviewed at which time (b) (6) [redacted] discussed (b) (6), (b) (7)(C), (b) (5) [redacted]

(b) (6), (b) (7)(C) [redacted] was interviewed at which time (b) (6) [redacted] discussed, (b) (6), (b) (7)(C), (b) (5) [redacted]

(b) (6), (b) (7)(C) [redacted] Monetary Affairs, Board, was interviewed at which time (b) (6) [redacted] discussed, (b) (6), (b) (7)(C), (b) (5) [redacted].

(b) (6), (b) (7)(C) [redacted], Research and Statistics, Board, was interviewed at which time (b) (6) [redacted] discussed (b) (6), (b) (7)(C), (b) (5) [redacted]

(b) (6), (b) (7)(C) [redacted], Monetary Affairs, Board, was interviewed at which time (b) (6) [redacted] discussed (b) (6), (b) (7)(C), (b) (5) [redacted]

(b) (6), (b) (7)(C) [redacted], Research and Statistics, Board, was interviewed at which time (b) (6) [redacted] discussed (b) (6), (b) (7)(C), (b) (5) [redacted].

(b) (6), (b) (7)(C) [redacted], Board, was interviewed at which time (b) (6) [redacted] discussed (b) (6), (b) (7)(C), (b) (5) [redacted]

(b) (6), (b) (7)(C), (b) (7)(D) [redacted] was interviewed at which time [redacted] discussed (b) (6), (b) (7)(C), (b) (5), (b) (7)(D) [redacted].

(b) (6), (b) (7)(C) [redacted] Monetary Affairs, was interviewed at which time (b) (6) [redacted] discussed (b) (6), (b) (7)(C), (b) (5) [redacted]

(b) (6), (b) (7)(C) [redacted] Monetary Affairs, Board, was interviewed at which time (b) (6) [redacted] discussed (b) (6), (b) (7)(C), (b) (5) [redacted]

(b) (6), (b) (7)(C) [redacted] Board, was interviewed at which time (b) (6) [redacted] discussed (b) (6), (b) (7)(C), (b) (5) [redacted]

(b) (6), (b) (7)(C) [redacted], Board, was interviewed at which time (b) (6) [redacted] discussed (b) (6), (b) (7)(C), (b) (5) [redacted]

During this reporting period, an analysis of (b) (6), (b) (7)(C) [redacted] Board email account found communications with (b) (6), (b) (7)(C) [redacted], Medley Global Advisors, which were (b) (5) [redacted]. No evidence was found reflecting the release of any confidential FOMC information. Additionally, an analysis found no email communications between (b) (6), (b) (7)(C) [redacted] and representatives of Medley Global Advisors.

See the associated memoranda of interview for additional details regarding the interviews described within this quarter.

OCTOBER 1, 2015 QUARTERLY REPORT

During this reporting period [redacted], was interviewed in an effort to obtain [redacted] emails, at which time [redacted] said that a Federal Reserve System-wide snapshot of emails was requested during the FOMC's earlier internal investigation into the leak.

During this reporting period [redacted] laptop computer was obtained by the OIG, as well as images of [redacted] devices, for review and analysis.

During this reporting period, OIG reporting agent interviewed [redacted], who said that [redacted]

During this reporting period, a copy of those Reserve Bank email accounts were provided to the OIG. The OIG's independent review and analysis of those emails began during this reporting period.

During this reporting period, email analysis found several communications, both prior to and during the relevant timeframe, between [redacted] and [redacted] of Medley Global Advisors [redacted]. These communications included emails relating to the issuance of a prior Medley Global Advisors newsletter concerning the content of FOMC meeting minutes.

During this reporting period, efforts were made to interview [redacted].

JANUARY 1, 2016 QUARTERLY REPORT

During this reporting period, [redacted] was interviewed [redacted] with the USAO SDNY. [redacted] stated that [redacted]

APRIL 1, 2016 QUARTERLY STATUS REPORT

During this reporting period, [redacted] Board was interviewed at which time [redacted] said [redacted]

As of this reporting period, the investigation is also being worked under a potential violation of 18 U.S.C. § 1001.

During this reporting period, the investigative team reviewed the notes taken by [redacted] during [redacted] interview conducted by [redacted]. No evidence was found that [redacted] told [redacted] or others during [redacted] interview that [redacted] and [redacted] discussed the confidential FOMC information.

During this reporting period, (b) (6), (b) (7)(C) [redacted], Board was interviewed about [redacted] conducting the (b) (6), (b) (7)(C) [redacted] (b) (6), (b) (7)(C) [redacted], (b) (6), (b) (7)(C) [redacted], and others. (b) (6), (b) (7)(C) [redacted] said [redacted] (b) (6), (b) (7)(C), (b) (5) [redacted]

On March 10, 2016, the OIG reporting agent met with USAO SDNY to discuss investigative findings to date.

JULY 1, 2016 QUARTERLY STATUS REPORT

On April 20, 2016, (b) (6), (b) (7)(C) [redacted], Board was interviewed [redacted] (b) (6), (b) (7)(C), (b) (5) [redacted]

During this reporting period, (b) (6), (b) (7)(C), (b) (3) (A) [redacted]

OCTOBER 1, 2016 QUARTERLY STATUS REPORT

During this reporting period, (b) (6), (b) (7)(C), (b) (3) (A) [redacted]

JANUARY 1, 2017 QUARTERLY STATUS REPORT

During this reporting period, (b) (6), (b) (7)(C), (b) (3) (A) [redacted]

APRIL 1, 2017 QUARTERLY STATUS REPORT

During this reporting period, (b) (6), (b) (7)(C), (b) (3) (A) [redacted]

APRIL 5, 2017 CASE CLOSING STATUS REPORT

On April 4, 2017, (b) (6), (b) (7)(C) [redacted] (b) (6), (b) (7)(C) [redacted]

USAO SDNY has declined to prosecute this matter. Based the USAO SDNY's declination and (b) (6), (b) (7)(C) [redacted] (b) (6), (b) (7)(C) [redacted], as well as a lack of any additional logical leads, no further investigative activity is warranted.

OFFICE OF INSPECTOR GENERAL

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

CONSUMER FINANCIAL PROTECTION BUREAU

Restricted-FR
Confidential

MEMORANDUM

DATE: February 15, 2013

TO: (b) (6), (b) (7)(C) [redacted]

FROM: (b) (6), (b) (7)(C) [redacted]

SUBJECT: Allegations from Confidential Informant

On February 14, 2013, I received a call from an individual hereinafter referred to as (CI-1) who requested anonymity. (CI-1) stated that he/she was aware of the Program for Security of FOMC Information. (CI-1) stated that when a breach of FOMC information is identified or suspected, the program requires the information to be promptly reported to the FOMC Secretary and the FOMC General Counsel who are required in consultation with the Chairman to conduct and initial review of the matter. At that point, the General Counsel determines whether to request the Board's Office of Inspector General (OIG) to conduct a full investigation.

(b) (6), (b) (7)(C), (b) (7)(D) [redacted]

(b)(6), (b)(7)(C)

[redacted]

AUTHORIZED FOR RELEASE

(b) (6), (b) (7)(C), (b) (7)(D)

[redacted]

I have attached below, excerpts from the Program on Security for FOMC Information below.

> *C. If any FOMC participant or Federal Reserve System staff person becomes aware of an incident in which FOMC information security rules may have been breached, that individual should promptly alert the FOMC Secretary. The Secretary and the FOMC's General Counsel will perform an initial review of the incident, in consultation with the Chairman and with the President of a specific Federal Reserve Bank if the violation appears to have involved staff within that Bank. In light of that initial review, the General Counsel will determine whether to request the Board's Inspector General to perform a full investigation of the incident. The results of that investigation will be reported to the Chairman, who will inform the Committee about those results as appropriate.*
>
> *D. If a staff person at the Federal Reserve Board has been found to be responsible for a breach of FOMC information security, the Chairman will determine the consequences for that individual. If a staff person at a Federal Reserve Bank has been found to be responsible for a breach of FOMC information security, the President of that Bank will determine the consequences for that individual and will inform the Chairman of that determination. If an FOMC participant has been found to be responsible for a breach of FOMC information security, the Committee will determine the consequences for that participant. The Inspector General will contact law enforcement agencies whenever an investigation indicates that criminal statutes may have been violated.*

Investigative Plan

I20130013-HQO

Case Title: Release of Confidential Information - FOMC

Allegation:

The OIG initiated this investigation based on an anonymous complaint regarding the possible leak of confidential Federal Open Market Committee (FOMC) meeting information. It is alleged that a Board employee is believed to have leaked FOMC information to a private citizen prior to the information being released to the public. According to the information provided in the complaint, the private citizen is an executive at an investment firm who published the FOMC information in a newsletter subscribed to by the executive' clients. It is also alleged that the executives firm and its clients may have been able to profit from this information. [redacted] The OIG is investigating this matter for possible criminal and administrative violations.

Possible Laws and Regulations Violated:

18 USC§1905 Disclosure of Confidential Information

Key Investigative Activities: *(Planned interviews, Records to be obtained, etc)*

[redacted]

Other Sources of Information: *(Applicable Policies and Procedures, On-Line Databases, NCIC, etc)*

Review Wall Street Journal Article by John Hilensrath dated September 28, 2012.Locate and review Regina Schleiger's newsletter for Medley Global Advisors.

Special Investigative Techniques: *Computer Forensics, Mail Cover, Consensual Meeting, Surveillance, etc)*

No special investigative techniques are anticipated.

Special Issues/Problems:

[redacted]

Investigative Location:

The investigation is located in Washington, District of Columbia

Travel:

No travel is anticipated at this time.

Edit Authorization:

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMORANDUM OF INTERVIEW

Redacted

On March 13, 2013, CS20130001 was interviewed at Juan Valdez Coffee Shop, 1889 F St NW Washington, DC 20006 by Special Agents in Charge (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) Office of the Inspector General for the Board of Governors of the Federal Reserve System. After being advised of the identity of the interviewing agent(s) and the purpose of the interview, CS20130001 provided the following information:

[redacted]

Date of Activity:		Location:
March 13, 2013		Juan Valdez Coffee Shop, 1889 F St NW Washington, District of Columbia 20006
Conducted by: (b) (6), (b) (7)(C)		Case Number: I 2013 0013
Transcribed By: (b) (6), (b) (7)(C)	Date Transcribed: March 28, 2013	Reviewed By:

[redacted]

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMORANDUM OF INTERVIEW

On March 13, 2013, (b) (6), (b) (7)(C) was interviewed at Juan Valdez Coffee Shop, 1889 F St NW Washington, DC 20006 by Special Agents in Charge (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C), Office of the Inspector General for the Board of Governors of the Federal Reserve System. After being advised of the identity of the interviewing agent(s) and the purpose of the interview, (b) (6), (b) (7)(C) provided the following information:

(b) (6), (b) (7)(C), (b) (7)(D)

[redacted]

Date of Activity: March 13, 2013		Location: Juan Valdez Coffee Shop, 1889 F St NW Washington, District of Columbia 20006
Conducted by: (b) (6), (b) (7)(C)		Case Number: I 2013 0013
Transcribed By: (b) (6), (b) (7)(C)	Date Transcribed: March 28, 2013	Reviewed By:

[redacted]

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

Referral to Securities and Exchange Commission

On December 2, 2014, the reporting agent contacted (b) (6), (b) (7)(C), Attorney, Division of Enforcement and Market Abuse, United States Securities and Exchange Commission (SEC) by telephone at (b) (6), (b) (7)(C). The purpose of the telephone call was to discuss the details of OIG case number I20130013-HQO – Release of Confidential Information-FOMC. (b) (6), (b) (7)(C) was provided details related to the leak of confidential FOMC information that appeared in a Wall Street Journal article on September 28, 2013 by Jon Hilsenrath and in a newsletter by Regina Schleiger for Medley Global Advisors that appeared on October 4, 2012.

(b) (6), (b) (7)(C) was advised that the OIG had concluded its investigation and was providing the details to the SEC to determine if they should review the matter for illegal trading that could have occurred based on the leak of FOMC information. The reporting agent advised (b) (6), (b) (7)(C) that (b) (6), (b) would speak with OIG counsel in order to provide investigative documents to the SEC for review. The documents were provided to OIG counsel and are pending review.

Attachments:

Recommendation to Close I20130013
LSAP Paper
LSAP Briefing

Date of activity: December 2, 2014	Case number: I20130013-HQO
Conducted by: (b) (6), (b) (7)(C)	Date prepared: December 2, 2014

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMO

Date: December 5, 2013

To: File I 2013 0013 HQO

From: SAC (b) (6), (b) (7)(C)

Subject: Email Activity

On December 5, 2013, the reporting agent received from the Board's Mobile and Messaging Group email files related to conversations to and from John Hilensrath, Wall Street Journal, the domain @medleyadviors.com and [redacted]@medleyadvisors.com. The emails will be reviewed for conversations with Board personnel whose names appear on the list provided by [redacted] of those contacted regarding the leak of FOMC information.

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMORANDUM OF INTERVIEW

On May 1, 2014, CS20130001 (Source) was interviewed at Paul's Bistro, 20th and Pennsylvania, Washington DC by Special Agents in Charge (b) (6), (b) (7)(C), Office of the Inspector General for the Board of Governors of the Federal Reserve System. After being advised of the identity of the interviewing agent(s) and the purpose of the interview, CS20130001 provided the following information:

(b) (6), (b) (7)(C), (b) (7)(D)

[redacted]

Date of Activity:		Location:
Conducted by:		Case Number:
Transcribed By:	Date Transcribed:	Reviewed By:

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On May 5, 2015, Senior Special Agent (b) (6), (b) (7)(C), Special Agent (b) (6), (b) (7)(C), both of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C), a (b) (6), (b) (7)(C)

Attachment: FBI 302

Date of activity: 5/5/15	Case number: I20130013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 05/14/15

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On May 5, 2015, Senior Special Agent (b) (6), (b) (7)(C), Special Agent (b) (6), (b) (7)(C), both of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C)

Attachment: FBI 302

Date of activity: 5/5/15	Case number: I20130013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 05/14/15

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On May 14, 2015, Senior Special Agent (b) (6), (b) (7)(C), Senior Special Agent (b) (6), (b) (7)(C) and Attorney (b) (6), (b) (7)(C), all of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C), a former (b) (6), (b) (7)(C).

Attachment: FBI 302

Date of activity: 5/14/15	Case number: I20130013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 05/23/15

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On May 6, 2015, Senior Special Agent (b) (6), (b) (7)(C) and Senior Special Agent (b) (6), (b) (7)(C) (b) (6), (b) (7)(C), both of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C).

Attachment: FBI 302

Date of activity: 5/6/15	Case number: I20130013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 05/15/15

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On May 6, 2015, Senior Special Agent (b) (6), (b) (7)(C), Senior Special Agent (b) (6), (b) (7)(C) and Attorney (b) (6), (b) (7)(C), all of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C).

Attachment: FBI 302

Date of activity: 5/6/15	Case number: I20130013-HQO
Conducted by: (b) (6), (b) (7)(C)	Date prepared: 05/15/15

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On May 5, 2015, Senior Special Agent (b) (6), (b) (7)(C), Attorney (b) (6), (b) (7)(C), both of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C), a (b) (6), (b) (7)(C).

Attachment: FBI 302

Date of activity: 5/5/15	Case number: I20130013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 05/14/15

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On May 5, 2015, Senior Special Agent (b) (6), (b) (7)(C), Special Agent (b) (6), (b) (7)(C), both of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C) [redacted]

Attachment: FBI 302

Date of activity: 5/5/15	Case number: I20130013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 05/14/15

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On May 5, 2015, Senior Special Agent (b) (6), (b) (7)(C), Attorney (b) (6), (b) (7)(C), both of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C) of the Board.

Attachment: FBI 302

Date of activity: 5/5/15	Case number: I20130013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 05/14/15

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On May 5, 2015, Senior Special Agent (b) (6), (b) (7)(C), Attorney (b) (6), (b) (7)(C), both of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C) [redacted]

Attachment: FBI 302

Date of activity: 5/5/15	Case number: I20130013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 05/14/15

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On May 14, 2015, Senior Special Agent (b) (6), (b) (7)(C), Senior Special Agent (b) (6), (b) (7)(C) and Attorney (b) (6), (b) (7)(C), all of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C). (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) (b) (6), (b) (7)(C)

Attachment: FBI 302

Date of activity: 5/14/15	Case number: I20130013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 05/23/15

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On May 6, 2015, Senior Special Agent (b) (6), (b) (7)(C), Senior Special Agent (b) (6), (b) (7)(C) and Attorney (b) (6), (b) (7)(C), all of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C)

Attachment: FBI 302

Date of activity: 5/6/15	Case number: I20130013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 05/15/15

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On February 3, 2016, 2016, Senior Special Agent (b) (6), (b) (7)(C) and Attorney (b) (6), (b) (7)(C), both of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C) and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C), Board. (b) (6), (b) (7)(C) agreed to the recording of the interview.

Attachment: Interview Transcription

Date of activity: 02/03/16	Case number: I20010013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 02/13/16

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On February 17, 2016, Senior Special Agent (b) (6), (b) (7)(C) and Attorney (b) (6), (b) (7)(C), both of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States' Attorneys (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C), (b) (6), (b) (7)(C), Board. (b) (6), (b) (7)(C) agreed to the recording of the interview.

Attachment: Interview Transcription

Date of activity: 02/17/16	Case number: I20010013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 02/26/16

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On April 20, 2016, Senior Special Agent (b) (6), (b) (7)(C) and Attorney (b) (6), (b) (7)(C), both of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorneys (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C), (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) agreed to the recording of the interview.

Attachment: Interview Transcription

Date of activity: 04/20/16	Case number: I20010013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 04/30/16

OIG Form IN-007-3

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Memorandum of Activity

INTERVIEW OF (b) (6), (b) (7)(C)

On October 7, 2015, Senior Special Agent (b) (6), (b) (7)(C) and Attorney (b) (6), (b) (7)(C), both of the Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) in conjunction with Assistant United States Attorney (b) (6), (b) (7)(C), Assistant United States Attorney (b) (6), (b) (7)(C), (b) (6), (b) (7)(C) [redacted] and (b) (6), (b) (7)(C), both of the US Commodity Futures Trading Commission, and Federal Bureau of Investigation Special Agent (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C), the (b) (6), (b) (7)(C). (b) (6), (b) (7)(C) was (b) (6), (b) (7)(C) (b) (6), (b) (7)(C), (b) (6), (b) (7)(C), and (b) (6), (b) (7)(C) (b) (6), (b) (7)(C).

Attachment: FBI 302

Date of activity: 10/7/15	Case number: I20130013-HQO
Conducted by: SSA (b) (6), (b) (7)(C)	Date prepared: 10/16/15

OIG Form IN-007-3

OFFICE OF INSPECTOR GENERAL

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

CONSUMER FINANCIAL PROTECTION BUREAU

Restricted-FR
Confidential

MEMORANDUM

DATE: February 15, 2013

TO: (b) (6), (b) (7)(C) [redacted]

FROM: (b) (6), (b) (7)(C) [redacted]

SUBJECT: Allegations from Confidential Informant

On February 14, 2013, I received a call from an individual hereinafter referred to as (CI-1) who requested anonymity. (CI-1) stated that he/she was aware of the Program for Security of FOMC Information. (CI-1) stated that when a breach of FOMC information is identified or suspected, the program requires the information to be promptly reported to the FOMC Secretary and the FOMC General Counsel who are required in consultation with the Chairman to conduct and initial review of the matter. At that point, the General Counsel determines whether to request the [redacted]d's Office of Inspector General (OIG) to conduct a full investigation. [redacted]

[redacted]

[redacted]

[redacted]

I have attached below, excerpts from the Program on Security for FOMC Information below.

> *C. If any FOMC participant or Federal Reserve System staff person becomes aware of an incident in which FOMC information security rules may have been breached, that individual should promptly alert the FOMC Secretary. The Secretary and the FOMC's General Counsel will perform an initial review of the incident, in consultation with the Chairman and with the President of a specific Federal Reserve Bank if the violation appears to have involved staff within that Bank. In light of that initial review, the General Counsel will determine whether to request the Board's Inspector General to perform a full investigation of the incident. The results of that investigation will be reported to the Chairman, who will inform the Committee about those results as appropriate.*
>
> *D. If a staff person at the Federal Reserve Board has been found to be responsible for a breach of FOMC information security, the Chairman will determine the consequences for that individual. If a staff person at a Federal Reserve Bank has been found to be responsible for a breach of FOMC information security, the President of that Bank will determine the consequences for that individual and will inform the Chairman of that determination. If an FOMC participant has been found to be responsible for a breach of FOMC information security, the Committee will determine the consequences for that participant. The Inspector General will contact law enforcement agencies whenever an investigation indicates that criminal statutes may have been violated.*

(b) (6), (b) (7)(C)

From: (b) (6), (b) (7)(C)
Sent: Tuesday, December 02, 2014 10:48 AM
To: (b) (6), (b) (7)(C)
Cc: (b) (6), (b) (7)(C)
Subject: Investigative Summary for SEC -FRSONLY-
Attachments: LSAP_Paper.pdf; LSAP-Briefing.pdf; FOMC Closing Memo_v6_Final-08-11-2014.pdf

(b) (6), (b) (7)(C)

As we discussed, attached is case summary for the FOMC investigation. I spoke with the SEC this morning and they would like to review a copy of this report. We will also probably meet at some point in the future to discuss matters in detail. Please review the report along with the other attached documents which are support for the information contained in the FOMC minutes. The additional documents were identified during the investigation and are related to the securities discussed in the FOMC minutes and the articles in question.

Please let me know if you have any questions.

(b) (6), (b) (7)(C) | Special Agent in Charge, (b) (6), (b) (7)(C)
Office of Inspector General
Board of Governors of the Federal Reserve System | Consumer Financial Protection Bureau
(b) (6), (b) (7)(C) | (b) (6), (b) (7)(C)
OIG Hotline: 800-827-3340 | oighotline@frb.gov

www.federalreserve.gov/oig

(b) (6), (b) (7)(C)

From: (b) (6), (b) (7)(C)
Sent: Wednesday, December 04, 2013 2:34 PM
To: (b) (6), (b) (7)(C)
Subject: Question -FRSONLY-

(b) (6), (b) (7)(C)

In answer to your question at this afternoon's meeting, the Monetary Affairs staff member who had the assignment of drafting the Minutes for the September 2012 FOMC meeting was (b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

From: (b) (6), (b) (7)(C)
Sent: Friday, August 23, 2013 2:47 PM
To: (b) (6), (b) (7)(C)
Subject: Minutes Authors -FRSONLY-

(b) (6), (b) (7)(C)... Just getting back on part of the information you requested. The authors of the September 2012 minutes are listed below. As we discussed, the primary overall author is the one focused on the policymakers discussion of the economic and policy outlook—the so-called "policy" portion of the minutes. The other authors cover the historical potion of the minutes. As we discussed, that is a much less sensitive aspect of the overall minutes process.

(b) (6), (b) (7)(C)	Policy Minutes	Primary Author
(b) (6), (b) (7)(C)	Historical Minutes	
(b) (6), (b) (7)(C)	Historical Minutes	

I'm still trying to track down all the interviews I participated in and will try to send you that information soon.

Thanks.

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

From: (b) (6), (b) (7)(C)
Sent: Tuesday, April 16, 2013 4:56 PM
To: (b) (6), (b) (7)(C)
Cc: (b) (6), (b) (7)(C)
Subject: FW: Employee list -FRSONLY-

Done.

From: (b) (6), (b) (7)(C)
Sent: Tuesday, April 16, 2013 4:56 PM
To: (b) (6), (b) (7)(C)
Subject: RE: Employee list -FRSONLY-

(b) (6), (b) (7) –

Thanks for sending this information.

I want to revisit the issue of access to your report. Either a copy or be able to read it. Let's discuss soon, OK?

(b) (6), (b) (7)(C) will be following up with you shortly on some matters (b) (6), (b) discussed with you during your interview.

Thanks!

(b) (6), (b) (7)

From: (b) (6), (b) (7)(C)
Sent: Monday, April 15, 2013 10:08 AM
To: (b) (6), (b) (7)(C)
Subject: Employee list -FRSONLY-
Importance: High

(b) (6), (b) (7)(C)

Here's the list of Board employees that we contacted during our review of the (b) (6), (b) (7)(C) matter.
All the best!
(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

From: (b) (6), (b) (7)(C)
Sent: Monday, April 15, 2013 10:43 AM
To: (b) (6), (b) (7)(C); (b) (6), (b) (7)(C); (b) (6), (b) (7)(C); (b) (6), (b) (7)(C)
Subject: FW: Employee list -FRSONLY-
Attachments: (b) (6), (b) (7)(C) Review List.ig.xlsx

Importance: High

Let's get together and discuss next steps.

From: (b) (6), (b) (7)(C)
Sent: Monday, April 15, 2013 10:08 AM
To: (b) (6), (b) (7)(C)
Subject: Employee list -FRSONLY-
Importance: High

(b) (6), (b) (7)(C)

Here's the list of Board employees that we contacted during our review of the (b) (6), (b) (7)(C) matter.
All the best!
(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) Review List†

First	Last	Division
(b) (6), (b) (7)(C)		Legal Division
		Legal Division
		Division of Monetary Affairs
		Division of Research and Statistics
		Office of Board Members
		Division of International Finance
		Division of Monetary Affairs
		Division of Monetary Affairs
		Division of Banking Supervision and Regulation
		Division of Monetary Affairs
		Division of International Finance
		Division of Monetary Affairs
		Division of Research and Statistics
		Division of Monetary Affairs
		Division of International Finance
		Division of Monetary Affairs
		Office of Board Members
		Office of Board Members
		Division of Monetary Affairs
		Division of Research and Statistics
		Division of Research and Statistics
		Division of Monetary Affairs
		Division of International Finance
		Office of Board Members
		Division of Monetary Affairs
		Division of Banking Supervision and Regulation
		Office of Board Members
		Office of Board Members
		Division of Monetary Affairs
		Division of Monetary Affairs
		Division of Banking Supervision and Regulation
		Division of Monetary Affairs
		Division of Monetary Affairs

(b) (6), (b) (7)(C) Review List†

First	Last	Division
(b) (6),	(b) (7)(C)	Division of International Finance
		Division of Research and Statistics
		Division of Research and Statistics
		Division of Monetary Affairs
		Division of Monetary Affairs
		Office of Board Members
		Division of Research and Statistics
		Division of International Finance
		Division of Research and Statistics
		Office of Financial Stability Policy and Research
		Office of Board Members
		Division of Research and Statistics
		Office of Financial Stability Policy and Research
		Division of Monetary Affairs
		Division of Monetary Affairs
		Division of Monetary Affairs
		Office of Board Members
		Office of Board Members
		Division of Monetary Affairs
		Division of Monetary Affairs
		Office of Board Members
		Office of Board Members
		Division of Monetary Affairs
		Division of Monetary Affairs
		Division of Monetary Affairs
		Division of Research and Statistics
		Division of Research and Statistics
		Office of Board Members
		Division of Research and Statistics
		Office of Board Members
		Office of Board Members
		Office of Board Members
		Office of Board Members

(b) (6), (b) (7)(C) [redacted] Review List†

First	Last	Division
(b) (6), (b) (7)(C) [redacted]	[redacted]	Division of Research and Statistics
[redacted]	[redacted]	Division of Research and Statistics
[redacted]	[redacted]	Office of Board Members
[redacted]	[redacted]	Division of Monetary Affairs
[redacted]	[redacted]	Division of Research and Statistics
[redacted]	[redacted]	Division of Research and Statistics
[redacted]	[redacted]	Office of Board Members
[redacted]	[redacted]	Division of Monetary Affairs
[redacted]	[redacted]	Office of Board Members
[redacted]	[redacted]	Office of Board Members
[redacted]	[redacted]	Division of Research and Statistics
[redacted]	[redacted]	Office of Board Members
[redacted]	[redacted]	Division of Research and Statistics
[redacted]	[redacted]	Division of Research and Statistics
[redacted]	[redacted]	Division of Research and Statistics
[redacted]	[redacted]	Division of Monetary Affairs
[redacted]	[redacted]	Division of Monetary Affairs
[redacted]	[redacted]	Division of Research and Statistics
[redacted]	[redacted]	Division of Monetary Affairs
[redacted]	[redacted]	Office of Board Members
[redacted]	[redacted]	Division of Monetary Affairs
[redacted]	[redacted]	Division of Monetary Affairs

† The individuals on this list were contacted as part of the FOMC review.

* These individuals did not receive written questionnaires as part of the FOMC review, but were personally contacted and questioned as to whether they had any contacts with (b)(6), (b)(7)(C) [redacted] during the relevant time period. These individuals were contacted personally because their potential access to relevant Class I FOMC information was for limited or ministerial purposes (e.g., copy center employees who prepared Tealbook Book B).

Excel

(b) (6), (b) (7)(C) [redacted]

FRB Search Criteria **3/25/2014 5:49:27 PM EDT**

Start Date/Time ▲	Duration	Extension Used	Reported Dialed/CLI Number	Call Destination	Call Type	Trunk	Cost
8/23/2012 10:32:36 AM	00:21:24	3799	(b) (6), (b) (7)(C) [redacted]	NY CZ01A, NY	National	#91060	$5.50
8/23/2012 10:54:18 AM	00:22:42	3799		NY CZ01A, NY	National	#91078	$5.75
8/23/2012 10:55:00 AM	00:00:00	3799		NY CZ01A, NY	National	#91077	$0.00
9/6/2012 1:01:30 PM	00:00:30	3799		NY CZ01A, NY	Incoming	#70003	$0.00
9/21/2012 7:56:54 AM	00:00:06	3799		NY CZ01A, NY	Incoming	#70002	$0.00
9/21/2012 7:57:54 AM	00:03:06	3799		NY CZ01A, NY	National	#91051	$1.00
9/24/2012 10:03:30 AM	00:00:30	3799		NY CZ01A, NY	Incoming	#70012	$0.00
9/24/2012 11:58:36 AM	00:00:24	3799		NY CZ01A, NY	National	#91169	$0.25
					Total Calls		**8**
					Total Duration		**00:48:42**
					Total Cost		**$12.50**

-(b) (6), (b) (7)(C) **visited the Board 1 time on June 11, 2012.**

SEARCH CRITERIA

You may use % as a wildcard on the indicated fields. (First Name, Last Name and Org/Agency)

FIRST NAME	(b) (6), (b) (7)(C) (%)	LAST NAME	(b) (6), (b) (7)(C) (%)
SOCIAL SECURITY #		DATE OF BIRTH	MM DD YYYY
PASSPORT #		COUNTRY OF ISSUE	-- SELECT --
ORG/AGENCY	(%)	VISITOR TYPE	-- SELECT --
VISIT DATE	MM/DD/YYYY	EMPLOYEE VISITED	-- SELECT --
REGISTRATION TITLE		ASSOCIATED EMPLOYEE	-- SELECT --
DESTINATION		PURPOSE OF VISIT	-- SELECT --
WAVES STATUS	-- SELECT --	ESCORT TYPE	-- SELECT --

SEARCH RESET FORM

1 record(s) found matching your criteria.

SEARCH RESULTS

NAME	ORG/AGENCY	TYPE	VISIT PURPOSE	DESTINATION	START DATE	END DATE	ESCORT TYPE	ASSOCIATED EMPLOYEE	STATUS	DETAILS
(b) (6), (b) (7)(C)	Medley Global Advisors	Visitor	Meeting	(b) (6), (b) (7)(C)	06/11/2012	06/11/2012	Division	**LEO Registration**	Signed-In	

Visitor Registration *at the Federal Reserve Board*

CLEAR PENDING SEARCH VISITORS HELP

RESTRICTED FR

ABOUT THE VISITOR

*Required Field

* FIRST NAME	(b) (6), (b) (7)(C)	* LAST NAME	(b) (6), (b) (7)(C)	M.I.
* ORG/AGENCY	Medley Global Advisors	* VISITOR TYPE	Visitor	
SOCIAL SECURITY #		DATE OF BIRTH		
PASSPORT #		COUNTRY OF ISSUE		
* ESCORT TYPE	Division	* TIME EXPECTED	10 00 AM	
EMAIL				

ABOUT THE VISIT

*Required Field

By selecting NO in this drop down, a new visit registration will be created for this visitor with following visit information

* UPDATE VISIT INFORMATION FOR ALL VISITORS IN THIS VISIT? -- SELECT --

REGISTRATION TITLE		* PURPOSE OF VISIT	Meeting
* DESTINATION	(b) (6), (b) (7)(C)	* EMPLOYEE VISITED	(b) (6), (b) (7)(C)
* START DATE	6/11/2012	* PERSON TO BE CONTACTED UPON ARRIVAL	
* END DATE	6/11/2012	ALTERNATE CONTACT #1	
CONTACT CELL PHONE #		ALTERNATE CONTACT #2	

UPDATE INFORMATION

DELETE VISITOR UPDATE WAVES RELATED INFORMATION CANCEL

(b) (6), (b) (7)(C) **visited the Board 29 times**

- 12 times in 2012
- 14 times in 2013

(b) (6), (b) (7)(C)

From:	(b) (6), (b) (7)(C)
Sent:	Thursday, February 27, 2014 8:40 AM
To:	(b) (6), (b) (7)(C)
Subject:	RE: Request for Information -FRSONLY-
Attachments:	IG Query - (b) (6), (b) (7)(C) docx

(b) (6), (b) (7)(C)

Sure, here is a Word Doc. Sorry about that. There are exportable spreadsheets that I can run too but they don't have the same level of detail.

From: (b) (6), (b) (7)(C)
Sent: Thursday, February 27, 2014 6:54 AM
To: (b) (6), (b) (7)(C)
Subject: RE: Request for Information -FRSONLY-
Importance: High

(b) (6), (b) (7)(C)

Thanks for the quick response. Is there any way to get a print out of this information. I cannot make out the details from the screen shot.

Thanks

From: (b) (6), (b) (7)(C)
Sent: Wednesday, February 26, 2014 4:02 PM
To: (b) (6), (b) (7)(C)
Cc: (b) (6), (b) (7)(C)
Subject: RE: Request for Information -FRSONLY-

(b) (6), (b) (7)(C)

If you require more information from the Visitor Registration System please let me know.

(b) (6), (b) (7)(C) visited the Board 29 times

- 12 times in 2012
- 14 times in 2013
- 3 times in 2014 – (1 Future visit scheduled for 2/28/2014)

Logged in as: (b) (6), (b) (7)(C)

Visitor Registration at the Federal Reserve Board

CLEAR PENDING | SEARCH VISITORS | HELP

SEARCH CRITERIA

You may use % as a wildcard on the indicated fields. (First Name, Last Name and Org/Agency)

FIRST NAME	(%)	LAST NAME	(b) (6), (b) (7)(C) (%)
SOCIAL SECURITY #		DATE OF BIRTH	MM ▾ DD ▾ YYYY ▾
PASSPORT #		COUNTRY OF ISSUE	– SELECT –
ORG/AGENCY	(%)	VISITOR TYPE	– SELECT –
VISIT DATE	MM/DD/YYYY	EMPLOYEE VISITED	– SELECT –
REGISTRATION TITLE		ASSOCIATED EMPLOYEE	– SELECT –
DESTINATION		PURPOSE OF VISIT	– SELECT –
WAVES STATUS	– SELECT –	ESCORT TYPE	– SELECT –

SEARCH | RESET FORM

32 record(s) found matching your criteria.

SEARCH RESULTS

NAME	ORG/AGENCY	TYPE	VISIT PURPOSE	DESTINATION	START DATE	END DATE	ESCORT TYPE	ASSOCIATED EMPLOYEE	STATUS	DETAILS
(b) (6), (b) (7)(C)	Wall St Journal	Visitor	Meal with Board Staff	(b) (6), (b) (7)(C)	04/26/2012	04/26/2012	Division	(b) (6), (b) (7)(C)	igned-In	
	Wall St Journal	Trusted	Interview		07/11/2013	07/11/2013	Division		igned-In	
	Wall St Journal	Trusted	Interview		07/19/2013	07/19/2013	Division		igned-In	
	Wall St Journal	Trusted	Interview		01/15/2013	01/15/2013	Division		igned-In	
	Wall St Journal	Trusted	Interview		01/16/2013	01/15/2013	Division		igned-In	
	Wall St Journal	Trusted	Meeting		02/01/2013	02/01/2013	Division		igned-In	
	Wall St Journal	Trusted	Interview		03/19/2012	03/19/2012	Division		igned-In	
	Wall St Journal	Trusted	Interview		03/02/2012	03/02/2012	Division		igned-In	
	Wall St Journal	Trusted	Interview		07/23/2012	07/23/2012	Division		igned-In	
	Wall St Journal	Trusted	Meal with Board Staff		04/26/2012	04/26/2012	Division		igned-In	
	Wall St Journal	Trusted	Interview		06/04/2012	06/04/2012	Division		igned-In	
	Wall St Journal	Trusted	Interview		12/03/2013	12/03/2013	Division		igned-In	
	Wall St Journal	Trusted	Interview		11/28/2012	11/28/2012	Division		igned-In	
	Wall St Journal	Trusted	Interview		07/19/2012	07/19/2012	Division		igned-In	
	Wall St Journal	Trusted	Interview		07/03/2012	07/03/2012	Division		igned-In	
	Wall St Journal	Trusted	Interview		09/03/2013	09/03/2013	Division		igned-In	
	Wall St Journal	Trusted	Interview		09/04/2013	09/04/2013	Division		igned-In	
	Wall St Journal	Trusted	Interview		06/04/2013	06/04/2013	Division		igned-In	
	Wall St Journal	Trusted	Interview		01/17/2014	01/17/2014	Division		igned-In	
	Wall St Journal	Trusted	Interview		02/28/2014	02/28/2014	Division		pproved	
	Wall St. Journal	Visitor	Conference		01/29/2014	01/29/2014	Division		igned-In	
	Wall St. Journal	Visitor	Conference		03/20/2013	03/20/2013	Division		igned-In	
	Wall St. Journal	Visitor	Conference		04/25/2012	04/25/2012	Division		igned-In	
	Wall St. Journal	Visitor	Conference		04/22/2013	04/22/2013	Division		igned-In	
	Wall Street Journal	Visitor	Interview		05/08/2012	05/08/2012	Division		igned-In	
	Wall Street Journal	Visitor	Conference		09/13/2012	09/13/2012	Division		igned-In	
	Wall Street Journal	Visitor	Conference		09/18/2013	09/18/2013	Division		igned-In	
	Wall Street Journal	Visitor	Conference		06/20/2012	06/20/2012	Division		igned-In	
	Wall Street Journal	Visitor	Conference		12/18/2013	12/18/2013	Division		igned-In	
	WSJ	Trusted	Interview		03/06/2013	03/06/2013	Division		igned-In	
	Wall St Journal	Trusted	Interview		02/06/2014	02/06/2014	Division		igned-In	
	Wall St Journal	Visitor	Meal with Board Staff		04/26/2012	04/26/2012	Division		igned-In	

Save As Excel File (.xls)

Inside the Board   Management Division

-(b) (6), (b) (7)(C) visited the Board 1 time on June 11, 2012.

SEARCH CRITERIA

You may use % as a wildcard on the indicated fields. (First Name, Last Name and Org/Agency)

FIRST NAME	(b) (6), (b) (7)(C) (%)	LAST NAME	(b) (6), (b) (7)(C) (%)
SOCIAL SECURITY #		DATE OF BIRTH	MM DD YYYY
PASSPORT #		COUNTRY OF ISSUE	-- SELECT --
ORG/AGENCY	(%)	VISITOR TYPE	-- SELECT --
VISIT DATE	MM/DD/YYYY	EMPLOYEE VISITED	-- SELECT --
REGISTRATION TITLE		ASSOCIATED EMPLOYEE	-- SELECT --
DESTINATION		PURPOSE OF VISIT	-- SELECT --
WAVES STATUS	-- SELECT --	ESCORT TYPE	-- SELECT --

SEARCH | RESET FORM

1 record(s) found matching your criteria.

SEARCH RESULTS

NAME	ORG/AGENCY	TYPE	VISIT PURPOSE	DESTINATION	START DATE	END DATE	ESCORT TYPE	ASSOCIATED EMPLOYEE	STATUS	DETAILS
(b) (6), (b) (7)(C)	Medley Global Advisors	Visitor	Meeting	(b) (6), (b) (7)(C)	06/11/2012	06/11/2012	Division	**LEO Registration**	Signed-In	

Visitor Registration *at the Federal Reserve Board*

CLEAR PENDING | SEARCH VISITORS | HELP

RESTRICTED FR

ABOUT THE VISITOR

**Required Field*

* FIRST NAME	(b) (6), (b) (7)(C)	* LAST NAME	(b) (6), (b) (7)(C)	M.I.	
* ORG/AGENCY	Medley Global Advisors	* VISITOR TYPE	Visitor		
SOCIAL SECURITY #		DATE OF BIRTH			
PASSPORT #		COUNTRY OF ISSUE			
* ESCORT TYPE	Division	* TIME EXPECTED	10 00 AM		
EMAIL					

ABOUT THE VISIT

*
Required Field
By selecting 'NO' in this drop down a new visit registration will be created for this visitor with following visit information
* UPDATE VISIT INFORMATION FOR ALL VISITORS IN THIS VISIT? -- SELECT --

REGISTRATION TITLE		* PURPOSE OF VISIT	Meeting
* DESTINATION	(b) (6), (b) (7)(C)	* EMPLOYEE VISITED	(b) (6), (b) (7)(C)
* START DATE	6/11/2012	* PERSON TO BE CONTACTED UPON ARRIVAL	
* END DATE	6/11/2012	ALTERNATE CONTACT #1	
CONTACT CELL PHONE #		ALTERNATE CONTACT #2	

UPDATE INFORMATION

DELETE VISITOR | UPDATE WAVES RELATED INFORMATION | CANCEL

How Bernanke Pulled the Fed His Way

By JON HILSENRATH

In late August, Federal Reserve Chairman Ben Bernanke argued on behalf of Fed programs to stimulate the lumbering U.S. economy and signaled that more might follow, making headlines in his highly anticipated speech at the Fed's annual retreat in Jackson Hole, Wyo.

As markets rallied at the prospect of new measures to ease credit, a quiet drama was unfolding behind the scenes. Mr. Bernanke was negotiating a high-stakes plan in a flurry of private conversations with colleagues hesitant about aggressively re-engaging the levers of America's central bank.

For weeks, Mr. Bernanke made dozens of private calls on days, nights and weekends, trying to build broad support for an unusual bond-buying program he wanted approved during the Fed's September meeting, according to people familiar with the matter.

(b)(5), (b)(7)(C), (b)(5) [redacted]

Fed officials in late summer were at odds over how far the central bank should go. Some wanted a bold, innovative program. Others weren't so sure; a few were opposed. Mr. Bernanke set his sights on a handful of fence-sitters who could swing a strong consensus to his side.

Interviews with more than a dozen people involved in the Fed decision, both supporters and opponents, show how Mr. Bernanke won over skeptics to advance his policy—a distinction in a Washington era marked by rancor and gridlock. These people also gave a rare view of the low-key persistence of the former economics professor.

(b)(5), (b)(7)(C), (b)(5) [redacted]

Mr. Bernanke didn't see inflation as a threat but viewed unemployment as a deeper problem than he had realized. The central bank, in his view, needed to act. The Fed chairman listened to colleagues' concerns during the calls, people familiar with the matter said, drawing out their reservations and probing for common ground. He eventually seized on a compromise that came from a little-known Fed governor.

(b)(5), (b)(7)(C), (b)(5) [redacted]

The result of the Fed's two-day meeting that began Sept. 12 was an 11-1 vote to undertake one of the central bank's most ambitious stimulus programs. The Fed announced it would buy $40 billion a month of mortgage-backed securities and, for the first time, promised to keep buying until the U.S. job market substantially improved.

The commitment marked a change from the stop-and-start programs the Fed had launched since the financial crisis.

"This is a 'Main Street' policy," Mr. Bernanke said after the September meeting. "What we are about here is trying to get jobs going." The bond buying aims to drive down long-term interest rates and push up the values of homes, stocks and other financial assets. Officials hope their commitment will jolt households and businesses into spending, investing and hiring.

Drawing broad support for the plan was important to Mr. Bernanke in part because the policies he was formulating could outlast him. His term as Fed chairman ends in January 2014. Seeing a

ATTACHMENT (3)

return to U.S. full employment as a distant goal, Mr. Bernanke needed the support of officials who might remain at the Fed after he left.

Roots of the Fed decision stretched to March, when Mr. Bernanke in a speech warned the U.S. economy wasn't growing fast enough. Since September 2011, the economy had produced about 200,000 jobs a month, driving down unemployment. But Mr. Bernanke warned that a slowdown would hobble hiring. Indeed, job gains by midyear fell to less than 100,000 a month.

At the central bank's June policy meeting, Fed Governor Daniel Tarullo, a lawyer appointed by President Barack Obama, said the economy felt like a vehicle "stuck in the mud," according to people there. The analogy stuck. A month later, Mr. Bernanke used the same phrase with Congress.

The meeting yielded what Mr. Bernanke considered an important step: the extension of Operation Twist, a Fed program to buy $45 billion of long-term Treasury securities each month, paid with the sales of short-term securities. The program—intended to put downward pressure on long-term rates—was supposed to expire on June 30. The Fed agreed to keep it going through December, giving Mr. Bernanke time to make sense of the slowing job market and consider further action.

To move forward, Mr. Bernanke needed to corral several colleagues, including regional Fed bank president Dennis Lockhart from Atlanta, who had a vote on the Federal Open Market Committee, the Fed's decision making body. Under Fed rules, four of the 12 regional Fed banks vote on the committee on a rotating basis; a fifth, the New York Fed, always votes.

Mr. Lockhart, a former banker who spent much of his career working in emerging markets, said in an interview after the September meeting that he had spent his summer trying to "take stock of the recovery." He debated whether the U.S. had an economy with a 3% growth trend that was hit by bad luck—Europe's financial turmoil, for one. Or was it an economy growing at a 2% annual rate that couldn't sustain job growth and needed help? A string of weak economic data suggested it was the latter.

Like others, Mr. Lockhart had reservations about the effectiveness of Fed policies. Earlier bond buying hadn't yet produced strong growth. The banking system, still damaged by the financial crisis, wasn't delivering credit the way economists expected, given historically low interest rates. Still, Mr. Lockhart thought a program targeting the U.S. housing market might help.

(b)(6), (b)(7)(C), (b)(5) [redacted]

Mr. Bernanke also worked on nonvoters, including Narayana Kocherlakota, who was going through his own transformation.

Several months after becoming president of the Minneapolis Fed in 2009, Mr. Kocherlakota believed the job market had structural problems beyond the reach of monetary policy—for example, too many construction workers who couldn't easily be trained for other jobs.

Mr. Kocherlakota joined Fed skeptics, so-called hawks, who doubted the effectiveness of central bank activism. During his turn as a Fed voter last year, he voted twice against loosening credit, moves championed by Mr. Bernanke.

Though they disagreed on policy, Mr. Bernanke and Mr. Kocherlakota were kindred spirits. Mr. Kocherlakota is a scholarly Ph.D. economist who enrolled at Princeton University at age 15. Mr. Bernanke, equally wonky, was later chairman of Princeton's economics department years later.

Mr. Kocherlakota and Mr. Bernanke exchanged emails over months, debating structural unemployment—the idea that unemployment was caused by mismatches between employer needs and the skills and location of workers. In Mr. Bernanke's view, employers weren't hiring because of weak demand for their goods and services, which Fed policies might help remedy.

(b) (6), (b) (7)(C), (b) (5) [redacted]

"I've learned a lot by talking to him," Mr. Kocherlakota said in an interview after the September meeting. Mr. Bernanke's "thinking is framed by data and models," he said. "It beats coming in there with just your gut."

By summer, Mr. Kocherlakota said, his views about structural unemployment were shifting as he found the evidence less than persuasive. This left an opening for Mr. Bernanke.

As the Fed's August meeting approached, Mr. Bernanke and his inner circle, which included Fed Vice Chairwoman Janet Yellen and New York Fed President William Dudley, were thinking that any Fed action should be a comprehensive and novel package, rather than an incremental step, according to people familiar with their views. They agreed to take time to confirm their views of the U.S. economy and develop consensus for a plan.

The August meeting turned into a policy staging ground. One proposal on an internal list of three policy options was a new bond-buying program, according to people familiar with the list. Mr. Bernanke didn't push. But it allowed a chance for officials to debate the pros and cons of a new program—in effect, a practice run for September.

(b) (6), (b) (7)(C), (b) (5) [redacted]

Some officials argued for more bond buying. Others worried about the Fed turning into too big a player in bond markets, disrupting trading in Treasury securities or mortgage securities. Fed staff wrote a memo ahead of the meeting detailing the market's capacity to absorb central bank purchases of Treasury bonds and mortgage-backed securities. They found that the Fed could carry on a large program for a couple of years if needed without disturbing markets. The finding helped set boundaries for what the Fed could do and for how long.

(b) (6), (b) (7)(C), (b) (5) [redacted]

The Fed's policy committee emerged from the August meeting with familiar fissures. Opponents of the Fed's easy-money policies said the measures weren't giving the economy much of a lift, while risking future inflation.

Dallas Fed president Richard Fisher said the Fed was like a doctor over-prescribing Ritalin to attention-deficient Wall Street traders. Richmond Fed president Jeffrey Lacker dissented in August for the fifth straight meeting, taking issue with a policy already in place: An assurance the Fed had given that short-term interest rates would remain near zero through late 2014. Philadelphia Fed President Charles Plosser said in an interview that he urged Mr. Bernanke to wait until year-end before deciding on any new programs.

Despite their public disagreements, Fed officials were friendly behind the scenes. Mr. Plosser, who favors tighter credit policies, and the Chicago Fed's Charles Evans, who wants easier credit, play golf together. They joined Mr. Fisher and Mr. Lockhart for a round at the Chevy Chase Country Club after the August meeting.

By late summer, the Fed had made clear it was prepared to act if the economy continued to languish. The question was how?

Many Fed activists wanted a open-ended program of bond purchases that would continue until the economy improved. Among them, some wanted to go big—at least a few hundred billion dollars worth over several months—with a promise to keep buying as needed. Moreover, some wanted to replace Operation Twist with bigger purchases of mortgage-backed securities and Treasurys.

As the September meeting neared, Mr. Bernanke needed to assure colleagues who still had reservations about moving too aggressively. In addition to Mr. Lockhart, Cleveland Fed president Sandra Pianalto had been wavering. She was among those who worried more Fed bond buying could disrupt markets.

(b) (6), (b) (7)(C), (b) (5) [redacted]

Another fence-sitter was Washington-based Fed Governor Elizabeth Duke, a plain-spoken Virginia banker nominated to the Fed board by President George W. Bush in 2007.

Fed officials described the Fed chairman's phone calls as low-pressure conversations. Mr. Bernanke sometimes dialed up colleagues while in his office on weekends, catching them off guard when their phones identified his private number as unknown. He gave updates on the latest staff forecasts, colleagues said. He asked their thoughts and what they could comfortably support, they said.

The calls helped Mr. Bernanke gauge how far he could push his committee. It also won him trust among some of his fiercest opponents, officials said. Nearly all of Mr. Bernanke's colleagues described him as a good listener.

(b) (6), (b) (7)(C), (b) (5) [redacted]

"Even if you disagree with him on the programs, you know your voice has been heard," said Mr. Fisher, one of his opponents. "There is no effort to bully."

Negotiations stepped up in the week before the meeting. Fed staff circulated language for policy options. Officials debated how different approaches would be described in the policy statement, which would be released after the meeting.

(b) (6), (b) (7)(C), (b) (5) [redacted]

Officials at Fed policy meetings typically consider three options: one representing activists who want to use monetary policy aggressively; another supporting officials seeking conservative use; and a middle-ground option that typically prevails.

The premeeting documents this time listed four options, including an aggressive approach favored by activists, and no bond buying, favored by hawks. Among two middle-ground proposals was a compromise that Ms. Duke originated.

(b) (6), (b) (7)(C), (b) (5) [redacted]

Five days before the meeting, Mr. Bernanke took time out for the Washington Nationals—his favorite baseball team was having a dream season. He arrived at the ballpark in a worn Nationals cap and wandered the infield during batting practice.

"I wanted to ask him if I should get some gold and silver but I bit my tongue," said Nationals manager Davey Johnson. Instead, they talked about how Mr. Johnson, a math major, used statistics to manage his lineup.

At the meeting the following week, the Fed adopted the compromise that Ms. Duke helped spur. The Fed would continue Operation Twist through December but add an open-ended mortgage-bond buying program.

Activists got what they most wanted: An open-ended commitment to buy mortgage bonds until the job market improved, with the strong possibility of additional Treasury purchases later. Fence-sitters got a promise to review the plan before deciding to proceed with a bigger program in 2013. Mr. Lockhart said the chance to reassess the program based on inflation and the performance of the job market helped win him over.

(b) (6), (b) (7)(C), (b) (5) [redacted]

With an agreement on bond buying largely in place, Fed officials at the September meeting left unanswered this question: When could they leave growth of the U.S. economy on its own? Mr. Kocherlakota and Mr. Evans failed to get agreement for inflation and unemployment thresholds to determine when to raise short-term rates, according to people familiar with the talks. "It's an ongoing discussion," Mr. Plosser said. "We will probably continue to work on this."

(b) (6), (b) (7)(C), (b) (5) [redacted]

OFFICE OF INSPECTOR GENERAL
BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
CONSUMER FINANCIAL PROTECTION BUREAU
WASHINGTON, DC 20551

MEMORANDUM

TO: Investigative File 2013-0013-HQO.

FROM: (b) (6), (b) (7)(C)
(b) (6), (b) (7)(C)

SUBJECT: AIGI Case Closing Memorandum.

In accordance with OI Policy IN-006, Section 8-2 (effective September 30, 2014), this closed investigative file has been reviewed by the AIGI for purposes of quality control and compliance measurements (where applicable against the below criteria) consistent with OI policy and the CIGIE Quality Assessment Review for OIG Offices of Investigation (*Check all that apply*):

- ☐ FBI Letter NO
- ☑ Original Complaint and predicating documents
- ☑ Investigative plan ~~NO~~ Yes
- ☑ Investigative notes
- ☐ Documented Quarterly Progress Reviews NO
- ☑ Investigation File Report includes Quarterly Status Reports and/or Closing Status Report OK old
- ☐ Actions claimed and reported N/A OK
- ☑ Rights Warnings given
- ☑ Sworn Statement taken
- ☐ Sensitive Investigations
- ☑ Confidentiality Requested
- ☐ Special Investigation
- ☐ Employee Investigation
- ☐ OGE Form 278 required and completed
- ☐ Undercover Operation
- ☐ Consensual Monitoring
- ☐ Electronic surveillance/monitoring
- ☑ Use of registered Confidential Informants and/or Confidential Sources of Information
- ☑ Evidence or third-party documents returned or destroyed

2/4/15
(Review Date)

(b) (6), (b) (7)(C)

Investigation File Report

I20130013-HQO

Investigation Details

Investigation Title: Release of Confidential Information - FOMC **Status:** Investigation Closed

Program Area: Federal Reserve Board **Date Created:** 03/13/2013 **Date Recelevd:** 02/15/2013

Priority: 1: Threats, Disclosure of Nonpublic FOMC Information, Computer Incidents, Security Incident, or Emergency Response

Federal Reserve System: FR Board **Source:** Anonymous

City, State: Washington District of Columbia **Division:** Other

Lead Agent: (b) (6), (b) (7)(C) **Date Assigned:** 04/11/2014 **Date Opened:** 04/11/2014

Internal/Confidential: Yes **Congressional Interest:** No **Assisting Agencies:** No

Waived: No **Employee Case:** Yes **Law Enforcement:** No

Victim Class: Other FR Operations **Related Files:** No

Program Activity: FRB - Other FRS Operations **Total Investigative Hours Charged:** 0

Principal Subject: **Investigative Staffing Costs:** 0.00

Offense Class: Disclosure of Information **Other Investigative Staffing Costs:** 0.00

Investigation Result: Closed - No Further Action

Date Closed: 12/01/2014 **Date Reopened:**

Synopsis

The OIG initiated this investigation based on an anonymous complaint regarding the possible leak of confidential Federal Open Market Committee (FOMC) meeting information. It is alleged that a board employee is believed to have leaked FOMC information to a private citizen prior to the information being released to the public. According to the information provided in the complaint, the private citizen is an executive at an investment firm who published the FOMC information in a newsletter subscribed to by the executive's clients. It is also alleged that the executives firm and its clients may have been able to profit from this information. [redacted] The OIG is investigating this matter for possible criminal and administrative violations.

(b)(6), (b)(7)(C)

[redacted]

(b)(6), (b)(7)(C)

[redacted]

APRIL 1, 2014, QUARTERLY REPORT

During the reporting period interviews were conducted with four contributors to the FOMC minutes. The contributors were interviewed as potential subjects in the investigation. Interviews with three of the subjects determined that they did not know or have any contact with the authors of the articles that contained the confidential FOMC information. An interview with a fourth subject determined that [redacted] had a relationship with the author of the newsletter and maintained a friendship. The subject admitted that [redacted] met with and shared email messages with the author of the newsletter. The subject denied discussing any FOMC related information with the author.

Also during the period, more than 100,000 emails of key subjects of the investigation were reviewed for contact with the authors. The email search revealed that several Board employees in Public Affairs, Monetary Affairs and Research and Statistics had direct contact with the Authors either through email or personal interviews conducted at the Board. Additional interviews will be determined based on the results of the email review.

JULY 1, 2014, QUARTERLY REPORT

During the reporting period, the investigation into the release of confidential Federal Open Market Committee (FOMC) meeting information that appeared in a Wall Street Journal article dated September 28, 2012 and a newsletter published by Medley Global Advisors on October 3, 2012 determined during the period, based on email reviews and telephone toll record reviews that three persons had direct contact with the writers of the article and newsletter. Interviews were conducted and determined that the three Board staff had both personal and professional relationships with the writers. Each person interviewed denied that they were the source of the leak.

The investigation was unable to determine the source of the leak of confidential FOMC information that appeared in the Wall Street Journal on September 28, 2012 and the report by Medley Global Advisors on October 3, 2012. In summary, the OIG investigation determined the following:

The Wall Street Journal article by Jon Hilsenrath and the report by Medley Global Advisors appeared to contain confidential FOMC information prior to its release to the public.

The early release of confidential FOMC information in both publications is a violation of the Program for the Security of FOMC Information and the FOMC Policy on External Communications of Committee Members.

While information was developed indicative of close or personal relationships between Hilsenrath, Schleiger, and some Board staff, no evidence was found to indicate any of those individuals released the FOMC information.

The Program for the Security of FOMC Information states that the FOMC General Counsel and Secretary will conduct a review of the leak and, "in light of review results, the general counsel will determine whether to request the Board's inspector general to perform an investigation of the incident." However, the decision of the FOMC the Board's inspector general to perform an investigation of the incident." However, the decision of the [redacted] not to report both leaks to the OIG in this matter may have impacted the ability of the OIG to thoroughly pursue this matter.

During the investigation, the OIG did not have access to Federal Reserve System staff members who may have had access to confidential Class I FOMC information. The OIG requested that the [redacted] access to information developed during [redacted] investigation which may have identified Reserve Bank System employees who reported contact with Hilsenrath or Schleiger however, the information was not provided. Accordingly, based on the inability to pursue such leads, the investigation was limited in scope.

Based on extensive telephone and e-mail reviews and analysis, the investigation has not identified any other investigative leads. No other viable leads were developed through interviews.

OCTOBER 1, 2014, QUARTERLY REPORT

During the reporting period the reporting agent provided to the AIGI an investigative summary. Based on the information obtained during the investigation, the OIG is unable to determine the source of the leak of confidential FOMC information that appeared in the Wall Street Journal on September 28, 2012 and the report by Medley Global Advisors on October 3, 2012.

The OIG investigation determined the following:

Based on interviews with Board staff and e-mail reviews, the article by Jon Hilsenrath and the newsletter by Regina Schleiger contain confidential FOMC information prior to its release to the public.

The appearance of confidential FOMC information in the publications by Hilsenrath and Schleiger violates the Program for the Security of FOMC Information and the FOMC Policy on External Communications of Committee Members.

[redacted]

The results of the investigation were reviewed by OIG senior management which concurred with the findings.

DECEMBER 1, 2014 CLOSING STATUS REPORT

Based on the results of the investigation, no further action is warranted. The Inspector General will discuss the results of the investigation with Board staff as deemed appropriate. The Securities and Exchange Commission was contacted regarding the conclusion of the investigation and the investigative records will be made available if deemed appropriate.

Status Reports

03/25/2013: Interview conducted with (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) (b) (6), (b) (7)(C). The purpose of the meeting was (b) (6), (b) (7)(C) release of FOMC information.
06/03/2013: Access to IMIS case, Statement of Independence added.
07/29/2013: Developed profile and questions of the sixty persons interviewed by Board Legal and Monetary Affairs during their inquiry into the premature release of FOMC information.
08/23/2013: Interview conducted with (b) (6), (b) (7)(C)
10/10/2013: Requested access to FOMC information for OIG agents.
12/05/2013: Interviewed (b) (6), (b) (7)(C) . (b) (6), (b) (7)(C) advised that (b) (6) did not know (b) (6), (b) (7)(C) or (b) (6), (b) (7)(C)
12/05/2013: Received 1500 emails for review related to (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) The results of the initial review identified 300 emails of interest for further review as well as identified additional subjects for interviews.
02/25/2014: (b) (6), (b) (7)(C) interviewed. (b) (6), (b) (7)(C) advised that (b) (6) did not know (b) (6), (b) (7)(C) or (b) (6), (b) (7)(C)
02/27/2014: On 02/26/2014, reviewed email. Additional email was requested for additional subjects identified. Received visitors registration log for (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C)

Assignment Details

(b) (6), (b) (7)(C) SAC, 03/26/2013;
(b) (6), (b) (7)(C) Case Agent, 02/25/2014;
(b) (6), (b) (7)(C), Case Agent, 05/15/2013;
(b) (6), (b) (7)(C), Case Agent, 05/15/2013;
(b) (6), (b) (7)(C), Lead Agent, 05/15/2013

Assisting Agencies

Potential Violations

18 USC§1905 Disclosure of Confidential Information

Dispositions and Referrals

Law Enforcement Activities

Related Files

File Number	Title	Date Created

Entities

OFFICE OF INSPECTOR GENERAL

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

CONSUMER FINANCIAL PROTECTION BUREAU

August 11, 2014

MEMORANDUM

TO: [redacted]

FROM: [redacted] Special Agent in Charge, [redacted]

SUBJECT: Recommendation to Close I20130013-HQO

Summary

The Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) has completed its investigation into the release of confidential Federal Open Market Committee (FOMC) meeting information that appeared in a Wall Street Journal article dated September 28, 2012 and a newsletter by Medley Global Advisors on October 3, 2012. At the time the confidential information appeared in the article and newsletter, the details of the FOMC meeting and minutes had not been released to the public. The minutes for the September 12, 2012 FOMC meeting were released to the public on October 4, 2012.The leak of the confidential information is potential violation of the Board's Program for the Security of FOMC information and the FOMC Policy on External Communications of Committee Participants.

The OIG initiated its investigation based a referral from the [redacted] who received an anonymous complaint that [redacted] The OIG investigation identified the complainant as Confidential Source 20130001 (CS). The CS reported that [redacted]

Background

***Program for Security of FOMC Information** as amended January 28, 2014*

The OIG reviewed the Program for Security of FOMC information which states the following:

> The Program for Security of FOMC Information, describes what confidential FOMC information is, how it is classified, who has access to it, how it should be handled, and who is responsible for ensuring that it is protected. Everyone with access to confidential FOMC information is required to review and abide by the rules.
>
> Confidential FOMC information includes all privileged information that comes into the possession of the Governors, Federal Reserve Bank Presidents, or Federal Reserve System staff in the performance of their duties for, or pursuant to the direction of, the FOMC. Such information covers, but is not limited to, expressions of policy views at FOMC meetings, reasons for those views, votes of the FOMC, and staff forecasts. The information that must be kept confidential may be in any form. It includes not only paper documents but also electronic messages and files, recordings, notes, oral briefings, and discussions relating to confidential FOMC matters.

Access to Confidential FOMC Information within the Federal Reserve System

Section IV of the Policy for the Security of FOMC Information States:

> Staff access to confidential FOMC information, which includes Class I, Class II, and Class III information, requires prior authorization. Before gaining access and annually thereafter, staff members, including office support staff, must receive, review, and agree to abide by the rules for handling confidential information that are referred to in this document.
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> At each Federal Reserve Bank, the president, or the research director on the president's behalf, is responsible for designating those individuals to be given access to each class of information. At the New York Bank, the manager of the System Open Market Account may also designate staff on behalf of the president. At the Board, that responsibility is assumed by the Chairman or the Committee secretary on the Chairman's behalf and by Board members for their assistants. Access at the New York Bank and the Board of Governors is limited on a strict "need-to-know" basis. Access at the other Federal Reserve Banks is also limited on a strict "need-to- know" basis and is subject to the numerical limits noted below. In complying with these limits, Federal Reserve Banks may designate different individuals to have access to different documents. For example, one slot could be filled by designating an international economist as having access to all special memoranda relating to foreign currency operations, and a domestic economist as

having access to other Class I and Class II memoranda. At each institution, access to Class I, Class II, and Class III information should be reviewed carefully at least once every year.

A. Access to "Class I FOMC – Restricted Controlled (FR)" materials at Federal Reserve Banks other than the New York Bank (and the Federal Reserve Bank that serves as the backup site for Open Market Operations) is restricted to the president and first vice president and to seven other Federal Reserve Bank personnel as well as a limited number of office support staff.
B. Access to "Class II FOMC – Restricted (FR)" materials at Federal Reserve Banks other than the New York Bank (and the Federal Reserve Bank that serves as the backup site for Open Market Operations) is restricted to the president and first vice president and to eleven other Federal Reserve Bank personnel as well as a limited number of office support staff.
C. Access to "Class III FOMC – Internal (FR)" information is limited on a "need-to- know" basis, but no specific limit is set on the number of individuals who may have access to such information at each location.

Access to Confidential FOMC Information Outside of the Federal Reserve System

Section V of the Policy for the Security of FOMC Information states:

> Access to classified FOMC information outside the Federal Reserve System is limited as follows:
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> A. Confidential FOMC documents generally are made available to the public after a lag of about five years. Such availability is subject to staff review (including consultation with the Chairman or the Committee where appropriate) for the purpose of redacting any materials that are still deemed to be sensitive after five years. For example, confidential information obtained from or about particular individuals or businesses, foreign governments and central banks, and international institutions that is deemed sensitive after the five year lag will be protected. In addition, national security classified information that may be contained in FOMC documents remains confidential until it is declassified. The principal objectives of the Committee's policy of withholding sensitive information after the five year lag are to preserve the Committee's ability to collect needed information, to allow its representatives to participate in sensitive discussions and report on them to the Committee, to avoid disclosures that would adversely affect U.S. international relations, and to comply with the applicable laws governing the disclosure of confidential information.

B. Staff officers of the Committee, and those designated by the Chairman, are authorized to transmit pertinent information on System foreign currency operations to appropriate officials of the Treasury Department.

C. The Chairman may make ad hoc exceptions to this section that are either more or less restrictive for particular documents or for other confidential information.

FOMC Policy on External Communications of Committee Participants

Effective January 29, 2013 the FOMC Policy on External Communications of Committee Participants was amended and states the following:

> The Federal Open Market Committee (FOMC) is committed to providing clear and timely information to the public about the Committee's monetary policy actions and the rationale for those decisions. Indeed, considerable evidence indicates that central bank transparency increases the effectiveness of monetary policy and enables households and businesses to make better informed decisions.
>
> Two-way communication with the public is a crucial element in the FOMC's monetary policy process. Committee participants have regular contacts with members of the public as part of the process of gathering the information the Committee needs to understand current economic and financial conditions. In addition, the FOMC's public accountability is strengthened by open discussion of Committee participants' views about the economic outlook as well as their judgments about the appropriate course of monetary policy.
>
> Therefore, to reinforce the public's confidence in the transparency and integrity of the monetary policy process, the FOMC has established the following principles to govern Committee participants' contacts with members of the public. The FOMC itself maintains responsibility for ensuring that all Committee participants—that is, the members of the Federal Reserve Board and the presidents of the Federal Reserve Banks—abide by these principles

The Policy outlines the following prohibited external communications.

1. Disclosure in any setting of confidential FOMC information.

2. Disclosure or characterization in any setting of the views that others expressed at an FOMC meeting.

3. A prediction about Committee action in advance of the Committee announcement of its decision.

4. A private meeting with selected clients of a regulated entity or financial

firm to discuss monetary policy.

In summary, the information provided to the OIG alleged that the Wall Street Journal article and the report by Medley Global Advisors contained information which appears to have been released in violation of one or more of the external communication prohibitions.

Investigation

Interview with CS20130001

(b) (6), (b) (7)(C), (b) (7)(D)

[redacted]

Analysis of Wall Street Journal Article by Jon Hilsenrath

On September 28, 2012 an article was published at http://online.wsj.com by Jon Hilsenrath (Hilsenrath), Chief Economics Correspondent entitled How Bernanke Pulled the Fed His Way. In his article, Hilsenrath discusses details of activity by former Federal Reserve Chairman Ben Bernanke and FOMC participants leading up to the September 12, 2012, FOMC meeting.

The OIG review of the article identified sections that appear to show that Hilsenrath had direct inside knowledge of activity leading up to and during the September FOMC meeting. In his article, Hilsenrath makes the following statement related to a policy debate leading up to the September FOMC meeting:

> Negotiations stepped up in the week before the meeting. Fed staff circulated language for policy options. Officials debated how different approaches would be described in the policy statement, which would be released after the meeting.

The OIG investigation determined through e-mail and interviews that this information related to the policy discussions was not in the public domain at the time the article was published.

In another statement from Hilsenrath's article he states:

> The meeting yielded what Mr. Bernanke considered an important step: the extension of Operation Twist, a Fed program to buy $45 billion of long term Treasury securities each month, paid with the sales of short-term securities. The program-intended to put downward pressure on long-term rates was supposed to expire on June 30. The Fed agreed to keep it going through December, giving Mr. Bernanke time to make sense of the slowing job market and consider further action.

The OIG interview determined that the FOMC minutes, released on October 4, 2012 contained information related to the purchase of $45 billion per month in long term treasury securities. This information was not part of the former Chairman's statement released on September 13, 2012 and was not in the public domain prior to the publishing of the minutes. The FOMC minutes stated the following related to the purchase of $45 billion in Treasury securities and downward pressure on long term interest rates:

> In their discussion of monetary policy for the period ahead, members generally expressed concerns about the slow pace of improvement in labor market conditions and all members but one agreed that the outlook for economic activity and inflation called for additional monetary accommodation. Members agreed that such accommodation should be provided through both a strengthening of the forward guidance regarding the federal funds rate and purchases of additional agency MBS at a pace of $40 billion per month. Along with the ongoing purchases of $45 billion per month of longer-term Treasury securities under the maturity extension program announced in June [the OIG review of the June 2012 FOMC minutes determined that the rate of purchase for long-term Treasury securities was quoted as $44

> billion], these purchases will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year, and should put downward pressure on longer-term interest rates, support mortgage markets, and help make broader financial conditions more accommodative.

Hilsenrath also outlines details related to a policy debate amongst FOMC participants. Hilsenrath's article states:

> Fed staff circulated language for policy options. Officials debated how different approaches would be described in the policy statement, which would be released after the meeting

The statements in Hilsenrath's article reflects information in the FOMC minutes and activity associated with policy discussions and decisions that had not yet been released to the public at the time the article was published. The publication of this information in the Wall Street Journal represents communication of FOMC information to Hilsenrath that is in violation of the Program for the Security of FOMC Information and the FOMC Policies on External Communications.

The OIG, through interviews and e-mail analysis further identified a document prepared by Board staff member (b) (6), (b) (7)(C) who through direct conversation with Hilsenrath and review of the article, outlined sections of the article that are in violation of FOMC policies. Hilsenrath was not interviewed by the OIG for this investigation.

Analysis of Medley Global Advisor's Newsletter

On October 3, 2012, Medley Global Advisors (MGA) published in its newsletter a Special Report by Regina Schleiger, Senior Managing Director, Global Macro, titled Fed: December Bound. Throughout the newsletter, Schleiger refers to what will be contained in the FOMC minutes released on October 4, 2012. In a section of Schleiger's newsletter states that:

> The minutes, due at 2 p.m. EDT tomorrow,[October 4, 2012] will also highlight the intense debate between Federal Open Market Committee participants over the efficacy of using the balance sheet to ease conditions further and reference again, other potential policy tools, including changes to the 2015 predictive guidance.

The FOMC minutes for September 2012, under the section "Participants' Views on Current Conditions and the Economic Outlook" outlines committee member's views and their discussion related to long-term asset purchases. The minutes also reflect the differing views of committee members. The minute's state:

> Participants again exchanged views on the likely benefits and costs of a new large-scale asset purchase program. Many participants anticipated that such a program would provide support to the economic recovery by putting downward pressure on longer-term interest rates and promoting more accommodative financial conditions.

> A number of participants also indicated that it could lift consumer and business confidence by emphasizing the Committee's commitment to continued progress toward its dual mandate. In addition, it was noted that additional purchases could reinforce the Committee's forward guidance regarding the federal funds rate. Participants discussed the effectiveness of purchases of Treasury securities relative to purchases of agency MBS in easing financial conditions. Some participants suggested that, all else being equal, MBS purchases could be preferable because they would more directly support the housing sector, which remains weak but has shown some signs of improvement of late. One participant, however, objected that purchases of MBS, when compared to purchases of longer-term Treasury securities, would likely result in higher interest rates for many borrowers in other sectors. A number of participants highlighted the uncertainty about the overall effects of additional purchases on financial markets and the real economy. Some participants thought past purchases were useful because they were conducted during periods of market stress or heightened deflation risk and were less confident of the efficacy of additional purchases under present circumstances. A few expressed skepticism that additional policy accommodation could help spur an economy that they saw as held back by uncertainties and a range of structural issues. In discussing the costs and risks that such a program might entail, several participants reiterated their concern that additional purchases might complicate the Committee's efforts to withdraw monetary policy accommodation when it eventually became appropriate to do so, raising the risk of undesirably high inflation in the future and potentially unmooring inflation expectations. One participant noted that an extended period of accommodation resulting from additional asset purchases could lead to excessive risk taking on the part of some investors and so undermine financial stability over time

In reference to Schleiger's statement on the 2015 predictive guidance, the minute's state:

> While members generally viewed the potential risks associated with these purchases as manageable, the Committee agreed that in determining the size, pace, and composition of its asset purchases, it would, as always, take appropriate account of the likely efficacy and costs of such purchases. With regard to the forward guidance, the Committee agreed on an extension through mid-2015, in conjunction with language in the statement indicating that it expects that a highly accommodative stance of policy will remain appropriate for a considerable time after the economic recovery strengthens.

The newsletter further states:

> The minutes of September's meeting will show, however, that the groundwork for further action in coming months has been laid and that labor market improvement is unlikely to be substantial enough to stave off new Treasury purchases into 2013.

The FOMC minutes for September 2012, under the section "Participants' Views on Current Conditions and the Economic Outlook" outline a decision by committee member's to continue the purchase of mortgage backed securities as well as to undertake the purchase of treasury securities under the maturity extension program.

> Participants discussed the effectiveness of purchases of Treasury securities relative to purchases of agency MBS [Mortgage Backed Securities] in easing financial conditions. Some participants suggested that, all else being equal, MBS purchases could be preferable because they would more directly support the housing sector, which remains weak but has shown some signs of improvement of late. One participant, however objected that purchases of MBS, when compared to purchases of longer-term Treasury securities, would likely result in higher internet rates for many borrowers in other sectors.

The newsletter continued by stating:

> The monthly MBS purchases of around $40 billion launched in September will continue alongside this new program. Tomorrow's minutes will reference a staff paper that concludes the market has capacity to absorb purchases this large for a period of time.

The OIG review of the minutes determined that the minutes do not specifically address a "staff paper" but do speak to a "staff presentation that outlines the purchase of MBS. The OIG further confirmed through interviews and e-mail reviews that a paper entitled "Options for an Additional LSAP [Large Scale Asset Purchase]" was presented at the September FOMC meeting. The minute's state under the heading; "Potential Effects of a Large-Scale Asset Purchase Program:"

> The staff presented an analysis of various aspects of possible large-scale asset purchase programs, including a comparison of flow-based purchase programs to programs of fixed size. The presentation reviewed the modeling approach used by the staff in estimating the financial and macroeconomic effects of such purchases. While significant uncertainty surrounds such estimates, the presentation indicated that asset purchases could be effective in fostering more rapid progress toward the Committee's objectives. The staff noted that, for a flow-based program, the public's understanding of the conditions under which the Committee would end purchases would shape expectations of the magnitude of the Federal Reserve's holdings of longer-term securities, and thus also influence the financial and economic effects of such a program. The staff also discussed the potential implications of additional asset purchases for the evolution of the Federal Reserve's balance sheet and income. The presentation noted that significant additional asset purchases should not adversely affect the ability of the Committee to tighten the stance of policy when doing so becomes appropriate. In their discussion of the staff presentation, a few participants noted the uncertainty surrounding estimates of the effects of large-scale asset purchases or the need for additional work regarding the implications of such purchases for the normalization of policy.

Schleiger's reference to a "staff paper" which is not specifically mentioned in the minutes and was an internal FOMC presentation suggests some direct knowledge of specific activity conducted during the FOMC meeting.

Schleiger's comments in her newsletter appear to be inferences based on information stated in the minutes and discussions during the FOMC meeting. Schleiger also appears to have some direct knowledge of internal FOMC procedures related to the development of the "Teal Book" when she states:

> In the week leading up to the meetings, the options are circulated and can change—sometimes markedly—by the time the participants gather around the table. The "Teal Book," which contains the staff forecasts and the policy options, is circulated in two parts. The staff forecasts circulate first and what used to be known as the "Blue Book," which contains the policy options, follows.

The OIG analysis determined that the newsletter contained specific information related to discussions of FOMC procedures and meeting activity prior to the release of the FOMC minutes to the public. The information contained in the newsletter that relates to policy discussions, and presentations appears to be in violation of the Policy for the Security of FOMC Information and the FOMC Policy on External Communications of Committee Participants. Schleiger was not interviewed by the OIG for this investigation.

<u>Interview with (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C)</u>

On March 25, 2013, the OIG met with (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) The purpose of the meeting was to discuss (b) (6), (b) (7)(C) the publication of information contained in the September 12, 2012 FOMC minutes prior to the public release.

(b)(6), (b)(7)(C)

(b)(6), (b)(7)(C) [redacted]

The OIG also asked [redacted] to provide any notes, reports of interviews and analysis prepared during [redacted] review in order to assist the OIG with its investigation. [redacted] said that there were no official reports written and that some notes may be available. During the OIG's interview with [redacted] and [redacted] [redacted] was asked to provide the OIG with the final report of their review. [redacted] said [redacted] would not provide OIG with a copy of the final report because it contained FOMC information the OIG was not entitled to receive.

[redacted] was asked by the OIG if there were any other matters related to a leak of FOMC information that were part of the review conducted by [redacted] and [redacted] In response, [redacted] said [redacted] would not answer the question. Neither [redacted] nor [redacted] provided any information regarding the leak of information contained in the Wall Street Journal Article by Jon Hilsenrath. Neither [redacted] nor [redacted] acknowledged that [redacted] review included information that appeared in the Wall Street Journal article by Jon Hilsenrath. [redacted] provided a list of approximately sixty individuals [redacted] reported were interviewed by the review team or had access to confidential FOMC information. [redacted] did not provide any information the review team gathered during their review or a copy of their final report.

Between August 2013 and February 2014, the OIG interviewed five individuals responsible for preparation of the September 12, 2012 FOMC minutes. Of those interviewed who participated in the preparation of the FOMC minutes, none reported knowing or having a personal relationship with Hilsenrath or Schleiger

Analysis of Telephone Toll Records

The OIG obtained access to archived toll records from Board IT, AV/Voice section. The OIG searched the toll records for telephone numbers [redacted] and [redacted] identified through e-mail reviews as belonging to [redacted]. The OIG also searched toll records for telephone numbers [redacted] and [redacted] identified through e-mail reviews as numbers associated with Medley Global Advisors. The OIG searched telephone records for the period August 1, 2012 – October 31, 2012, which encompasses the month prior to the September FOMC meeting and one month after the conclusion of the meeting. The results of the telephone search revealed that between August 23, 2012 and September 24, 2012, telephone number [redacted] which is a number identified as belonging to [redacted] contacted the Board eight times. The toll records associated with [redacted] telephone number were contacts with Board telephone extension [redacted], which is the extension of [redacted], [redacted]

Analysis of E-mails

From December 5, 2013 through April 7, 2014 the OIG reviewed e-mails as part of this investigation. The OIG requested all e-mails from the Board IT, Messaging Service that contained the addresses @wsj.com and @medleyadvisors.com in an attempt to identify individuals who may have had direct contact with Hilsenrath or Schleiger. The e-mail files were searched to identify names of Board personnel who had direct contact with Hilsenrath and Schleiger. The e-mails were searched for the period August 1, 2012 through October 31, 2012. The initial search resulted in a request to Board IT for all available e-mails related to Board staff identified as having contact with Hilsenrath and Schleiger. The OIG reviewed in excess of one hundred thousand e-mails and identified three persons as having direct contact with either Hilsenrath or Schleiger. As a result, the OIG interviewed [redacted] and [redacted].

Interview of [redacted]

On March 28, 2014, the OIG interviewed [redacted]

(b)(6), (b)(7)(C)

[redacted]

Interview of (b) (6), (b) (7)(C)

On April 7, 2014, the OIG interviewed (b) (6), (b) (7)(C)

(b)(6), (b)(7)(C)

[redacted]

(b)(6), (b)(7)(C)
[redacted]

Interview of (b) (6), (b) (7)(C) [redacted]

On April 7, 2014, the OIG interviewed (b) (6), (b) (7)(C) [redacted]
(b)(6), (b)(7)(C)
[redacted]

(b)(6), (b)(7)(C)

(b)(6), (b)(7)(C)

(b)(6), (b)(7)(C) [redacted]

Status of the Investigation

On May 1, 2014, the OIG again interviewed the CS regarding any additional information he/she could provide that would assist the OIG's investigation. (b)(6), (b)(7)(C) [redacted]

(b)(6), (b)(7)(C) [redacted]

Based on the information obtained during the investigation, the OIG is unable to determine the source of the leak of confidential FOMC information that appeared in the Wall Street Journal on September 28, 2012 and the report by Medley Global Advisors on October 3, 2012.
The OIG investigation determined the following:

- Based on interviews with Board staff and e-mail reviews, the article by Jon Hilsenrath and the newsletter by Regina Schleiger contain confidential FOMC information prior to its release to the public.

- The appearance of confidential FOMC information in the publications is a violation of the Program for the Security of FOMC Information and the FOMC Policy on External Communications of Committee Members.

- [redacted]

During the investigation, the OIG did not have access to Federal Reserve System staff members who had access to confidential Class I FOMC information. The OIG requested that [redacted] provide access to information developed during the investigation that identified Reserve System employees who reported contact with Hilsenrath or Schleiger. [redacted] questioned the IG's authority to investigate this matter and any information as it relates to the Reserve banks. Based on the inability to pursue this matter as it relates to reserve bank staff, the OIG's scope is limited. Based on extensive telephone and e-mail reviews the OIG has not identified any other logical investigative leads. It is suggested that this matter be closed.

OFFICE OF INSPECTOR GENERAL
BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
CONSUMER FINANCIAL PROTECTION BUREAU
WASHINGTON, DC 20551

January 30, 2015

(b) (6), (b) (7)(C)
United States Securities and Exchange Commission
(b) (6), (b) (7)(C)
Chicago, IL 60604

Dear (b) (6), (b) (7)(C)

The Office of Inspector General (OIG) for the Board of Governors of the Federal Reserve System (Board) and the Consumer Financial Protection Bureau (CFPB) is forwarding the enclosed summary memorandum of a closed OIG investigation for your review and assessment, which may be relevant to a potential violation of civil or criminal law, rule, regulation, order, or policy within your jurisdiction.

The enclosed memorandum has been redacted to protect confidential Federal Open Market Committee (FOMC) information that is covered by the FOMC's *Program for Security of FOMC Information.* In accordance with the FOMC's information security program, confidential FOMC information is defined as including all privileged information that comes into the possession of the Federal Reserve's Board of Governors, Federal Reserve Bank presidents, or Federal Reserve System staff in the performance of their duties for, or pursuant to the direction of, the FOMC.

This document is being provided to you for official use only. The information contained here and in the enclosed memorandum is the property of the OIG and may not be copied or disclosed without the permission of the OIG. Appropriate safeguards should be provided for the information. Public disclosure of this information is determined by the Freedom of Information Act, 5 U.S.C. § 552, and the Privacy Act of 1974, 5 U.S.C. § 552a.

If you have any questions concerning this matter, please feel free to contact Special Agent in Charge (b) (6), (b) (7)(C)

Sincerely,

(b) (6), (b) (7)(C)

AUTHORIZED FOR RELEASE

Enclosures

OFFICE OF INSPECTOR GENERAL

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

CONSUMER FINANCIAL PROTECTION BUREAU

August 11, 2014

MEMORANDUM

TO: (b) (6), (b) (7)(C)

FROM: (b) (6), (b) (7)(C), Special Agent in Charge, (b) (6), (b) (7)(C)

SUBJECT: Recommendation to Close I20130013-HQO

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The OIG initiated its investigation based a referral from [redacted] who received an anonymous complaint that (b)(6), (b)(7)(C)) [redacted]. [redacted]

Background

***Program for Security of FOMC Information** as amended January 28, 2014*

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> Two-way communication with the public is a crucial element in the FOMC's monetary policy process. Committee participants have regular contacts with members of the public as part of the process of gathering the information the Committee needs to understand current economic and financial conditions. In addition, the FOMC's public accountability is strengthened by open discussion of Committee participants' views about the economic outlook as well as their judgments about the appropriate course of monetary policy.
>
> Therefore, to reinforce the public's confidence in the transparency and integrity of the monetary policy process, the FOMC has established the following principles to govern Committee participants' contacts with members of the public. The FOMC itself maintains responsibility for ensuring that all Committee participants—that is, the members of the Federal Reserve Board and the presidents of the Federal Reserve Banks—abide by these principles

The Policy outlines the following prohibited external communications.

1. Disclosure in any setting of confidential FOMC information.

2. Disclosure or characterization in any setting of the views that others expressed at an FOMC meeting.

3. A prediction about Committee action in advance of the Committee announcement of its decision.

4. A private meeting with selected clients of a regulated entity or financial

firm to discuss monetary policy.

In summary, the information provided to the OIG alleged that the Wall Street Journal article and the report by Medley Global Advisors contained information which appears to have been released in violation of one or more of the external communication prohibitions.

Investigation

[redacted]

[redacted]

[redacted]

[redacted]

Analysis of Wall Street Journal Article by Jon Hilsenrath

On September 28, 2012 an article was published at http://online.wsj.com by Jon Hilsenrath (Hilsenrath), Chief Economics Correspondent entitled How Bernanke Pulled the Fed His Way. In his article, Hilsenrath discusses details of activity by former Federal Reserve Chairman Ben Bernanke and FOMC participants leading up to the September 12, 2012, FOMC meeting.

The OIG review of the article identified sections that appear to show that Hilsenrath had direct inside knowledge of activity leading up to and during the September FOMC meeting. In his article, Hilsenrath makes the following statement related to a policy debate leading up to the September FOMC meeting:

> Negotiations stepped up in the week before the meeting. Fed staff circulated language for policy options. Officials debated how different approaches would be described in the policy statement, which would be released after the meeting.

The OIG investigation determined through e-mail and interviews that this information related to the policy discussions was not in the public domain at the time the article was published.

In another statement from Hilsenrath's article he states:

> The meeting yielded what Mr. Bernanke considered an important step: the extension of Operation Twist, a Fed program to buy $45 billion of long term Treasury securities each month, paid with the sales of short-term securities. The program-intended to put downward pressure on long-term rates was supposed to expire on June 30. The Fed agreed to keep it going through December, giving Mr. Bernanke time to make sense of the slowing job market and consider further action.

The OIG interview determined that the FOMC minutes, released on October 4, 2012 contained information related to the purchase of $45 billion per month in long term treasury securities. This information was not part of the former Chairman's statement released on September 13, 2012 and was not in the public domain prior to the publishing of the minutes. The FOMC minutes stated the following related to the purchase of $45 billion in Treasury securities and downward pressure on long term interest rates:

> In their discussion of monetary policy for the period ahead, members generally expressed concerns about the slow pace of improvement in labor market conditions and all members but one agreed that the outlook for economic activity and inflation called for additional monetary accommodation. Members agreed that such accommodation should be provided through both a strengthening of the forward guidance regarding the federal funds rate and purchases of additional agency MBS at a pace of $40 billion per month. Along with the ongoing purchases of $45 billion per month of longer-term Treasury securities under the maturity extension program announced in June [the OIG review of the June 2012 FOMC minutes determined that the rate of purchase for long-term Treasury securities was quoted as $44

> billion], these purchases will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year, and should put downward pressure on longer-term interest rates, support mortgage markets, and help make broader financial conditions more accommodative.

Hilsenrath also outlines details related to a policy debate amongst FOMC participants. Hilsenrath's article states:

> Fed staff circulated language for policy options. Officials debated how different approaches would be described in the policy statement, which would be released after the meeting

The statements in Hilsenrath's article reflects information in the FOMC minutes and activity associated with policy discussions and decisions that had not yet been released to the public at the time the article was published. The publication of this information in the Wall Street Journal represents communication of FOMC information to Hilsenrath that is in violation of the Program for the Security of FOMC Information and the FOMC Policies on External Communications.

[redacted]

Analysis of Medley Global Advisor's Newsletter

On October 3, 2012, Medley Global Advisors (MGA) published in its newsletter a Special Report by Regina Schleiger, Senior Managing Director, Global Macro, titled Fed: December Bound. Throughout the newsletter, Schleiger refers to what will be contained in the FOMC minutes released on October 4, 2012. In a section of Schleiger's newsletter states that:

> The minutes, due at 2 p.m. EDT tomorrow,[October 4, 2012] will also highlight the intense debate between Federal Open Market Committee participants over the efficacy of using the balance sheet to ease conditions further and reference again, other potential policy tools, including changes to the 2015 predictive guidance.

The FOMC minutes for September 2012, under the section "Participants' Views on Current Conditions and the Economic Outlook" outlines committee member's views and their discussion related to long-term asset purchases. The minutes also reflect the differing views of committee members. The minute's state:

> Participants again exchanged views on the likely benefits and costs of a new large-scale asset purchase program. Many participants anticipated that such a program would provide support to the economic recovery by putting downward pressure on longer-term interest rates and promoting more accommodative financial conditions.

> A number of participants also indicated that it could lift consumer and business confidence by emphasizing the Committee's commitment to continued progress toward its dual mandate. In addition, it was noted that additional purchases could reinforce the Committee's forward guidance regarding the federal funds rate. Participants discussed the effectiveness of purchases of Treasury securities relative to purchases of agency MBS in easing financial conditions. Some participants suggested that, all else being equal, MBS purchases could be preferable because they would more directly support the housing sector, which remains weak but has shown some signs of improvement of late. One participant, however, objected that purchases of MBS, when compared to purchases of longer-term Treasury securities, would likely result in higher interest rates for many borrowers in other sectors. A number of participants highlighted the uncertainty about the overall effects of additional purchases on financial markets and the real economy. Some participants thought past purchases were useful because they were conducted during periods of market stress or heightened deflation risk and were less confident of the efficacy of additional purchases under present circumstances. A few expressed skepticism that additional policy accommodation could help spur an economy that they saw as held back by uncertainties and a range of structural issues. In discussing the costs and risks that such a program might entail, several participants reiterated their concern that additional purchases might complicate the Committee's efforts to withdraw monetary policy accommodation when it eventually became appropriate to do so, raising the risk of undesirably high inflation in the future and potentially unmooring inflation expectations. One participant noted that an extended period of accommodation resulting from additional asset purchases could lead to excessive risk taking on the part of some investors and so undermine financial stability over time

In reference to Schleiger's statement on the 2015 predictive guidance, the minute's state:

> While members generally viewed the potential risks associated with these purchases as manageable, the Committee agreed that in determining the size, pace, and composition of its asset purchases, it would, as always, take appropriate account of the likely efficacy and costs of such purchases. With regard to the forward guidance, the Committee agreed on an extension through mid-2015, in conjunction with language in the statement indicating that it expects that a highly accommodative stance of policy will remain appropriate for a considerable time after the economic recovery strengthens.

The newsletter further states:

> The minutes of September's meeting will show, however, that the groundwork for further action in coming months has been laid and that labor market improvement is unlikely to be substantial enough to stave off new Treasury purchases into 2013.

The FOMC minutes for September 2012, under the section "Participants' Views on Current Conditions and the Economic Outlook" outline a decision by committee member's to continue the purchase of mortgage backed securities as well as to undertake the purchase of treasury securities under the maturity extension program.

> Participants discussed the effectiveness of purchases of Treasury securities relative to purchases of agency MBS [Mortgage Backed Securities] in easing financial conditions. Some participants suggested that, all else being equal, MBS purchases could be preferable because they would more directly support the housing sector, which remains weak but has shown some signs of improvement of late. One participant, however objected that purchases of MBS, when compared to purchases of longer-term Treasury securities, would likely result in higher internet rates for many borrowers in other sectors.

The newsletter continued by stating:

> The monthly MBS purchases of around $40 billion launched in September will continue alongside this new program. Tomorrow's minutes will reference a staff paper that concludes the market has capacity to absorb purchases this large for a period of time.

The OIG review of the minutes determined that the minutes do not specifically address a "staff paper" but do speak to a "staff presentation that outlines the purchase of MBS. The OIG further confirmed through interviews and e-mail reviews that [redacted]. The minute's state under the heading; "<u>Potential Effects of a Large-Scale Asset Purchase Program:</u>"

> The staff presented an analysis of various aspects of possible large-scale asset purchase programs, including a comparison of flow-based purchase programs to programs of fixed size. The presentation reviewed the modeling approach used by the staff in estimating the financial and macroeconomic effects of such purchases. While significant uncertainty surrounds such estimates, the presentation indicated that asset purchases could be effective in fostering more rapid progress toward the Committee's objectives. The staff noted that, for a flow-based program, the public's understanding of the conditions under which the Committee would end purchases would shape expectations of the magnitude of the Federal Reserve's holdings of longer-term securities, and thus also influence the financial and economic effects of such a program. The staff also discussed the potential implications of additional asset purchases for the evolution of the Federal Reserve's balance sheet and income. The presentation noted that significant additional asset purchases should not adversely affect the ability of the Committee to tighten the stance of policy when doing so becomes appropriate. In their discussion of the staff presentation, a few participants noted the uncertainty surrounding estimates of the effects of large-scale asset purchases or the need for additional work regarding the implications of such purchases for the normalization of policy.

Schleiger's reference to [redacted] which is not specifically mentioned in the minutes and was an internal FOMC presentation suggests some direct knowledge of specific activity conducted during the FOMC meeting.

Schleiger's comments in her newsletter appear to be inferences based on information stated in the minutes and discussions during the FOMC meeting. Schleiger also appears to have some direct knowledge of internal FOMC procedures related to the development of the "Teal Book" when she states:

> In the week leading up to the meetings, the options are circulated and can change—sometimes markedly—by the time the participants gather around the table. The "Teal Book," which contains the staff forecasts and the policy options, is circulated in two parts. The staff forecasts circulate first and what used to be known as the "Blue Book," which contains the policy options, follows.

The OIG analysis determined that the newsletter contained specific information related to discussions of FOMC procedures and meeting activity prior to the release of the FOMC minutes to the public. The information contained in the newsletter that relates to policy discussions, and presentations appears to be in violation of the Policy for the Security of FOMC Information and the FOMC Policy on External Communications of Committee Participants. Schleiger was not interviewed by the OIG for this investigation.

Interview with (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C).

On March 25, 2013, the OIG met with (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) [redacted]

(b)(6), (b)(7)(C)

(b)(6), (b)(7)(C)

Between August 2013 and February 2014, the OIG interviewed five individuals responsible for preparation of the September 12, 2012 FOMC minutes. Of those interviewed who participated in the preparation of the FOMC minutes, none reported knowing or having a personal relationship with Hilsenrath or Schleiger

Analysis of Telephone Toll Records

The OIG obtained access to archived toll records from Board IT, AV/Voice section. The OIG searched the toll records for telephone numbers (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) identified through e-mail reviews as belonging to (b) (6), (b) (7)(C). The OIG also searched toll records for telephone numbers (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) identified through e-mail reviews as numbers associated with Medley Global Advisors. The OIG searched telephone records for the period August 1, 2012 – October 31, 2012, which encompasses the month prior to the September FOMC meeting and one month after the conclusion of the meeting. The results of the telephone search revealed that between August 23, 2012 and September 24, 2012, telephone number (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) which is a number identified as belonging to (b) (6), (b) (7)(C) contacted the Board eight times. The toll records associated with (b) (6), (b) (7)(C) telephone number were contacts with Board telephone extension (b) (6), (b) (7)(C), which is the extension of (b) (6), (b) (7)(C), (b) (6), (b) (7)(C), (b) (6), (b) (7)(C)

Analysis of E-mails

From December 5, 2013 through April 7, 2014 the OIG reviewed e-mails as part of this investigation. The OIG requested all e-mails from the Board IT, Messaging Service that contained the addresses @wsj.com and @medleyadvisors.com in an attempt to identify individuals who may have had direct contact with Hilsenrath or Schleiger. The e-mail files were searched to identify names of Board personnel who had direct contact with Hilsenrath and Schleiger. The e-mails were searched for the period August 1, 2012 through October 31, 2012. The initial search resulted in a request to Board IT for all available e-mails related to Board staff identified as having contact with Hilsenrath and Schleiger. The OIG reviewed in excess of one hundred thousand e-mails and identified three persons as having direct contact with either Hilsenrath or Schleiger. As a result, the OIG interviewed (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C).

Interview of (b) (6), (b) (7)(C)

On March 28, 2014, the OIG interviewed (b) (6), (b) (7)(C)

(b)(6), (b)(7)(C)

(b)(6), (b)(7)(C)

[redacted]

Interview of (b) (6), (b) (7)(C)

On April 7, 2014, the OIG interviewed (b) (6), (b) (7)(C)

(b)(6), (b)(7)(C)

(b)(6), (b)(7)(C) [redacted]

<u>Interview of</u> (b) (6), (b) (7)(C).

On April 7, 2014, the OIG interviewed (b) (6), (b) (7)(C) [redacted]

(b)(6), (b)(7)(C) [redacted]

(b)(6), (b)(7)(C)

(b)(6), (b)(7)(C)

(b)(6), (b)(7)(C)

Status of the Investigation

[redacted]

[redacted]

Based on the information obtained during the investigation, the OIG is unable to determine the source of the leak of confidential FOMC information that appeared in the Wall Street Journal on September 28, 2012 and the report by Medley Global Advisors on October 3, 2012.
The OIG investigation determined the following:

- Based on interviews with Board staff and e-mail reviews, the article by Jon Hilsenrath and the newsletter by Regina Schleiger contain confidential FOMC information prior to its release to the public.

- The appearance of confidential FOMC information in the publications is a violation of the Program for the Security of FOMC Information and the FOMC Policy on External Communications of Committee Members.

- (b) (6), (b) (7)(C)

During the investigation, the OIG did not have access to Federal Reserve System staff members who had access to confidential Class I FOMC information. [redacted] (b) (6), (b) (7)(C) questioned the IG's authority to investigate this matter and any information as it relates to the Reserve banks. Based on the inability to pursue this matter as it relates to reserve bank staff, the OIG's scope is limited. Based on extensive telephone and e-mail reviews the OIG has not identified any other logical investigative leads. It is suggested that this matter be closed.

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMORANDUM OF INTERVIEW

On April 24, 2014 (b) (6), (b) (7)(C) [redacted] was interviewed at the Board of Governors of the Federal Reserve System, Eccles Building, 20th and Constitution, Washington DC 20551 by Special Agent in Charge (b) (6), (b) (7)(C) [redacted] and Senior Special Agent [redacted], Office of Inspector General for the Board of Governors of the Federal Reserve System. After being advised of the identity of the interviewing agent(s) and the purpose of the interview, [redacted] was advised of [redacted] rights under the *Warnings and Assurance to Employee Requested to Provide Information on a Voluntary Basis (Garrity).* After reviewing and signing the Garrity form, [redacted] provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Date of Activity:		Location:
Conducted by:		Case Number:
Transcribed By:	Date Transcribed:	Reviewed By:

(b)(6), (b)(7)(C)

[redacted]

(b)(6), (b)(7)(C)

[redacted]

(b)(6), (b)(7)(C)

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMORANDUM OF INTERVIEW

On April 7, 2014 (b) (6), (b) (7)(C) was interviewed at the (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) Washington, DC 20220 by Special Agents in Charge (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C), Office of Inspector General for the Board of Governors of the Federal Reserve System. After being advised of the identity of the interviewing agent(s) and the purpose of the interview, (b) (6), (b) (7)(C) was advised of (b) (6), (b) (7)(C) rights under the *Warnings and Assurance to Employee Requested to Provide Information on a Voluntary Basis (Garrity).* After reviewing and signing the Garrity form, (b) (6), (b) (7)(C) provided the following information:

(b)(6), (b)(7)(C)

Date of Activity:		Location:
Conducted by:		Case Number:
Transcribed By:	Date Transcribed:	Reviewed By:

(b)(6), (b)(7)(C)

(b)(6), (b)(7)(C)

[redacted]

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMORANDUM OF INTERVIEW

On March 28, 2014, (b) (6), (b) (7)(C) was interviewed by Special Agent in Charge (b) (6), (b) (7)(C) and Special Agent in Charge (b) (6), (b) (7)(C), Office of Inspector General for the Board of Governors of the Federal Reserve System at 1825 I Street, (b) (6), (b) (7)(C) Washington, DC . After being advised of the identity of the interviewing agent(s) and the purpose of the interview, (b) (6), (b) (7)(C) was advised of (b)(6), (b)(7)(C) rights under the *Warnings and Assurance to Employee Requested to Provide Information on a Voluntary Basis (Garrity).* After reviewing and signing the Garrity form, (b) (6), (b) (7)(C) provided the following information:

(b)(6), (b)(7)(C)

Date of Activity:		Location:
Conducted by:		Case Number:
Transcribed By:	Date Transcribed:	Reviewed By:

(b)(6), (b)(7)(C)

(b)(6), (b)(7)(C)

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMORANDUM OF INTERVIEW

On February 25, 2014, (b) (6), (b) (7)(C) [redacted] was interviewed by Special Agent in Charge (b) (6), (b) (7)(C) [redacted] and Senior Special Agent (b) (6), (b) (7)(C) [redacted], Office of Inspector General for the Board of Governors of the Federal Reserve System at 1825 I Street, (b) (6), (b) (7)(C) [redacted], Washington, DC . After being advised of the identity of the interviewing agent(s) and the purpose of the interview, (b) (6), (b) (7)(C) [redacted] was advised of (b)(6), (b)(7)(C) [redacted] rights under the *Warnings and Assurance to Employee Requested to Provide Information on a Voluntary Basis (Garrity).* After reviewing and signing the Garrity form, (b) (6), (b) (7)(C) [redacted] provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Date of Activity:		Location:
Conducted by:		Case Number:
Transcribed By:	Date Transcribed:	Reviewed By:

(b)(6), (b)(7)(C)

[redacted]

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMORANDUM OF INTERVIEW

On February 27, 2014, (b) (6), (b) (7)(C) was interviewed by Special Agent in Charge (b) (6), (b) (7)(C) and Senior Special Agent [redacted], Office of Inspector General for the Board of Governors of the Federal Reserve System at 1825 I Street, [redacted], Washington, DC . After being advised of the identity of the interviewing agent(s) and the purpose of the interview, [redacted] was advised of [redacted] rights under the *Warnings and Assurance to Employee Requested to Provide Information on a Voluntary Basis (Garrity).* After reviewing and signing the Garrity form, [redacted] provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Date of Activity:		Location:
Conducted by:		Case Number:
Transcribed By:	Date Transcribed:	Reviewed By:

(b)(6), (b)(7)(C)

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMORANDUM OF INTERVIEW

On December 5, 2013, (b) (6), (b) (7)(C) [redacted] was interviewed by Special Agent's in Charge (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) of the Office of Inspector General for the Board of Governors of the Federal Reserve System (Board) and Consumer Financial Protection Bureau. The interview was conducted at OIG Headquarters, Room 2737. After being advised of the identity of the interviewing agents and the purpose of the interview, [redacted] provided the following information.

(b)(6), (b)(7)(C)

Date of Activity: December 5, 2013		Location: OIG, MS-K 300, Room 2737
Conducted by: Special Agents in Charge (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C)		Case Number: I2013 0013
Transcribed By: (b) (6), (b) (7)(C)	Date Transcribed: December 9, 2013	Reviewed By:

(b)(6), (b)(7)(C)

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMORANDUM OF INTERVIEW

On August 23, 2013, [redacted] (b) (6), (b) (7)(C) was interviewed by Special Agent in Charge [redacted] (b) (6), (b) (7)(C) [redacted] (b) (6), (b) (7)(C) at the Office of Inspector General for the Board of Governors of the Federal Reserve System. After being advised of the identity of the interviewing agent(s) and the purpose of the interview, [redacted] (b) (6), (b) (7)(C) provided the following information:

[redacted] (b)(6), (b)(7)(C)

Date of Activity: August 23, 2013		Location: OIG
Conducted by: [redacted] (b) (6), (b) (7)(C)		Case Number: I2013 0013-HQO
Transcribed By: [redacted] (b) (6), (b) (7)(C)	Date Transcribed: August 26, 2013	Reviewed By: [redacted] (b) (6), (b) (7)(C)

(b)(6), (b)(7)(C)

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

MEMORANDUM OF INTERVIEW

On March 25, 2013, Special Agents in Charge, (b) (6), (b) (7)(C) [redacted] and (b) (6), (b) (7)(C) [redacted] met with (b) (6), (b) (7)(C) [redacted] and (b) (6), (b) (7)(C) [redacted], (b) (6), (b) (7)(C) [redacted]. The purpose of the meeting was to discuss (b) (6), (b) (7)(C) [redacted] publication of information contained in the Federal Open Market Committee minutes prior to their release to the public.

(b)(6), (b)(7)(C) [redacted]

Date of Activity: March 25, 2013		Location: Eccles Bldg – Office of General Counsel
Conducted by: (b) (6), (b) (7)(C) [redacted]		Case Number: I2013 0013-HQO
Transcribed By: (b) (6), (b) (7)(C) [redacted]	Date Transcribed: 3-28-2013	Reviewed By: (b) (6), (b) (7)(C) [redacted]

(b)(6), (b)(7)(C) (b) (6), (b) (7)(C)

refused to provide a copy of the final report because (b) said it contained FOMC information that the agents were not entitled to.

(b)(6), (b)(7)(C)

FEDERAL BUREAU OF INVESTIGATION

Date of entry 10/20/2015

On Wednesday, May 5, 2015, [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation, Federal Reserve Board (FRB) Office of Inspector General (OIG) Special Agents [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] Also present was [redacted], (b) (6), (b) (7)(C) [redacted] (b) (6), (b) (7)(C) [redacted] After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Investigation on 05/05/2015 at Washngton, District Of Columbia, United States (In Person)

File # 318D-NY-6151941 Date drafted 05/13/2015

by [redacted]

FD-302a (Rev. 05-08-10)

318D-NY-6151941

Continuation of FD-302 of [redacted] , On 05/05/2015 , Page 2 of 3

(b)(6), (b)(7)(C)

[redacted]

FD-302 (Rev. 5-8-10)

OFFICIAL RECORD

FEDERAL BUREAU OF INVESTIGATION

Date of entry 10/28/2015

On Wednesday, May 5, 2015, [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation, Federal Reserve Board (FRB) Office of Inspector General (OIG) Special Agents [redacted] FRB OIG Counsel [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

(b)(6), (b)(7)(C)

[redacted]

b6
b7C

Investigation on 05/05/2015 at Washington, District Of Columbia, United States (In Person)

File # 318D-NY-6151941 Date drafted 05/15/2015

by [redacted]

This document contains neither recommendations nor conclusions of the FBI. It is the property of the FBI and is loaned to your agency; it and its contents are not to be distributed outside your agency.

FD-302a (Rev. 05-08-10)

318D-NY-6151941

Continuation of FD-302 of [redacted], On 05/05/2015, Page 2 of 3

(b)(6), (b)(7)(C)

[redacted]

AUTHORIZED FOR RELEASE

FEDERAL BUREAU OF INVESTIGATION

Date of entry 10/30/2015

On Thursday, May 14, 2015, [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation, Federal Reserve Board (FRB) Office of Inspector General (OIG) Special Agents [redacted] FRB OIG Counsel [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Investigation on 05/14/2015 at New York, New York, United States (In Person)

File # 318D-NY-6151941 Date drafted 05/15/2015

by [redacted]

FD-302a (Rev. 05-08-10)

318D-NY-6151941

Continuation of FD-302 of [redacted] , On 05/14/2015 , Page 2 of 3

(b)(6), (b)(7)(C)

[redacted]

AUTHORIZED FOR RELEASE

(b)(6), (b)(7)(C)

[redacted]

FD-302 (Rev. 5-8-10)

FEDERAL BUREAU OF INVESTIGATION

Date of entry 10/28/2015

On Wednesday, May 6, 2015, [redacted] date of birth [redacted] social security account number [redacted] address [redacted] home telephone number [redacted] cellular work and personal telephone number [redacted] personal e-mail address [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation, Federal Reserve Board (FRB) Office of Inspector General (OIG) Special Agents [redacted] FRB OIG Counsel [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Investigation on 05/06/2015 at Washington, District Of Columbia, United States (In Person)

File # 318D-NY-6151941 Date drafted 05/15/2015

by [redacted]

(b)(6), (b)(7)(C)

[redacted]

FD-302a (Rev. 05-08-10)

318D-NY-6151941

Continuation of FD-302 of [redacted] , On 05/06/2015 , Page 3 of 5

(b)(6), (b)(7)(C)

[redacted]

(b)(6), (b)(7)(C)

[redacted]

FD-302a (Rev. 05-08-10)

318D-NY-6151941

Continuation of FD-302 of (b)(6), (b)(7)(C) [redacted], On 05/06/2015, Page 5 of 5

(b)(6), (b)(7)(C)

[redacted]

FD-302 (Rev. 5-8-10)

OFFICIAL RECORD

FEDERAL BUREAU OF INVESTIGATION

Date of entry 11/04/2015

On Thursday, May 6, 2015, [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation, Federal Reserve Board (FRB) Office of Inspector General (OIG) Special Agents [redacted] FRB OIG Counsel [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Investigation on 05/06/2015 at New York, New York, United States (In Person)

File # 318D-NY-6151941 Date drafted 05/15/2015

by [redacted]

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FD-302a (Rev. 05-08-10)

318D-NY-6151941

Continuation of FD-302 of (b)(6), (b)(7)(C) [redacted], On 05/06/2015, Page 2 of 3

(b)(6), (b)(7)(C)

[redacted]

FD-302a (Rev. 05-08-10)

318D-NY-6151941

Continuation of FD-302 of (b)(6), (b)(7)(C) [redacted] , On 05/06/2015 , Page 3 of 3

(b)(6), (b)(7)(C)

[redacted]

FD-302 (Rev. 5-8-10)

OFFICIAL RECORD

FEDERAL BUREAU OF INVESTIGATION

Date of entry 10/30/2015

On Thursday, May 6, 2015, [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation. FRB Office of Inspector General (OIG) Special Agents [redacted] FRB OIG Counsel [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Investigation on 05/06/2015 at New York, New York, United States (In Person)

File # 318D-NY-6151941 Date drafted 05/15/2015

by [redacted]

FD-302a (Rev. 05-08-10)

318D-NY-6151941

Continuation of FD-302 of [redacted], On 05/06/2015, Page 2 of 4

(b)(6), (b)(7)(C)

[redacted]

FD-302a (Rev. 05-08-10)

318D-NY-6151941

Continuation of FD-302 of (b)(6), (b)(7)(C) [redacted], On 05/06/2015, Page 3 of 4

(b)(6), (b)(7)(C)

[redacted]

(b)(6), (b)(7)(C)

[redacted]

FD-302 (Rev. 5-8-10)

OFFICIAL RECORD

FEDERAL BUREAU OF INVESTIGATION

Date of entry 10/28/2015

On Wednesday, May 5, 2015, [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation, Federal Reserve Board (FRB) Office of Inspector General (OIG) Special Agent [redacted] FRB OIG Counsel [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Investigation on	05/05/2015	at	Washington, District Of Columbia, United States (In Person)
File #	318D-NY-6151941	Date drafted	05/15/2015
by	[redacted]		

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(b)(6), (b)(7)(C)

[redacted]

FEDERAL BUREAU OF INVESTIGATION

Date of entry 10/28/2015

On Wednesday, May 5, 2015, [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation, Federal Reserve Board (FRB) Office of Inspector General (OIG) Special Agents [redacted] FRB OIG Counsel [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Investigation on 05/05/2015 at Washington, District Of Columbia, United States (In Person)

File # 318D-NY-6151941 Date drafted 05/15/2015

by [redacted]

FD-302a (Rev. 05-08-10)

318D-NY-6151941

Continuation of FD-302 of (b)(6), (b)(7)(C) [redacted], On 05/05/2015, Page 2 of 3

(b)(6), (b)(7)(C)

[redacted]

FD-302a (Rev. 05-08-10)

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Continuation of FD-302 of [redacted], On 05/05/2015, Page 3 of 3

(b)(6), (b)(7)(C)

[redacted]

FD-302 (Rev. 5-8-10)

FEDERAL BUREAU OF INVESTIGATION

Date of entry 11/04/2015

On Wednesday, May 5, 2015, [redacted] FEDERAL RESERVE BOARD (FRB), [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation, FRB Office of Inspector General (OIG) Special Agent [redacted] FRB OIG Counsel [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Investigation on	05/05/2015 at New York, New York, United States (In Person)
File #	318D-NY-6151941 — Date drafted 05/15/2015
by	[redacted]

AUTHORIZED FOR RELEASE

FD-302a (Rev. 05-08-10)

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Continuation of FD-302 of [redacted] , On 05/05/2015 , Page 2 of 3

(b)(6), (b)(7)(C)

[redacted]

FD-302a (Rev. 05-08-10)

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Continuation of FD-302 of (b)(6), (b)(7)(C) [redacted], On 05/05/2015, Page 3 of 3

(b)(6), (b)(7)(C)

[redacted]

FD-302 (Rev. 5-8-10)

OFFICIAL RECORD

FEDERAL BUREAU OF INVESTIGATION

Date of entry 10/28/2015

On Wednesday, May 5, 2015, [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation, Federal Reserve Board (FRB) Office of Inspector General (OIG) Special Agent [redacted] FRB OIG Counsel [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Investigation on 05/05/2015 at Washington, District Of Columbia, United States (In Person)

File # 318D-NY-6151941 Date drafted 05/15/2015

by [redacted]

(b)(6), (b)(7)(C)

[redacted]

FD-302 (Rev. 5-8-10)

OFFICIAL RECORD

FEDERAL BUREAU OF INVESTIGATION

Date of entry 11/06/2015

On Thursday, May 14, 2015, [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation, Federal Reserve Board (FRB) Office of Inspector General (OIG) Special Agents [redacted] FRB OIG Counsel [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] was accompanied by [redacted]. After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

(b)(6), (b)(7)(C)

[redacted]

Investigation on	05/14/2015 at New York, New York, United States (In Person)
File #	318D-NY-6151941 — Date drafted 05/15/2015
by	[redacted]

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(b)(6), (b)(7)(C)

[redacted]

FD-302a (Rev. 05-08-10)

318D-NY-6151941

(b)(6), (b)(7)(C)

Continuation of FD-302 of [redacted], On 05/14/2015, Page 3 of 4

(b)(6), (b)(7)(C)

[redacted]

FD-302a (Rev. 05-08-10)

318D-NY-6151941

Continuation of FD-302 of [redacted], On 05/14/2015, Page 4 of 4

(b)(6), (b)(7)(C)

[redacted]

FD-302 (Rev. 5-8-10)

OFFICIAL RECORD

FEDERAL BUREAU OF INVESTIGATION

Date of entry 11/04/2015

On Thursday, May 6, 2015, [redacted] was interviewed pursuant to the Federal Reserve Board Inspector General's Office Garrity Agreement by Special Agent [redacted] of the Federal Bureau of Investigation, Federal Reserve Board (FRB) Office of Inspector General (OIG) Special Agents [redacted] FRB OIG Counsel [redacted] Southern District of New York (SDNY) Assistant United States Attorney (AUSA) [redacted] and SDNY AUSA [redacted] After being advised of the identities of the interviewing officials and after reviewing the Garrity Warning from the FRB OIG, [redacted] executed the Garrity document, whereupon [redacted] voluntarily provided the following information:

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[redacted]

Investigation on 05/06/2015 at New York, New York, United States (In Person)

File # 318D-NY-6151941 Date drafted 05/15/2015

by [redacted]

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318D-NY-6151941

Continuation of FD-302 of (b)(6), (b)(7)(C) [redacted], On 05/06/2015, Page 2 of 2

(b)(6), (b)(7)(C)

[redacted]

FOMC Inquiry -FRSONLY-
(b) (6), (b) (7)(C) [redacted] to: (b) (6), (b) (7)(C) [redacted]

11/16/2012 04:25 PM

Bcc [redacted]

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Class I FOMC - Restricted-Controlled (FR)

Dear Colleagues:

As you may know, the Chairman has asked that (b) (6), (b) (7)(C) [redacted] (b) (6), (b) (7)(C) [redacted], investigate whether there has been a violation of the Program for Security of FOMC Information or the FOMC Policies on External Communications in connection with a September 28, 2012 Wall Street Journal article and an October 3, 2012 report published by Medley Global Advisors. We write now to request your full cooperation in this inquiry and to ask that you provide certain information to help facilitate the inquiry.

To this end, please provide answers to the questions contained in the attached questionnaire and email a scanned version of the signed responses to (b) (6), (b) (7)(C) of the Board's Legal Division at (b) (6), (b) (7)(C) [redacted] not later than Friday, November 30. Please also gather the documents requested in the questionnaire and return the materials to (b) (6), (b) (7)(C) [redacted] (b) (6), (b) (7)(C) by Friday, November 30 by email, Federal Express or United Parcel Service (please do not return by U.S. Mail as security screening of the mail may result in substantial delay).

Please maintain and do not destroy or delete any information that may be in any way relevant to the inquiry. Please also treat all information regarding the inquiry as confidential FOMC information.

We will contact you shortly if it is appropriate to arrange an interview to collect your personal recollections and other information related to these matters. Please recognize that we represent the Committee in this process, and not any individual, and must conduct the inquiry accordingly.

Thank you in advance for your cooperation. Please do not hesitate to contact either one of us should you have any questions.

(b) (6), (b) (7)(C) [redacted]

11-16-12 FOMC Letter.pdf FOMC Questionnaire.docx

FRS Users please note - This email is marked as "FRS Only" and therefore intended only for Board and Federal Reserve System recipients.

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551-0001

November 16, 2012

Dear Colleagues:

As you may know, the Chairman has asked that (b)(6), (b)(7)(C) [redacted] (b)(6), (b)(7)(C) [redacted], investigate whether there has been a violation of the Program for Security of FOMC Information or the FOMC Policies on External Communications in connection with a September 28, 2012 Wall Street Journal article and an October 3, 2012 report published by Medley Global Advisors. We write now to request your full cooperation in this inquiry and to ask that you provide certain information to help facilitate the inquiry.

To this end, please provide answers to the questions contained in the attached questionnaire and email a scanned version of the signed responses to (b)(6), (b)(7)(C) [redacted] of the Board's Legal Division at (b)(6), (b)(7)(C) [redacted] not later than Friday, November 30. Please also gather the documents requested in the questionnaire and return the materials to (b)(6), (b)(7)(C) [redacted] by Friday, November 30 by email, Federal Express or United Parcel Service (please do not return by U.S. Mail as security screening of the mail may result in substantial delay).

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Thank you in advance for your cooperation. Please do not hesitate to contact either one of us should you have any questions.

Sincerely,

(b)(6), (b)(7)(C) [redacted]

(b)(6), (b)(7)(C) [redacted]

Enclosure

Program for Security of FOMC Information Questionnaire

Please provide answers to the following questions and return to (b) (6), (b) (7)(C) at (b) (6), (b) (7)(C) not later than Friday, November 30.

1. Did you communicate with Jon Hilsenrath of the Wall Street Journal in person, by telephone, by email, or otherwise between June 1, 2012 and October 3, 2012? If "yes," please list the dates on which you communicated with Mr. Hilsenrath. Please include the method (e.g., email, telephone, in person) for each communication listed.

2. Did you communicate with Regina Schleiger of Medley Global Advisors in person, by telephone, by email, or otherwise between June 1, 2012 and October 3, 2012? If "yes," please list the dates on which you communicated with Ms. Schleiger. Please include the method (e.g., email, telephone, in person) for each communication listed.

3. Excluding those communications identified in response to the questions above, have you had any communications with representatives of the Wall Street Journal or Medley Global Advisors[1] between June 1, 2012 and October 3, 2012? If "yes," please list the dates of all such communications, the name and title of each individual with whom you communicated, and the method of each communication.

4. Do you have any other information that may be relevant to the investigation of unauthorized disclosure of FOMC information? If "yes," please summarize the information.

If you have any of the documents identified in (a) through (e) below, please identify the categories for which you have responsive documents and provide the materials to (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) by Friday, November 30 by email (at (b) (6), (b) (7)(C) or by Federal Express or United Parcel Service at Board of Governors of the Federal Reserve System, 20th and C Streets, N.W., Washington, D.C., 20551 (please do not return by U.S. Mail as security screening of the mail may result in substantial delay).

(a) Any email communications (please print) or other written communications between June 1, 2012 and October 3, 2012 involving (i) you and Jon Hilsenrath or any other employee or representative of the Wall Street Journal; and (ii) you and Regina Schleiger or any other employee or representative of Medley Global Advisors.

[1] The Medley Global Advisors staff is identified at http://www.medleyadvisors.com/team.html.

(b) Any notes or other record of any communication between June 1, 2012 and October 3, 2012 involving (i) you and Jon Hilsenrath or any other employee or representative of the Wall Street Journal; and (ii) you and Regina Schleiger or any other employee or representative of Medley Global Advisors.

(c) Any calendar entries reflecting any call, meeting, or communication between June 1, 2012 and October 3, 2012 involving (i) you and Jon Hilsenrath or any other employee or representative of the Wall Street Journal; and (ii) you and Regina Schleiger or any other employee or representative of Medley Global Advisors.

(d) Any call log that you or an assistant maintain reflecting any incoming and/or outgoing telephone calls involving you and any employee or representative of the Wall Street Journal or Medley Global Advisors between June 1, 2012 and October 3, 2012.

(e) Any other document that may be pertinent to the inquiry.

Please include and complete the following signature block at the end of your written responses:

I declare that the foregoing is true and correct.

Date: __________ Printed Name: _______________ Signature: ____________________

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

BEN S. BERNANKE
CHAIRMAN

October 4, 2012

Dear Colleagues:

I wanted to follow up on the communication I sent around last week in the wake of our concerns about the 9/28/12 WSJ piece. Many of us are deeply troubled also by a report to clients yesterday by Medley Global Advisors (attached).

It seems apparent that there have been violations of both the letter and spirit of our guidelines on public communications. I have therefore asked [redacted], to look closely into these matters and report back to me their conclusions. I expect you will all give them your very prompt and full cooperation in this exercise. After this work has been completed, I will consider possible next steps and will update all of you.

Let me reiterate that I believe the communications guidelines offer us a workable path toward maintaining collegiality on the Committee, helping the public understand our actions and perspectives, and protecting important confidentiality in certain areas. They will only be effective, though, to the extent that there is full cooperation by FOMC participants and staff to the letter and spirit therein. To that end, I have asked [redacted] to continue a conversation [redacted] started with the Reserve Bank public affairs officers last week about sensitivities in this arena. [redacted] goal will be to help equip the public affairs offices as they assist each of us to work within the external communications guidelines.

Sincerely,

Ben

Attachment

MGA
LEADING POLICY INTELLIGENCE

SPECIAL REPORT

OCTOBER 3, 2012

Fed: December Bound

SUMMARY: Though tomorrow's FOMC minutes will highlight the extent of dissension over the efficacy of additional policy easing announced at the September meeting, more is likely after the US presidential elections.

The US Federal Reserve has stepped to the sidelines ahead of the presidential elections, to work on its evolving policymaking framework following September's decision to embark on further significant easing.

The minutes of September's meeting will show, however, that the groundwork for further action in coming months has been laid and that labor market improvement is unlikely to be substantial enough to stave off new Treasury purchases into 2013.

The minutes, due at 2 p.m. EDT tomorrow, will also highlight the intense debate between Federal Open Market Committee participants over the efficacy of using the balance sheet to ease conditions further and reference again, other potential policy tools, including changes to the 2015 predictive guidance.

While the minutes will reveal greater contention over large-scale asset purchases than chairman Ben Bernanke's August Jackson Hole speech did, the tone will clearly convey that economic risks remain tilted to the downside and will lean in the direction of more action.

Assuming economic conditions have not vastly improved, the FOMC is therefore likely to vote as early as its December meeting (at which point there will be a new system-wide forecast round) to cease the Maturity Extension Program (MEP) on schedule and replace it with monthly Treasury bond purchases of around $45 billion -- similar to the current monthly average.

The committee will attach a predictive timeline outlining the duration of these purchases, that will be dependent on the economy recovering substantially. The monthly MBS purchases of around $40 billion launched in September will continue alongside this new program. Tomorrow's minutes will reference a staff paper that concludes the market has capacity to absorb purchases this large for a period of time.

The minutes will also show thedovish voting majority was ready to cease the MEP and replace it with open-ended MBS and Treasury purchases as early as last month. By year end, they are likely to get what they want.

A motley crew

While not highly unusual, within the menu of three policy options finally presented to the FOMC at the meeting were subsets of drafts of potential policy actions, denoted as "primes" in Fed-speak The first main option is usually an extremely hawkish proposal, the last is very dovish and contains elements some participants lightly jest, serve as "trailers" for policy decisions in subsequent meetings. The middle option, though not always the case, is traditionally the chairman's preferred outcome.

In this meeting, there were multiple drafts within the middle proposal including the eventual outcome of September's meeting. The language in these drafts can be tweaked at the meeting by participants determined to have some input.

In the week leading up to the meetings, the options are circulated and can change -- sometimes markedly -- by the time the participants gather around the table. The "Teal Book," which contains the staff forecasts and the policy options, is circulated in two parts. The staff forecasts circulate first and what used to be known as the "Blue Book," which contains the policy options, follows.

ECONOMY | September 28, 2012, 1:10 p.m. ET

How Bernanke Pulled the Fed His Way

By JON HILSENRATH

In late August, Federal Reserve Chairman Ben Bernanke argued on behalf of Fed programs to stimulate the lumbering U.S. economy and signaled that more might follow, making headlines in his highly anticipated speech at the Fed's annual retreat in Jackson Hole, Wyo.


Ben Bernanke's high-stakes plan to restart the lumbering U.S. economy took shape in an intense flurry of behind-the-scenes discussions between him and colleagues in the days before a crucial September meeting. Jon Hilsenrath explains on Lunch Break. Photo: Getty Images

As markets rallied at the prospect of new measures to ease credit, a quiet drama was unfolding behind the scenes. Mr. Bernanke was negotiating a high-stakes plan in a flurry of private conversations with colleagues hesitant about aggressively re-engaging the levers of America's central bank.

For weeks, Mr. Bernanke made dozens of private calls on days, nights and weekends, trying to build broad support for an unusual bond-buying program he wanted approved during the Fed's September meeting, according to people familiar with the matter.

Fed officials in late summer were at odds over how far the central bank should go. Some wanted a bold, innovative program. Others weren't so sure; a few were opposed. Mr. Bernanke set his sights on a handful of fence-sitters who could swing a strong consensus to his side.

More
Beijing, Seoul Blast Fed Push

Interviews with more than a dozen people involved in the Fed decision, both supporters and opponents, show how Mr. Bernanke won over skeptics to advance his policy—a distinction in a Washington era marked by rancor and gridlock. These people also gave a rare view of the low-key persistence of the former economics professor.

Mr. Bernanke didn't see inflation as a threat but viewed unemployment as a deeper problem than he had realized. The central bank, in his view, needed to act. The Fed chairman listened to colleagues' concerns during the calls, people familiar with the matter said, drawing out their reservations and probing for common ground. He eventually seized on a compromise that came from a little-known Fed governor.

The result of the Fed's two-day meeting that began Sept. 12 was an 11-1 vote to undertake one of the central bank's most ambitious stimulus programs. The Fed announced it would buy $40 billion a month of mortgage-backed securities and, for the first time, promised to keep buying until the U.S. job market substantially improved.

The commitment marked a change from the stop-and-start programs the Fed had launched since the financial crisis.

"This is a 'Main Street' policy," Mr. Bernanke said after the September meeting. "What we are about here is trying to get jobs going." The bond buying aims to drive down long-term interest rates and push up the values of homes, stocks and other financial assets. Officials hope their commitment will jolt households and businesses into spending, investing and hiring.

Drawing broad support for the plan was important to Mr. Bernanke in part because the policies he was formulating could outlast him. His term as Fed chairman ends in January 2014. Seeing a return to U.S. full employment as a distant goal, Mr. Bernanke needed the support of officials who might remain at the Fed after he left.

Enlarge Image

Roots of the Fed decision stretched to March, when Mr. Bernanke in a speech warned the U.S. economy wasn't growing fast enough. Since September 2011, the economy had produced about 200,000 jobs a month, driving down unemployment. But Mr. Bernanke warned that a slowdown would hobble hiring. Indeed, job gains by midyear fell to less than 100,000 a month.

At the central bank's June policy meeting, Fed Governor Daniel Tarullo, a lawyer appointed by President Barack Obama, said the economy felt like a vehicle "stuck in the mud," according to people there. The analogy stuck. A month later, Mr. Bernanke used the same phrase with Congress.

The meeting yielded what Mr. Bernanke considered an important step: the extension of Operation Twist, a Fed program to buy $45 billion of long-term Treasury securities each month, paid with the sales of short-term securities. The program—intended to put downward pressure on long-term rates—was supposed to expire on June 30. The Fed agreed to keep it going through December, giving Mr. Bernanke time to make sense of the slowing job market and consider further action.

To move forward, Mr. Bernanke needed to corral several colleagues, including regional Fed bank president Dennis Lockhart from Atlanta, who had a vote on the Federal Open Market Committee, the Fed's decision making body. Under Fed rules, four of the 12 regional Fed banks vote on the committee on a rotating basis; a fifth, the New York Fed, always votes.

Audio

Jon Hilsenrath talks about Federal Reserve Chairman Ben Bernanke's plan on The Wall Street Journal This Morning.

00:00 | 00:00

Mr. Lockhart, a former banker who spent much of his career working in emerging markets, said in an interview after the September meeting that he had spent his summer trying to "take stock of the recovery." He debated whether the U.S. had an economy with a 3% growth trend that was hit by bad luck—Europe's financial turmoil, for one. Or was it an economy growing at a 2% annual rate that couldn't sustain job growth and needed help? A string of weak economic data suggested it was the latter.

incentives that are supposed to have helped inflate the bubble – were true believers in the housing boom.

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Number of the Week: Employers' Benefits Costs

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Like others, Mr. Lockhart had reservations about the effectiveness of Fed policies. Earlier bond buying hadn't yet produced strong growth. The banking system, still damaged by the financial crisis, wasn't delivering credit the way economists expected, given historically low interest rates. Still, Mr. Lockhart thought a program targeting the U.S. housing market might help.

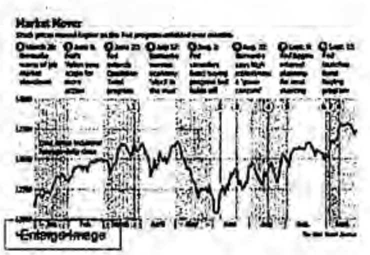
Mr. Bernanke also worked on nonvoters, including Narayana Kocherlakota, who was going through his own transformation.

Several months after becoming president of the Minneapolis Fed in 2009, Mr. Kocherlakota believed the job market had structural problems beyond the reach of monetary policy—for example, too many construction workers who couldn't easily be trained for other jobs.

Mr. Kocherlakota joined Fed skeptics, so-called hawks, who doubted the effectiveness of central bank activism. During his turn as a Fed voter last year, he voted twice against loosening credit, moves championed by Mr. Bernanke.

Though they disagreed on policy, Mr. Bernanke and Mr. Kocherlakota were kindred spirits. Mr. Kocherlakota is a scholarly Ph.D. economist who enrolled at Princeton University at age 15. Mr. Bernanke, equally wonky, was later chairman of Princeton's economics department years later.

Mr. Kocherlakota and Mr. Bernanke exchanged emails over months, debating structural unemployment—the idea that unemployment was caused by mismatches between employer needs and the skills and location of workers. In Mr. Bernanke's view, employers weren't hiring because of weak demand for their goods and services, which Fed policies might help remedy.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"I've learned a lot by talking to him," Mr. Kocherlakota said in an interview after the September meeting. Mr. Bernanke's "thinking is framed by data and models," he said. "It beats coming in there with just your gut."

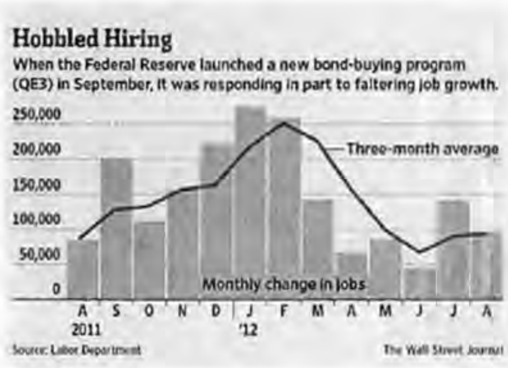
By summer, Mr. Kocherlakota said, his views about structural unemployment were shifting as he found the evidence less than persuasive. This left an opening for Mr. Bernanke.

As the Fed's August meeting approached, Mr. Bernanke and his inner circle, which included Fed Vice Chairwoman Janet Yellen and New York Fed President William Dudley, were thinking that any Fed action should be a comprehensive and novel package, rather than an incremental step, according to people familiar with their views. They agreed to take time to confirm their views of the U.S. economy and develop consensus for a plan.

The August meeting turned into a policy staging ground. One proposal on an internal list of three policy options was a new bond-buying program, according to people familiar with the list. Mr. Bernanke didn't push. But it allowed a chance for officials to debate the pros and cons of a new program—in effect, a practice run for September.

Some officials argued for more bond buying. Others worried about the Fed turning into too big a player in bond markets, disrupting trading in Treasury securities or mortgage securities. Fed staff wrote a memo ahead of the meeting detailing the market's capacity to absorb central bank purchases of Treasury bonds and mortgage-backed securities. They found that the Fed could carry on a large program for a couple of years if needed without disturbing markets. The finding helped set boundaries for what the Fed could do and for how long.

The Fed's policy committee emerged



from the August meeting with familiar fissures. Opponents of the Fed's easy-money policies said the measures weren't giving the economy much of a lift, while risking future inflation.

Jobs at WSJ

Dallas Fed president Richard Fisher said the Fed was like a doctor over-prescribing Ritalin to attention-deficient Wall Street traders. Richmond Fed president Jeffrey Lacker dissented in August for the fifth straight meeting, taking issue with a policy already in place: An assurance the Fed had given that short-term interest rates would remain near zero through late 2014. Philadelphia Fed President Charles Plosser said in an interview that he urged Mr. Bernanke to wait until year-end before deciding on any new programs.

Despite their public disagreements, Fed officials were friendly behind the scenes. Mr. Plosser, who favors tighter credit policies, and the Chicago Fed's Charles Evans, who wants easier credit, play golf together. They joined Mr. Fisher and Mr. Lockhart for a round at the Chevy Chase Country Club after the August meeting.

By late summer, the Fed had made clear it was prepared to act if the economy continued to languish. The question was how?

Many Fed activists wanted a open-ended program of bond purchases that would continue until the economy improved. Among them, some wanted to go big—at least a few hundred billion dollars worth over several months—with a promise to keep buying as needed. Moreover, some wanted to replace Operation Twist with bigger purchases of mortgage-backed securities and Treasurys.

As the September meeting neared, Mr. Bernanke needed to assure colleagues who still had reservations about moving too aggressively. In addition to Mr. Lockhart, Cleveland Fed president Sandra Pianalto had been wavering. She was among those who worried more Fed bond buying could disrupt markets.

Another fence-sitter was Washington-based Fed Governor Elizabeth Duke, a plain-spoken Virginia banker nominated to the Fed board by President George W. Bush in 2007.

Fed officials described the Fed chairman's phone calls as low-pressure conversations. Mr. Bernanke sometimes dialed up colleagues while in his office on weekends, catching them off guard when their phones identified his private number as unknown. He gave updates on the latest staff forecasts, colleagues said. He asked their thoughts and what they could comfortably support, they said.

The calls helped Mr. Bernanke gauge how far he could push his committee. It also won him trust among some of his fiercest opponents, officials said. Nearly all of Mr. Bernanke's colleagues described him as a good listener.

"Even if you disagree with him on the programs, you know your voice has been heard," said Mr. Fisher, one of his opponents. "There is no effort to bully."

Negotiations stepped up in the week before the meeting. Fed staff circulated language for policy options. Officials debated how different approaches would be described in the policy statement, which would be released after the meeting.

Officials at Fed policy meetings typically consider three options: one representing activists who want to use monetary policy aggressively; another supporting officials seeking conservative use; and a middle-ground option that typically prevails.

The premeeting documents this time listed four options, including an aggressive approach favored by activists, and no bond buying, favored by hawks. Among two middle-ground proposals was a compromise that Ms. Duke originated.

Five days before the meeting, Mr. Bernanke took time out for the Washington Nationals—his favorite baseball team was having a dream season. He arrived at the ballpark in a worn Nationals cap and wandered the infield during batting practice.

"I wanted to ask him if I should get some gold and silver but I bit my tongue," said Nationals manager Davey Johnson. Instead, they talked about how Mr. Johnson, a math major, used statistics to manage his lineup.

At the meeting the following week, the Fed adopted the compromise that Ms. Duke helped spur. The Fed would continue Operation Twist through December but add an open-ended mortgage-bond buying program.

Activists got what they most wanted: An open-ended commitment to buy mortgage bonds until the job market improved, with the strong possibility of additional Treasury purchases later. Fence-sitters got a promise to review the plan before deciding to proceed with a bigger program in 2013. Mr. Lockhart said the chance to reassess the program based on inflation and the performance of the job market helped win him over.

With an agreement on bond buying largely in place, Fed officials at the September meeting left unanswered this question: When could they leave growth of the U.S. economy on its own? Mr. Kocherlakota and Mr. Evans failed to get agreement for inflation and unemployment thresholds to determine when to raise short-term rates, according to people familiar with the talks.

"It's an ongoing discussion," Mr. Plosser said. "We will probably continue to work on this."

Write to Jon Hilsenrath at jon.hilsenrath@wsj.com

Corrections & Amplifications
In a photo caption accompanying this article, the first name of Jeffrey Lacker, the president of the Federal Reserve Bank of Richmond, is misspelled as Jeffery.

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(b) (6), (b) (7)(C)

From: (b) (6), (b) (7)(C)
Sent: Wednesday, March 11, 2015 3:32 PM
To: (b) (6), (b) (7)(C), (NY) (FBI)'
Subject: FBI Letter
Attachments: Notification of Investigation.pdf

INTERNAL FR

As discussed. Let's talk soon.

Thanks,

(b) (6), (b) (7)(C) | Senior Special Agent
Office of Inspector General
Board of Governors of the Federal Reserve System | Consumer Financial Protection Bureau
(b) (6), (b) (7)(C) | (b) (6), (b) (7)(C)

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OFFICE OF INSPECTOR GENERAL
BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
CONSUMER FINANCIAL PROTECTION BUREAU
WASHINGTON, DC 20551

March 11, 2015

Acting Special Agent in Charge (b) (6), (b) (7)(C)
FBI New York
26 Federal Plaza
New York, NY 10278

SUBJECT: Notification of Investigation

SAIC [redacted]:

In accordance with Section VII(A) of the *Attorney General Guidelines for Offices of Inspector General with Statutory Law Enforcement Authority, December 2003*, this letter is to notify you the Office of Inspector General, Board of Governors of the Federal Reserve System / Consumer Financial Protection Bureau, has opened the following criminal investigation:

Case Title / Subject Name: Release of Confidential Information (FOMC)
Case Number: I20130013 HQO
Date Re-Opened: 03/10/15
Potential Violation: 18 USC 1905 Disclosure of Confidential Information
Synopsis:

This investigation was reopened based on an anonymous letter received by Federal Reserve Board (b) (6), (b) (7)(C), who then forwarded a copy of the letter to the OIG on March 4, 2015. The anonymous letter states, "(b) (6), (b) (7)(C) of the Fed leaked confidential FOMC information to Medley Global Advisors and other firms before the September 2012 decision."

The investigation concerns the release of confidential information from a September 12 - 13, 2012 meeting of the Federal Open Market Committee (FOMC), which later appeared in a Wall Street Journal article dated September 28, 2012 and a newsletter by Medley Global Advisors on October 3, 2012. At the time, the confidential information appeared in the article and newsletter, the details of the FOMC meeting and minutes had not been released to the public. The minutes for the September 12 - 13, 2012 FOMC meeting were released to the public on October 4, 2012. Initially, the OIG launched an investigation on March 13, 2013, based on information from a confidential informant that alleged the leak of confidential FOMC information was not reported

Office of Inspector General

Board of Governors of the Federal Reserve System

to the OIG for investigation. Based on the findings of the OIG's initial investigation at that time and the lack of any other logical leads, the OIG was unable to determine the source of the leak of confidential FOMC information and closed the investigation on December 1, 2014.

As discussed on March 10, 2015 with FBI SAs (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C), this investigation was reopened based on new information.

Further information about this investigation is available from me, Senior Special Agent (b) (6), (b) (7) [redacted], 20th & C Street, NW (MS-K300), Washington, DC 20551. Should you have any further questions, please contact me at (b) (6), (b) (7)(C)

Sincerely,
(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)
Senior Special Agent
(b) (6), (b) (7)(C)

JEB HENSARLING, TX, CHAIRMAN

United States House of Representatives
Committee on Financial Services
2129 Rayburn House Office Building
Washington, DC 20515

MAXINE WATERS, CA, RANKING MEMBER

June 17, 2015

The Honorable Janet Yellen
Chair
Board of Governors of the Federal Reserve System
20th Street and Constitution Ave. NW
Washington, D.C. 20551

Mr. Mark Bialek
Inspector General
Board of Governors of the Federal Reserve System and
Bureau of Consumer Financial Protection
20th Street and Constitution Ave. NW
Washington, D.C. 20551

Dear Chair Yellen and Mr. Bialek:

This is in response to your respective letters in which you both refuse to comply with the Committee's repeated requests for records relating to the leak of confidential Federal Open Market Committee (FOMC) information in 2012.[1] The Board of Governors of the Federal Reserve System (Fed), pursuant to the request of the Fed's Office of Inspector General (OIG), has refused to comply with a duly authorized and issued Congressional subpoena.[2] The OIG has also not complied with multiple requests from the Committee for these records, most recently citing executive privilege as its basis for non-compliance.[3] As set forth more fully below, the OIG has no cognizable legal grounds for refusing to produce the requested

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[1] Letter from the Hon. Janet Yellen, Chair, Board of Governors of the Federal Reserve System, to the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv. (June 4, 2015); Letter from Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System, to the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv. (May 29, 2015).

[2] Subpoena by Authority of the House of Representatives of the Congress of the United States of America, to the Hon. Janet Yellen, Chair, Board of Governors of the Federal Reserve System (May 21, 2015).

[3] *See* Letter from the Hon. Sean Duffy, Chairman, Subcmte. on Oversight & Investigations, H. Comm. on Fin. Serv., to Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System (Feb. 5, 2015); Letters from the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv., to Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System (Mar. 13, 2015; Apr. 30, 2015); Letter from Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System, to the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv. (May 29, 2015) (citing executive privilege: "The OIG's concerns regarding the disclosure of ongoing criminal investigative information to Congress *are consistent with the law of executive privilege*, as described in the DOJ Office of Legal Counsel (OLC) opinion . . . ." (emphasis added)).

records, and the Fed's refusal to comply with the Committee's subpoena constitutes the willful obstruction of this Committee's lawful investigation.[4]

The Committee remains very concerned about the leak of confidential FOMC information and the inadequate investigations by the Fed and the OIG that followed. The leak disclosed market-moving information to a private party regarding confidential FOMC deliberations, i.e., the Fed's plan to purchase hundreds of billions of dollars' worth of securities.[5] It should be self-evident that a leak of such confidential FOMC information is unacceptable and must be promptly and vigorously investigated both by relevant law enforcement authorities and congressional committees of jurisdiction.

Unfortunately, the Fed conducted what can most charitably be described as an inadequate internal investigation, failing to make a referral even to its own inspector general. And although the OIG began its own investigation, it concluded it a short time later without identifying the source of the leak. The media have reported that the Fed's investigation was not conducted in accordance with its own internal policy at the time, and that the Fed subsequently changed this policy to afford itself more discretion over investigations into leaks of FOMC information and to avoid referrals to the OIG.[6] Perhaps more troubling than these deficient investigations and the Fed's failure to safeguard confidential information is that both the Fed and the OIG chose not to promptly advise Congress and the American people what had occurred, what they found, and what, if anything, was being done to ensure that such a leak never occurred again.

This history of failure has left the Committee with little confidence in the Fed and the OIG either to identify the source of the leak or to determine how a breach occurred and prevent its recurrence. Because such matters directly implicate the Committee's jurisdiction under clause 1(h) of Rule X of the House of Representatives, the Committee launched its own investigation into both the leak and the mismanagement of the response. Now that the Department of Justice (DOJ) has recently become involved, the Committee is hopeful that DOJ will thoroughly investigate such matters as are within its purview. That investigation, however, is not a substitute for the Committee's own inquiry, which serves legislative interests under Article I of the Constitution rather than law enforcement

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[4] 2 U.S.C. §§192, 194.

[5] *See, e.g.*, Craig Torres, *Fed Leak Handed Traders Profitable Tip, Prompted Secret Inquiry*, Bloomberg, Dec. 1, 2014, http://www.bloomberg.com/news/articles/2014-12-01/fed-leak-handed-traders-profitable-tip-prompted-secret-inquiry.

[6] *See* Binyamin Appelbaum, *Fed Deflects Outside Aid to Investigate Data Leaks*, N.Y. Times, June 4, 2015, http://nyti.ms/1Qv4K8k; Pedro Da Costa, *Yellen: Fed Was Advised Against Fully Complying With Subpoena on Leak Probe*, Wall St. J., June 5, 2015, http://www.wsj.com/articles/yellen-fed-advised-against-fully-complying-with-subpoena-on-leak-probe-1433523063.

interests under Article II. The Committee therefore remains committed to fulfilling its oversight responsibilities to investigate the mishandling of your respective investigations.

You have both advised that complying with the Committee's subpoena could compromise the integrity of the OIG's and/or DOJ's investigation—but it is the integrity of *your* previous investigations that is at issue here. Moreover, your legally baseless refusal to comply with the Committee's subpoena and records requests *is* compromising the integrity of this Committee's lawful investigation and oversight.

This Committee began its inquiry in February 2015, shortly after learning that confidential FOMC information had been leaked over two years prior and that both the Fed and the OIG had failed to find the source of the leak.[7] The Committee requested records related to those closed investigations.[8] The Fed failed to acknowledge or respond to the Committee's request until six weeks had passed, after repeated contact from the Committee.[9] The OIG responded on February 19, 2015, that it would not provide the requested records because "the records [the Committee] requested are in the process of being reviewed by the OIG, in coordination with the Board."[10] One month after the Committee began its investigation the OIG informed the Committee that there was now an open criminal investigation into the leak.[11] In a subsequent letter the OIG claimed it could not provide information about the new investigation to Congress due to DOJ policy regarding open criminal investigations.[12] Since then the Fed and the OIG have continually refused to comply with the Committee's requests for records. The OIG's active obstruction of the Committee's oversight efforts directly conflicts with one of Congress's principal purposes for creating Inspector Generals—to keep "Congress

[7] *See* Torres, *supra* note 5.
[8] Letter from the Hon. Sean Duffy, Chairman, Subcmte. on Oversight & Investigations, H. Comm. on Fin. Serv., to Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System (Feb. 5, 2015); Letter from the Hon. Sean Duffy, Chairman, Subcmte. on Oversight & Investigations, H. Comm. on Fin. Serv., to the Hon. Janet Yellen, Chair, Board of Governors of the Federal Reserve System (Feb. 5, 2015).
[9] *See* Letter from the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv., to the Hon. Janet Yellen, Chair, Board of Governors of the Federal Reserve System (Mar. 13, 2015); Letter from the Hon. Janet Yellen, Chair, Board of Governors of the Federal Reserve System, to the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv. (Mar. 23, 2015).
[10] Letter from Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System, to the Hon. Sean Duffy, Chairman, Subcmte. on Oversight & Investigations, H. Comm. on Fin. Serv. (Feb. 19, 2015).
[11] *See* Letter from the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv., to the Hon. Janet Yellen, Chair, Board of Governors of the Federal Reserve System (Mar. 13, 2015).
[12] Letter from Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System, to the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv. (Mar. 27, 2015).

fully and currently informed about problems and deficiencies relating to the administration" of congressionally-created agencies.[13]

The timing of the recent criminal investigation into the leak is suspect. While the Committee is encouraged that DOJ is now investigating this matter, DOJ's involvement comes more than two years after the events in question—almost certainly making the investigation more difficult to conclude successfully. Moreover, both the Fed and the OIG had ample opportunity to provide the requested records to the Committee before the criminal investigation was reopened. Instead, following the Committee's requests for records relating to investigations that both the Fed and the OIG characterized as closed, the OIG suddenly "reopened" its case and, in concert with the Fed, advised the Committee that it would not comply with the Committee's requests due to an open criminal investigation.[14] This, of course, raises an important question: Other than this Committee's request for records, what new facts suddenly came to the OIG's attention that would warrant "reopening" a long-closed case? Based on the vigorous and coordinated obstruction to this Committee's oversight, one plausible scenario is that the OIG merely "reopened" the investigation to create a pretext for the Fed and the OIG to delay complying with this Committee's requests. That too is now the subject of the Committee's investigation.

This Committee has been clear in its position that it has an absolute right to the requested records.[15] Congress's investigative authority "is inherent in the power to make laws"[16] and is "as penetrating and far reaching as the potential power to enact and appropriate under the Constitution."[17] The Supreme Court has stated that this investigative power "comprehends probes into departments of the federal government to expose corruption, inefficiency, or waste,"[18] and authorizes Congress "to inquire into and publicize corruption, maladministration, or inefficiencies in the agencies of Government."[19] House and Senate committees have routinely obtained law enforcement materials regarding cases described by DOJ as "open" or "pending."[20] Despite the Committee's clear constitutional mandate and the

[13] Inspector General Act of 1978, as amended, 5 U.S.C. App §2(3).
[14] Letter from Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System, to the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv. (Mar. 27, 2015).
[15] *See* Letter from the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv., to Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System (Apr. 30, 2015).
[16] *Eastland v. U.S. Servicemen's Fund*, 421 U.S. 491, 504 (1975).
[17] *Barenblatt v. United States*, 360 U.S. 109, 111-12 (1959).
[18] *Watkins v. United States*, 354 U.S. 178, 187 (1957).
[19] *Id.* at 200 n.33.
[20] One particularly salient instance was in 2002, during an investigation before the House Committee on Government Reform into the misuse of informants by the Federal Bureau of Investigation (FBI). *See Investigation Into Allegations of Justice Department Misconduct In New England-Volume I, Hearings Before the H. Comm. on Government Reform*, 107th Cong. (May 3,

persuasive weight of historical evidence, the OIG has claimed that it "must decline" to provide the Committee with any of the requested records, apparently invoking executive privilege over an ongoing criminal investigation as its basis for refusal.[21] At the request of the OIG, the Fed has stated that it is withholding nearly every record the Committee has subpoenaed in reliance upon the OIG's invocation of

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December 13, 2001; Feb. 6, 2002). In that investigation DOJ provided deliberative prosecutorial documents to the Committee, including prosecutorial memoranda for open cases, testimony of FBI field agents and U.S. Attorneys, FBI investigative reports, summaries of FBI interviews, and memoranda and correspondence prepared during undercover operations, among other items. Alissa Dolan et. al., Cong. Research Serv., R42811, Congressional Investigations of the Department of Justice, 1920-2012: History, Law, and Practice 38-39 (2012). During that investigation White House Counsel Alberto Gonzales wrote to Chairman Burton of the Committee on Government Reform conceding that it was a "misimpression" that congressional committees could never have access to deliberative documents from a criminal investigation or prosecution, stating "[t]here is no such brightline policy, nor did we intend to articulate any such policy." Letter from Alberto R. Gonzales, Counsel to the President, to the Hon. Dan Burton, Chairman, H. Government Reform Comm. (Jan. 10, 2002), at 1. Other examples abound. In 1979, the Committees on the Judiciary and Interstate and Foreign Commerce investigated allegations that the Department of Energy and DOJ failed to prosecute alleged fraudulent fuel pricing in the oil industry; in executive session, the committees received testimony and evidence regarding open cases in which indictments were pending and criminal proceedings were in progress. *See* Dolan at 23. The committees also received access to declination memoranda and a DOJ staff attorney testified in open session concerning the reasons why DOJ did not proceed with a particular prosecution. *Id.* In the 1980s, when investigating the Environmental Protection Agency's (EPA) enforcement of the "Superfund" law, an Energy and Commerce subcommittee requested and received from DOJ documents relating to on-going enforcement actions, including memoranda of EPA and DOJ attorneys containing litigation and negotiation strategy, settlement positions, and other similar materials. *See id.* at 27. During approximately the same time period, a Senate Judiciary subcommittee obtained DOJ documents relating to two ongoing investigations of alleged false shipbuilding claims against the U.S. Navy. *See* Todd David Peterson, *Congressional Oversight of Open Criminal Investigations*, 77 Notre Dame L. Rev. 1373, 1401 (2002). Finally, in 1997, the Senate Judiciary Committee obtained a memorandum suggesting that Attorney General Reno appoint an independent counsel to investigate allegations of campaign finance violations notwithstanding DOJ's initial objection that providing the memorandum would violate "longstanding DOJ policy prohibiting disclosure of deliberative material in open criminal cases to Congress and concerns about the chilling effect such disclosures would have on Department personnel in future investigations." Dolan at 37. Moreover, even DOJ's Office of Legal Counsel has opined that "[t]he policy of confidentiality does not necessarily extend to all material contained in investigative files" and that "there may be documents in even the open . . . files that do not implicate . . . constitutional or pragmatic problems" that may be provided to Congress. Congressional Subpoenas of Department of Justice Investigative Files, 8 Op. O.L.C. 252, 267 (1984).

[21] "The OIG's concerns regarding the disclosure of ongoing criminal investigative information to Congress are consistent with the law of executive privilege, as described in the DOJ Office of Legal Counsel (OLC) opinion . . ."; *see* Letter from Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System, to the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv. (May 29, 2015), at 1.

executive privilege.[22] The OIG's position is without legal basis and the Fed is mistaken to rely upon it.

The OIG was created by the Inspector General Act of 1978, as amended (IG Act), which states that "nothing . . . in any . . . provision of this Act shall be construed to authorize or permit the withholding of information from Congress."[23] Remarkably, the OIG has advised the Committee that this is "irrelevant" and that it is relying upon an opinion by DOJ's Office of Legal Counsel (OLC Opinion) that the OIG can invoke executive privilege as a basis for impeding this Committee's investigation.[24] Even assuming, *arguendo*, that (1) the records sought by the Committee are by their character eligible for a claim of executive privilege[25] and (2) the OLC Opinion has any legal force, the opinion explicitly states that "executive privilege cannot be asserted vis-a-vis Congress without specific authorization by the President."[26] The policy of recent administrations, including the Obama Administration, is that the privilege can only be asserted by the President at the written request of the Attorney General.[27] The OIG itself advised the Committee that the OIG has confirmed with DOJ that the OLC Opinion remains in effect.[28] However, this Committee has not received any notification of a Presidential assertion of executive privilege, nor is it aware of any memo by the Attorney General requesting that it be asserted. Thus, because the President has not asserted executive privilege over the requested records, the OIG has no legal basis to interfere with the Committee's

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[22] *See* Letter from the Hon. Janet Yellen, Chair, Board of Governors of the Federal Reserve System, to the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv. (June 4, 2015).
[23] Inspector General Act of 1978, as amended, 5 U.S.C. App § 5(e)(3).
[24] Letter from Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System, to the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv. (May 29, 2015) (citing Congressional Requests for Information from Inspectors General Concerning Open Criminal Investigations, 13 Op. O.L.C. 77 (1989) (hereinafter "OLC Opinion")).
[25] The Supreme Court in two cases has recognized a *limited* Executive privilege, rooted in the Constitution, for Presidential communications, which is not at issue here. Deliberative process privilege, which applies to law enforcement investigations, is "a common law privilege that is 'Executive,' not because it has any constitutional basis, but only in the sense that it is asserted by the Executive" and "is substantially weaker than the already limited Presidential communications privilege." This weaker common law privilege has no application to a congressional subpoena. *See* Memorandum of Points and Authorities in Support of Plaintiff's Motion for Summary Judgment at 19-21, *Comm. on Oversight and Gov't Reform, United States House of Representatives v. Eric H. Holder, Jr.*, No 12-01332 (D.D.C. 2013) (No. 61).
[26] OLC Opinion at 82 n.8.
[27] *See* Letter from Mary Kendal, Deputy Inspector General, U.S. Department of the Interior, to the Hon. Doc Hastings, Chairman, H. Comm. on Natural Resources (Mar. 19, 2014) (explaining the practice by recent administrations on asserting executive privilege); Letter from Eric Holder, Attorney General, to President Barack Obama (June 19, 2012) (requesting the President assert executive privilege over documents related to Operation Fast and Furious).
[28] Letter from Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System, to the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv. (May 29, 2015).

subpoena to the Fed, and the Fed is mistaken to refuse compliance with the subpoena based on the OIG's claim that it is acting "consistent with the law of executive privilege."[29]

However, even if the President attempted to assert executive privilege over the requested records, the privilege does not apply to investigations into government misconduct, such as this one.[30] Courts have found that "where there is reason to believe the documents sought may shed light on government misconduct, the [deliberative process] privilege is routinely denied on the grounds that shielding internal government deliberations in this context does not serve 'the public interest in honest, effective government.'"[31] Consistent with this limitation, past administrations have refrained from invoking executive privilege in matters involving unethical conduct.[32] The Committee is not aware that the Obama Administration has deviated from this established practice. Regardless, executive privilege is not a trump card to evade Congressional oversight. At best it is a qualified privilege and can be overcome by a sufficient showing of need.[33] Given the public facts of the FOMC leak, the requested records are critical to this Committee's ability to ascertain whether misconduct or mismanagement at the Federal Reserve and the OIG has occurred and is continuing to occur. Accordingly, because both the Fed and the OIG have failed to state any cognizable legal basis upon which to withhold the requested records from Congress, the Committee expects full and immediate compliance with its subpoena and investigative requests.

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[29] "The OIG's concerns regarding the disclosure of ongoing criminal investigative information to Congress are consistent with the law of executive privilege, as described in the DOJ Office of Legal Counsel (OLC) opinion . . ."; *see* Letter from Mark Bialek, Inspector General, Board of Governors of the Federal Reserve System, to the Hon. Jeb Hensarling, Chairman, H. Comm. on Fin. Serv. (May 29, 2015), at 1.
[30] *In re Sealed Case (Espy)*, 121 F.3d 729, 745-46 (D.C. Cir. 1997).
[31] *Id.*
[32] Assertion of Executive Privilege in Response to Congressional Demands for Law Enforcement Files, 6 Op. O.L.C. 31, 36 (1982) ("These principles will not be employed to shield documents which contain evidence of criminal or unethical conduct by agency officials from proper review."); *see also* Congressional Subpoenas of Department of Justice Investigative Files, 8 Op. O.L.C. 315 (1984) ("[T]he privilege should not be invoked to conceal evidence of wrongdoing or criminality on the part of executive officers."); Memorandum for All Executive Department and Agency General Counsel's Re: Congressional Requests to Departments and Agencies Protected By Executive Privilege, September 28, 1994, at 1 ("In circumstances involving communications relating to investigations of personal wrongdoing by government officials, it is our practice not to assert executive privilege, either in judicial proceedings or in congressional investigations and hearings.").
[33] *Espy*, 121 F.3d 729, 745; *accord* Todd Garvey et. al., Cong. Research Serv., R42670, Presidential Claims of Executive Privilege: History, Law, Practice, and Recent Developments 1 (2012).

Chair Yellen
Mr. Mark Bialek
June 17, 2015
Page 8

If you have any questions regarding this request, please contact Brett Sisto of the Committee staff at (202) 225-7502.

Sincerely,

JEB HENSARLING
Chairman

SEAN DUFFY
Chairman
Subcommittee on Oversight and Investigations

cc: The Honorable Maxine Waters, Ranking Member
The Honorable Al Green, Ranking Member, Subcommittee on Oversight and Investigations

(b) (6), (b) (7)(C)

From: (b) (6), (b) (7)(C)
Sent: Wednesday, June 17, 2015 12:48 PM
To: (b) (6), (b) (7)(C) (b) (6), (b) (7)(C); (b) (6), (b) (7)(C); (b) (6), (b) (7)(C) (b) (6), (b) (7)(C); (b) (6), (b) (7)(C); (b) (6), (b) (7)(C)
Subject: FW: Lawmakers: Criminal Investigation of Fed Leak Appears Timed to Obstruct Congressional Probe

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FYI

(b) (6), (b) (7)(C) | (b) (6), (b) (7)(C) [redacted]
Office of Inspector General
Board of Governors of the Federal Reserve System | Consumer Financial Protection Bureau
(b) (6), (b) (7)(C) | (b) (6), (b) (7)(C) | [redacted]
OIG Hotline: 800-827-3340 | oighotline@frb.gov

http://oig.federalreserve.gov | http://oig.consumerfinance.gov

From: Financial Services Committee [mailto:fsc.gop.press@mail.house.gov]
Sent: Wednesday, June 17, 2015 12:45 PM
To: (b) (6), (b) (7)(C)
Subject: Lawmakers: Criminal Investigation of Fed Leak Appears Timed to Obstruct Congressional Probe

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Press Release

For Immediate Release | Contacts: Jeff Emerson (202) 226-0471; David Popp (202) 226-2467

June 17, 2015

Lawmakers: Criminal Investigation of Fed Leak Appears Timed to Obstruct Congressional Probe

WASHINGTON – Leaders of the House Financial Services Committee suspect the recent criminal investigation into a 2012 leak of market-sensitive information at the Federal Reserve was timed in an effort to obstruct Congress's investigation into possible misconduct or mismanagement at the Fed.

Last month the Committee subpoenaed the Fed for documents related to the leak of confidential deliberations from a September 2012 Federal Open Market Committee (FOMC) meeting. Details of that FOMC meeting were reported in a client-only special report by Medley Global Advisors before their official release. Medley's clients include hedge funds, institutional investors and asset managers, according to its website.

Both the Federal Reserve and the Fed's Office of Inspector General (OIG) told the Committee they had previously conducted and closed internal investigations but were unable to identify who leaked the information to Medley. However, one month after the Financial Services Committee began its investigation into the matter, the OIG suddenly reopened its investigation and informed the Committee that there was now an open criminal investigation into the leak by the Department of Justice (DOJ). The Fed has cited that inquiry as a basis for its refusal to comply with the congressional subpoena.

In a letter sent today to Federal Reserve Chair Janet Yellen and the OIG, Committee Chairman Jeb Hensarling (R-TX) and Oversight and Investigations Subcommittee Chairman Sean Duffy (R-WI) called the timing of the criminal investigation into the leak "suspect" and a possible "pretext for the Fed and the OIG to delay complying with this Committee's requests."

"That too is now the subject of the Committee's investigation," they said.

"You have both advised that complying with the Committee's subpoena could compromise the integrity of the OIG's and/or DOJ's investigation – but it is the integrity of ***your*** previous investigation that is at issue here," Hensarling and Duffy write. "Moreover, your legally baseless refusal to comply with the Committee's subpoena and records request ***is*** compromising the integrity of this Committee's lawful investigation and oversight."

Moreover, the Committee leaders write that the OIG is erroneously claiming that "executive privilege" prevents it from complying with the Committee's request and the Fed is relying upon this claim as a basis to refuse to comply with the subpoena.

However, executive privilege cannot be asserted to Congress without specific authorization by the President, according to precedent and DOJ's Office of Legal Counsel.

"However, even if the President attempted to assert executive privilege over the requested records, the privilege does not apply to investigations into government misconduct, such as this one," Hensarling and Duffy write in their letter.

"[P]ast administrations have refrained from invoking executive privilege in matters involving unethical conduct," they note. "Regardless, executive privilege is not a trump card to evade Congressional oversight."

The Committee therefore "expects full and immediate compliance with its subpoena and investigative requests."

###

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Date:

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Version 2.0, September 1, 2013

REVIEW OF POSSIBLE UNAUTHORIZED DISCLOSURE OF CONFIDENTIAL FOMC INFORMATION

Secretary and General Counsel
Federal Open Market Committee

March 14, 2013

Table of Contents

Executive Summary

At the request of the Chairman, the FOMC Secretary and General Counsel have conducted a review of the potential unauthorized disclosure of confidential FOMC information reflected in a September 28, 2012 Wall Street Journal article by Jon Hilsenrath and an October 3, 2012 report by Regina Schleiger of Medley Global Advisors, a provider of macroeconomic policy intelligence to private clients. As part of this review, the FOMC Secretary and General Counsel and their designees contacted more than three hundred individuals and have conducted interviews with sixty different FOMC participants and staff, including each member of the Board of Governors, each Reserve Bank president, the public information officer for each Reserve Bank, and staff members with access to Class I FOMC information who had contact with a representative of the Wall Street Journal or Medley Global Advisors between June 1, 2012 and October 3, 2012.[1] In addition, the FOMC Secretary, General Counsel and their designees have collected and reviewed emails, meeting notes and transcripts, papers and other documents involving contacts between relevant Federal Reserve personnel and representatives of the Wall Street Journal or representatives of Medley Global Advisors during this same period.

This report contains a summary of the information collected through the interviews and document collections conducted in the review and discusses all relevant contacts identified in the review between Federal Reserve personnel and either Wall Street Journal staff or representatives of Medley Global Advisors. [redacted]

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Background

On September 28, 2012, the Wall Street Journal published a front-page article by Jon Hilsenrath entitled "How Bernanke Pulled the Fed His Way" (Attachments B, D). The Hilsenrath article focused on the decision-making process that led to the securities-buying action taken by the FOMC at its September 12-13, 2012 meeting. The Hilsenrath article indicated that it was based on "[i]nterviews with more than a dozen people involved in the Fed decision."

In his article, Hilsenrath made a number of statements that suggest the possible unauthorized disclosure of confidential FOMC information. (b)(5) [redacted] The article also purported to offer insights into certain processes by which the FOMC reached its decision to take further action, although these details—including the existence of communications between the Chairman and FOMC participants—do not necessarily reflect confidential FOMC information. The article focused on the September 12-13 FOMC meeting, but also included potential unauthorized disclosures regarding the June 19-20 and July 31-August 1 FOMC meetings.

Five days after publication of the Hilsenrath article, on October 3, 2012, analyst Regina Schleiger of Medley Global Advisors (MGA)—a provider of macro policy intelligence for hedge funds, institutional investors, and asset managers—published a "Special Report" entitled "Fed: December Bound" (Attachments C, E). The Schleiger memorandum, which was distributed on the day before the minutes of the September 12-13 FOMC meeting were published, purported both to describe policy options presented at the FOMC meeting and to predict the contents of the forthcoming minutes. Although the tone of the memorandum suggested insider access, many of the details provided repeated assertions made in the Hilsenrath article, were erroneous or speculation, or provided background on FOMC processes that have been described publicly in the past by reporters, current or former Federal Reserve personnel, or "Fed watchers." However, certain of the information contained in the memorandum—in particular, the detailed description of one of the policy options set forth in the pre-meeting documents—suggests that Schleiger may have been privy to an independent, unauthorized disclosure of confidential FOMC information.

On September 28, the same day the Hilsenrath article was published, Chairman Bernanke circulated a memorandum expressing his concern and the concern of other FOMC participants that certain items in the article "seemed clearly in violation of our guidelines." Attachment D at 1. After the Schleiger memorandum was published on October 3, Chairman Bernanke circulated a second memorandum on October 4 noting that he and other participants were "deeply troubled" by the report and that it "seems apparent that there have been violations of both the letter and spirit of our guidelines on public communications." Attachment E at 1. As a result, the Chairman informed participants and staff that he had asked the Secretary and General Counsel of the FOMC "to look closely into these matters and report back to me their conclusions."

Annotated versions of the Hilsenrath article and the Schleiger memorandum are attached that identify potential sources for information contained in the article and memorandum. Attachments B and C.

Relevant Authority

Three authorities directly govern confidential FOMC information and the review requested by the Chairman: (1) the Program for Security of FOMC Information (Attachment F); (2) the FOMC Policy on External Communications of Committee Participants (Attachment G); and (3) the FOMC Policy on External Communications of Federal Reserve System Staff (Attachment H).[2]

Pursuant to the Program for Security of FOMC Information,

> Confidential FOMC information includes all privileged information that comes into the possession of the Governors, Federal Reserve Bank Presidents, or Federal Reserve System staff in the performance of their duties for, or pursuant to the direction of, the Committee. Such information covers, but is not limited to, expressions of policy views at FOMC meetings, reasons for those views, votes of the Committee, and staff forecasts. The information that must be kept confidential may be in any form. It includes not only paper documents, but also electronic messages and files, recordings, notes, oral briefings, and discussions relating to confidential FOMC matters. Attachment F at 1.

The security program provides three security classifications for confidential FOMC information, the highest of which is "Class I FOMC – Restricted Controlled (FR)." Pursuant to the security program, this classification "is generally applied to information that includes policymaker input, e.g., information related to monetary policy decisions at meetings, views expressed by policymakers on likely future policy, and identification of meeting participants who express particular views." Tealbook Book B and special memoranda or reports deemed particularly sensitive are among the written materials subject to Class I designation.

The FOMC Policy on External Communications of Committee Participants "focuses specifically on external communications and is binding on all FOMC participants," "that is, the members of the Federal Reserve Board and the presidents of the Federal Reserve Banks." Recognizing that "[t]wo-way communication with the public is a crucial element in the FOMC's monetary policy process," the participant policy sets forth a number of "General Principles"

[2] Each of these authorities is available publicly at http://www.federalreserve.gov/monetarypolicy/rules_authorizations.htm.

supported by "Practical Examples." The first of the general principles states that participants "are free to explain their individual views but are expected to do so in a spirit of collegiality and to refrain from characterizing the views of other individuals on the Committee." Other general principles provide that, "[t]o foster the ongoing frank exchange of views at FOMC meetings, participants will refrain from publicly characterizing such discussions beyond what has been published in the minutes of each FOMC meeting," that "FOMC participants will carefully safeguard all confidential information," and that "participants will strive to ensure that their contacts with members of the public do not provide any profit-making person or organization with a prestige advantage over its competitors." The practical examples portion of the policy makes clear that "[d]isclosure or characterization in any setting of the views that others expressed at an FOMC meeting" is impermissible, and concludes that "good judgment will be essential" in applying the principles set forth in the policy. It also provides that "[w]henever practical, a public information officer or other Federal Reserve staff should be present" when a participant has a "private meeting with members of the public . . . to collect information about the economy."

The FOMC Policy on External Communications of Federal Reserve System Staff is similar in structure to the participant policy. As in the participant policy, the staff policy provides that staff "will carefully safeguard all confidential information" and that staff "will strive to ensure that their contacts with members of the public do not provide any profit-making person, firm, or organization with a prestige advantage over its competitors." The staff policy also provides that, "[t]o foster the ongoing frank exchange of views at FOMC meetings, staff will refrain from characterizing such discussions—apart from what has been published in the minutes of each FOMC meeting—in any contact with an individual, firm, or organization outside of the Federal Reserve System." In addition, the staff policy states that "[w]henever practical, at least two Federal Reserve Staff should be present" at any "private meeting with members of the public . . . to collect information about the economy."

In the event that FOMC information security rules may have been breached, the Program for Security of FOMC Information provides that the FOMC Secretary and General Counsel "will perform an initial review of the incident, in consultation with the Chairman and with the President of a specific Federal Reserve Bank if the violation appears to have involved staff within that Bank. In light of that initial review, the General Counsel will determine whether to request the Board's Inspector General to perform a full investigation of the incident."

With respect to consequences of an FOMC security breach, the Program for Security of FOMC Information provides the following:

> If a staff person at the Federal Reserve Board has been found to be responsible for a breach of FOMC information security, the Chairman will determine the consequences for that individual. If a staff person at a Federal Reserve Bank has been found to be responsible for a breach of FOMC information security, the President of that Bank will determine the consequences for that individual and will inform the Chairman of that determination. If an FOMC participant has been found to be responsible for a breach of FOMC information security, the Committee will determine the consequences for that participant. Attachment F at 5.

Potential Unauthorized Disclosures—Hilsenrath

As discussed above, the Hilsenrath article included information about the June, August, and September 2012 FOMC meetings that had not been disclosed by the FOMC prior to the publication of the article. (b)(5) [redacted]

[3] A third category of information in the article addressed the interaction between the Chairman and other participants. The following statements fall within that category: "For weeks, Mr. Bernanke made dozens of private calls on days, nights and weekends, trying to build broad support for an unusual bond-buying program he wanted approved during the Fed's September meeting, according to people familiar with the matter"; "Fed officials described the Fed chairman's phone calls as low-pressure conversations. Mr. Bernanke sometimes dialed up colleagues while in his office on weekends, catching them off guard when their phones identified his private number as unknown. He gave updates on the latest staff forecasts, colleagues said. He asked their thoughts and what they could comfortably support, they said."

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[4] This reference is apparently to the July 25, 2012 "Background Memo on Market Functioning and Limits on Asset Purchases" prepared for the Committee.

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Potential Unauthorized Disclosures—Schleiger

The Schleiger memorandum was dated and released on October 3, 2012, and made a number of predictions regarding the minutes of the FOMC meeting that were to be released the next day. These include that:

"Tomorrow's minutes will reference a staff paper that concludes the market has capacity to absorb purchases this large for a period of time."

"[T]here were multiple drafts within the middle proposal including the eventual outcome of September's meeting."

"The minutes will also show the dovish voting majority was ready to cease the MEP and replace it with open-ended MBS and Treasury purchases as early as last month."

"Within one of the 'primes' was included a proposal to denote conditional guidance around employment and inflation conditions under which the committee might consider withdrawal of policy accommodation and a hike in the Fed funds rate. With Minneapolis Fed president Narayana Kocherlakota's input, a 6.5% (as opposed to the 5.5% later trailed publicly) unemployment threshold was floated in print as a trial balloon."

The Tealbook policy options were not circulated "until after midnight."

Scope of Inquiry

In response to the Chairman's request, the FOMC Secretary and General Counsel worked together to develop a methodology for their review that would serve two principal purposes: (1) to determine the source of any unauthorized disclosures of confidential FOMC information in the Hilsenrath article and the Schleiger memorandum; and (2) to determine whether there are steps that can be taken to help avoid such unauthorized disclosures in the future.

To this end, the inquiry began by focusing on all principals and staff in attendance at the June, August, and September FOMC meetings. These individuals, along with the public information officer for each Reserve Bank, received a questionnaire (Attachment I) designed to elicit all contacts during the relevant time period (June 1, 2012 through October 3, 2012) between these individuals and Hilsenrath, Schleiger, and any other representatives of the Wall Street Journal or Medley Global Advisors. The initial recipients of the questionnaire—114 individuals in total—were also asked to provide any and all emails, notes, calendar entries, phone logs, and other records of such communications. The purpose of the questionnaire was to assess the scope of relevant contacts, to review all relevant documentation, and to identify those individuals for whom follow-up interviews would be required.

Following a review of the questionnaire responses and submitted materials, interviews were conducted with all FOMC participants, each individual who attended any one of the three relevant FOMC meetings and also had any relevant contact with the Wall Street Journal or Medley Global Advisors, and the public information officer of each Reserve Bank and the Board (49 individuals in total). Interviews with members of the Board of Governors, Reserve Bank presidents, and Board staff were conducted in-person at the Board by the FOMC Secretary and General Counsel or their designees. Interviews of Reserve Bank staff were conducted by telephone.

The Secretary and General Counsel subsequently expanded the inquiry to include those within the Federal Reserve System who may have had access to relevant Class I FOMC documents at any time during the period between June 1 and October 5, 2012, even if they did not attend one of the June, August, or September FOMC meetings. Eleven additional interviews were conducted based on the responses received.

No attempt was made to contact (b)(6) or (b)(6) directly.

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No attempt was made to contact (b)(6) or (b)(6) directly.

The review relied on voluntary compliance with the requests for document production and on honest disclosure by all who were interviewed. All FOMC participants and staff identified above were requested to submit telephone logs, notes and emails involving contacts with Hilsenrath and other Wall Street Journal staff and/or Schleiger and other employees of MGA, and a number of these types of records were provided.

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Results of Review—Hilsenrath

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Results of Review—Policies & Practices/Lessons Learned

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Recommendations

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ATTACHMENT A

Chronology of Relevant Events

Date	Event
June 19-20, 2012	FOMC Meeting (June 20 Press Release)
July 25, 2012	Background Memo on Market Functioning and Limits on Asset Purchases
July 31-August 1, 2012	FOMC Meeting (August 1 Press Release)
August 22, 2012	July 31-August 1 Meeting Minutes released
August 30-September 1, 2012	Jackson Hole Economic Policy Symposium
September 4, 2012	Draft statement alternatives distributed via SDS to the Committee without an unemployment threshold option
September 6, 2012	First version of statement proposing 6.5% unemployment threshold distributed to the Committee via SDS
September 7, 2012	Tealbook Book B circulated in early morning hours via SDS
September 12-13, 2012	FOMC Meeting (September 13 Press Release)
September 28, 2012	Hilsenrath article published (Chairman's memorandum re article distributed same day)
October 3, 2012	Medley Global Advisors Special Report published
October 4, 2012	September 12-13 Meeting Minutes released (Chairman's memorandum re Medley Global Advisors Special Report distributed)

ATTACHMENT B

Annotation of Hilsenrath Article

How Bernanke Pulled the Fed His Way **By Jon Hilsenrath** **The Wall Street Journal**	
Fri, 28 Sep 2012 **In late August, Federal Reserve Chairman Ben Bernanke argued on behalf of Fed programs to stimulate the lumbering U.S. economy and signaled that more might follow, making headlines in his highly anticipated speech at the Fed's annual retreat in Jackson Hole, Wyo.** **As markets rallied at the prospect of new measures to ease credit, a quiet drama was unfolding behind the scenes. Mr. Bernanke was negotiating a high-stakes plan in a flurry of private conversations with colleagues hesitant about aggressively re-engaging the levers of America's central bank.** **For weeks, Mr. Bernanke made dozens of private calls on days, nights and weekends, trying to build broad support for an unusual bond-buying program he wanted approved during the Fed's September meeting, according to people familiar with the matter.** **Fed officials in late summer were at odds over how far the central bank should go. Some wanted a bold, innovative program. Others weren't so sure; a few were opposed. Mr. Bernanke set his sights on a handful of fence-sitters who could swing a strong consensus to his side.** **Interviews with more than a dozen people involved in the Fed decision, both supporters and opponents, show how Mr. Bernanke won over skeptics to**	(b)(5)

advance his policy – a distinction in a Washington era marked by rancor and gridlock. These people also gave a rare view of the low-key persistence of the former economics professor.

Mr. Bernanke didn't see inflation as a threat but viewed unemployment as a deeper problem than he had realized. The central bank, in his view, needed to act. The Fed chairman listened to colleagues' concerns during the calls, people familiar with the matter said, drawing out their reservations and probing for common ground. He eventually seized on a compromise that came from a little-known Fed governor.

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The result of the Fed's two-day meeting that began Sept. 12 was an 11-1 vote to undertake one of the central bank's most ambitious stimulus programs. The Fed announced it would buy $40 billion a month of mortgage-backed securities and, for the first time, promised to keep buying until the U.S. job market substantially improved.

The commitment marked a change from the stop-and-start programs the Fed had launched since the financial crisis.

"This is a 'Main Street' policy," Mr. Bernanke said after the September meeting. "What we are about here is trying to get jobs going." The bond buying aims to drive down long-term interest rates and push up the values of homes, stocks and other financial assets. Officials hope their commitment will jolt households and businesses into spending, investing and hiring.

Drawing broad support for the plan was important to Mr. Bernanke in part because the policies he was formulating could outlast him. His term as Fed chairman ends in January 2014. Seeing a return to U.S. full employment as a distant goal, Mr. Bernanke needed the support of officials who might remain at the Fed after he left.

Roots of the Fed decision stretched to March, when Mr. Bernanke in a speech warned the U.S. economy wasn't growing fast enough. Since September 2011, the economy had produced about 200,000 jobs a month, driving down unemployment. But Mr. Bernanke warned that a slowdown would hobble hiring. Indeed, job gains by midyear fell to less than 100,000 a month.

At the central bank's June policy meeting, Fed Governor Daniel Tarullo, a lawyer appointed by President Barack Obama, said the economy felt like a vehicle "stuck in the mud," according to people there. The analogy stuck. A month later, Mr. Bernanke used the same phrase with Congress.

The meeting yielded what Mr. Bernanke considered an important step: the extension of Operation Twist, a Fed program to buy $45 billion of long-term Treasury securities each month, paid with the sales of short-term securities. The program – intended to put downward pressure on long-term rates -- was supposed to expire on June 30. The Fed agreed to keep it going through December, giving Mr. Bernanke time to make sense of the slowing job market and consider further action.

To move forward, Mr. Bernanke needed to corral several colleagues, including regional Fed bank president Dennis Lockhart from Atlanta, who had a vote on the Federal Open Market Committee, the Fed's decision making body.

Under Fed rules, four of the 12 regional Fed banks vote on the committee on a rotating basis; a fifth, the New York Fed, always votes.

Mr. Lockhart, a former banker who spent much of his career working in emerging markets, said in an interview after the September meeting that he had spent his summer trying to "take stock of the recovery." He debated whether the U.S. had an economy with a 3% growth trend that was hit by bad luck – Europe's financial turmoil, for one. Or was it an economy growing at a 2% annual rate that couldn't sustain job growth and needed help? A string of weak economic data suggested it was the

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latter. Like others, Mr. Lockhart had reservations about the effectiveness of Fed policies. Earlier bond buying hadn't yet produced strong growth. The banking system, still damaged by the financial crisis, wasn't delivering credit the way economists expected, given historically low interest rates. Still, Mr. Lockhart thought a program targeting the U.S. housing market might help. Mr. Bernanke also worked on nonvoters, including Narayana Kocherlakota, who was going through his own transformation. Several months after becoming president of the Minneapolis Fed in 2009, Mr. Kocherlakota believed the job market had structural problems beyond the reach of monetary policy -- for example, too many construction workers who couldn't easily be trained for other jobs. Mr. Kocherlakota joined Fed skeptics, so-called hawks, who doubted the effectiveness of central bank activism. During his turn as a Fed voter last year, he voted twice against loosening credit, moves championed by Mr. Bernanke. Though they disagreed on policy, Mr. Bernanke and Mr. Kocherlakota were kindred spirits. Mr. Kocherlakota is a scholarly Ph.D. economist who enrolled at Princeton University at age 15. Mr. Bernanke, equally wonky, was later chairman of Princeton's economics department years later. Mr. Kocherlakota and Mr. Bernanke exchanged emails over months, debating structural unemployment -- the idea that unemployment was caused by mismatches between employer needs and the skills and location of workers. In Mr. Bernanke's view, employers weren't hiring because of weak demand for their goods and	(b)(5)

services, which Fed policies might help remedy.

"I've learned a lot by talking to him," Mr. Kocherlakota said in an interview after the September meeting. Mr. Bernanke's "thinking is framed by data and models," he said. "It beats coming in there with just your gut." By summer, Mr. Kocherlakota said, his views about structural unemployment were shifting as he found the evidence less than persuasive. This left an opening for Mr. Bernanke.

As the Fed's August meeting approached, Mr. Bernanke and his inner circle, which included Fed Vice Chairwoman Janet Yellen and New York Fed President William Dudley, were thinking that any Fed action should be a comprehensive and novel package, rather than an incremental step, according to people familiar with their views. They agreed to take time to confirm their views of the U.S. economy and develop consensus for a plan.

The August meeting turned into a policy staging ground. One proposal on an internal list of three policy options was a new bond-buying program, according to people familiar with the list. Mr. Bernanke didn't push. But it allowed a chance for officials to debate the pros and cons of a new program – in effect, a practice run for September.

Some officials argued for more bond buying. Others worried about the Fed turning into too big a player in bond markets, disrupting trading in Treasury securities or mortgage securities. Fed staff wrote a memo ahead of the meeting detailing the market's capacity to absorb central bank purchases of Treasury bonds and mortgage-backed securities. They found that the Fed could carry on a large program for a couple of years if needed without disturbing markets. The finding helped set boundaries for what the Fed could do and for how long.

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The Fed's policy committee emerged from the August meeting with familiar fissures. Opponents of the Fed's easy-money policies said the measures weren't giving the economy much of a lift, while risking future inflation.

Dallas Fed president Richard Fisher said the Fed was like a doctor over-prescribing Ritalin to attention-deficient Wall Street traders.

Richmond Fed president Jeffrey Lacker dissented in August for the fifth straight meeting, taking issue with a policy already in place: An assurance the Fed had given that short-term interest rates would remain near zero through late 2014.

Philadelphia Fed President Charles Plosser said in an interview that he urged Mr. Bernanke to wait until year-end before deciding on any new programs.

Despite their public disagreements, Fed officials were friendly behind the scenes. Mr. Plosser, who favors tighter credit policies, and the Chicago Fed's Charles Evans, who wants easier credit, play golf together. They joined Mr. Fisher and Mr. Lockhart for a round at the Chevy Chase Country Club after the August meeting.

By late summer, the Fed had made clear it was prepared to act if the economy continued to languish. The question was how?

Many Fed activists wanted a[n] open-ended program of bond purchases that would continue until the economy improved. Among them, some wanted to go big – at least a few hundred billion dollars worth over several months -- with a promise to keep buying as needed. Moreover, some wanted to replace Operation Twist with bigger purchases of mortgage-backed securities and Treasurys.

As the September meeting neared, Mr. Bernanke needed to assure colleagues who still had reservations about moving too aggressively. In

addition to Mr. Lockhart, Cleveland Fed president Sandra Pianalto had been wavering. She was among those who worried more Fed bond buying could disrupt markets. Another fence-sitter was Washington-based Fed Governor Elizabeth Duke, a plainspoken Virginia banker nominated to the Fed board by President George W. Bush in 2007. Fed officials described the Fed chairman's phone calls as low-pressure conversations. Mr. Bernanke sometimes dialed up colleagues while in his office on weekends, catching them off guard when their phones identified his private number as unknown. He gave updates on the latest staff forecasts, colleagues said. He asked their thoughts and what they could comfortably support, they said.	(b)(5)
The calls helped Mr. Bernanke gauge how far he could push his committee. It also won him trust among some of his fiercest opponents, officials said. Nearly all of Mr. Bernanke's colleagues described him as a good listener. "Even if you disagree with him on the programs, you know your voice has been heard," said Mr. Fisher, one of his opponents. "There is no effort to bully." Negotiations stepped up in the week before the meeting. Fed staff circulated language for policy options. Officials debated how different approaches would be described in the policy statement, which would be released after the meeting. Officials at Fed policy meetings typically consider three options: one representing activists who want to use monetary policy aggressively; another supporting officials seeking conservative use; and a middle-ground option that typically prevails. The premeeting documents this time listed four options, including an aggressive approach favored by activists, and no bond buying, favored by hawks. Among two middle-ground proposals was a compromise that Ms. Duke originated.	

Five days before the meeting, Mr. Bernanke took time out for the Washington Nationals – his favorite baseball team was having a dream season. He arrived at the ballpark in a worn Nationals cap and wandered the infield during batting practice.

"I wanted to ask him if I should get some gold and silver but I bit my tongue," said Nationals manager Davey Johnson. Instead, they talked about how Mr. Johnson, a math major, used statistics to manage his lineup.

At the meeting the following week, the Fed adopted the compromise that Ms. Duke helped spur.

The Fed would continue Operation Twist through December but add an open-ended mortgage-bond buying program.

Activists got what they most wanted: An open-ended commitment to buy mortgage bonds until the job market improved, with the strong possibility of additional Treasury purchases later. Fence-sitters got a promise to review the plan before deciding to proceed with a bigger program in 2013.

Mr. Lockhart said the chance to reassess the program based on inflation and the performance of the job market helped win him over.

With an agreement on bond buying largely in place, Fed officials at the September meeting left unanswered this question: When could they leave

(b)(5)

growth of the U.S. economy on its own? Mr. Kocherlakota and Mr. Evans failed to get agreement for inflation and unemployment thresholds to determine when to raise short-term rates, according to people familiar with the talks. "It's an ongoing discussion," Mr. Plosser said. "We will probably continue to work on this."	(b)(5)

ATTACHMENT C

Annotation of Schleiger Memorandum[13]

Fed: December Bound **SUMMARY: Though tomorrow's FOMC minutes will highlight the extent of dissension over the efficacy of additional policy easing announced at the September meeting, more is likely after the US presidential elections.** **The US Federal Reserve has stepped to the sidelines ahead of the presidential elections, to work on its evolving policymaking framework following September's decision to embark on further significant easing.** **The minutes of September's meeting will show, however, that the groundwork for further action in coming months has been laid and that labor market improvement is unlikely to be substantial enough to stave off new Treasury purchases into 2013.** **The minutes, due at 2 p.m. EDT tomorrow, will also highlight the intense debate between Federal Open Market Committee participants over the efficacy of using the balance sheet to ease conditions further and reference again, other potential policy tools, including changes to the 2015 predictive guidance.** **While the minutes will reveal greater contention over large-scale asset purchases than chairman Ben Bernanke's August Jackson Hole speech did, the tone will clearly convey that economic risks remain tilted to the downside and will lean in the direction of more action.** **Assuming economic conditions have not vastly improved, the FOMC is therefore likely to vote as early as its December meeting (at which point there**	(b)(5)

[13] Note that the Schleiger memorandum includes numerous grammatical and punctuation errors and those errors remain in the reproduction of the article contained here.

(b)(5)

will be a new system-wide forecast round) to cease the Maturity Extension Program (MEP) on schedule and replace it with monthly Treasury bond purchases of around $45 billion -- similar to the current monthly average.

The committee will attach a predictive timeline outlining the duration of these purchases, that will be dependent on the economy recovering substantially.

The monthly MBS purchases of around $40 billion launched in September will continue alongside this new program.

Tomorrow's minutes will reference a staff paper that concludes the market has capacity to absorb purchases this large for a period of time.

The minutes will also show the dovish voting majority was ready to cease the MEP and replace it with open-ended MBS and Treasury purchases as early as last month. By year end, they are likely to get what they want.

<u>A motley crew</u>

While not highly unusual, within the menu of three policy options finally presented to the FOMC at the meeting were subsets of drafts of potential policy actions, denoted as "primes" in Fed-speak The first main option is usually an extremely hawkish proposal, the last is very dovish and contains elements some participants lightly jest, serve as "trailers" for policy decisions in subsequent meetings. The middle option, though not always the case, is traditionally the chairman's preferred outcome.

In this meeting, there were multiple drafts within the middle proposal including the eventual outcome of September's meeting. The language in these drafts can be tweaked at the meeting by participants determined to have some input.

In the week leading up to the meetings, the options are circulated and can change -- sometimes markedly -- by the time the participants gather around the table. The "Teal Book," which contains the staff forecasts and the policy options, is circulated in two parts. The staff forecasts circulate first and what used to be known as the "Blue Book," which contains the policy options, follows.

It is not unusual for board staff to pull all-nighters working on the final draft of the policy recommendations, once these has been commented on. This one took until after midnight.

Within one of the "primes" was included a proposal to denote conditional guidance around employment and inflation conditions under which the committee might consider withdrawal of policy accommodation and a hike in the Fed funds rate. With Minneapolis Fed president Narayana Kocherlakota's input, a 6.5% (as opposed to the 5.5% later trailed publicly) unemployment threshold was floated in print as a trial balloon.

The leadership knew this would not get anywhere that day but it served to propel forward a vigorous debate between committee participants about assigning potential numerical parameters on conditionality for "lift-off" which has led to some of the recent public expositions of preferred thresholds. It has also implied a degree of inevitability over the Fed deciding to put numerical conditionality around its forward guidance on rates.

So varied were views on the committee going into September's meeting that many participants were unsure of the outcome. Committee members who at the time of the Jackson Hole meeting said they were prepared to dissent over additional action were coaxed into doing more in the ensuing weeks and fell into line behind the chairman by the time the FOMC met.

(b)(5)

(b)(5)

[redacted]

Swapping calendar lift-off for conditionality

After the September meeting, Kocherlakota publicly suggested the Fed should not consider lift-off as long as the medium-term outlook for inflation does not exceed 2.25%, or until the unemployment rate has fallen below 5.5%.

Many Fed system officials believe so-called "full employment" to be between 5.5-6.5%. The Fed's current longer-run goal on unemployment is 5.2-6.0%.

While Kocherlakota's proposal is viewed as far fetched, the policy optionality he emphasizes if either side breaches thresholds to maintain Fed funds at an extraordinarily low level (0-0.25%) depending upon conditions, appeals to the leadership.

The committee has been debating such conditionality for a year and a half already. The ultimate objective of specifying such parameters is to reassure markets that policy will remain highly accommodative for a considerable time after the economy strengthens – which is currently not expected to occur for four more years. Chicago Fed President Charlie Evans has long advocated what he calls a "7/3 threshold": no rise in fed funds unless unemployment falls below 7% or the outlook for inflation over the medium term exceeds 3%.

As an illustration of the difficulty the committee has had on agreeing parameters, when putting together its principles on longer-run goals an monetary policy strategy earlier this year, it nailed an inflation target but failed on the employment/growth side of the mandate. It settled on a rate of 2% as a longer-run goal for inflation

but noted that unemployment was largely determined by non-monetary factors and not directly measurable, rendering a fixed employment goal inappropriate. Within the meeting options over several months, some versions of numerical conditionality have shown up in the hawkish "A" option, mostly to spur ongoing discussion. While the committee got close to potentially articulating one such version at an earlier meeting, there remained too much opposition to the proposal at the time and participants were too evenly split to form a majority consensus. Still the momentum behind a collective desire to get away from the 2015 calendar guidance in the FOMC statement will likely force agreement on numerical conditionality before too long.	(b)(5)

ATTACHMENT D

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

BEN S. BERNANKE
CHAIRMAN

September 28, 2012

Dear Colleagues:

I have heard from a number of you about this morning's Wall Street Journal article by Jon Hilsenrath (attached). Hilsenrath interviewed quite a few participants, and (from the perspective of FOMC communications guidelines) much of what he reported seemed fine -- I am thinking, for example, of the explanations of several participants of their own views about policy. But there were also a number of items in the article that seemed clearly in violation of our guidelines -- for example, references to the specific alternatives under consideration by the Committee and information about research done by the staff for the Committee. Also, it seems clear that the views of some participants were described by others, rather than by the individual participants themselves. I very much share the concerns raised by some of you about these violations.

Clearly, we need to try harder to adhere to the letter and spirit of the guidelines. For example, I would urge particular care when speaking to reporters who are actively seeking the views of a large number of participants in order to piece together a narrative, as in this case. However, as we have had several previous incidents like this one, it may be that we also need to think further about the guidelines themselves -- either to strengthen them or to change our expectations for what the guidelines can accomplish. If participants believe that our communications guidelines no longer serve the purpose for which they were intended and that they should be reconsidered or amended, I encourage them to convey their views to me and to Governor Yellen in her role as chair of our communications subcommittee.

Sincerely,

Ben

Attachment

How Bernanke Pulled the Fed His Way

By Jon Hilsenrath
The Wall Street Journal
Fri, 28 Sep 2012

In late August, Federal Reserve Chairman Ben Bernanke argued on behalf of Fed programs to stimulate the lumbering U.S. economy and signaled that more might follow, making headlines in his highly anticipated speech at the Fed's annual retreat in Jackson Hole, Wyo.

As markets rallied at the prospect of new measures to ease credit, a quiet drama was unfolding behind the scenes. Mr. Bernanke was negotiating a high-stakes plan in a flurry of private conversations with colleagues hesitant about aggressively re-engaging the levers of America's central bank.

For weeks, Mr. Bernanke made dozens of private calls on days, nights and weekends, trying to build broad support for an unusual bond-buying program he wanted approved during the Fed's September meeting, according to people familiar with the matter.

Fed officials in late summer were at odds over how far the central bank should go. Some wanted a bold, innovative program. Others weren't so sure; a few were opposed. Mr. Bernanke set his sights on a handful of fence-sitters who could swing a strong consensus to his side.

Interviews with more than a dozen people involved in the Fed decision, both supporters and opponents, show how Mr. Bernanke won over skeptics to advance his policy -- a distinction in a Washington era marked by rancor and gridlock. These people also gave a rare view of the low-key persistence of the former economics professor.

Mr. Bernanke didn't see inflation as a threat but viewed unemployment as a deeper problem than he had realized. The central bank, in his view, needed to act. The Fed chairman listened to colleagues' concerns during the calls, people familiar with the matter said, drawing out their reservations and probing for common ground. He eventually seized on a compromise that came from a little-known Fed governor.

The result of the Fed's two-day meeting that began Sept. 12 was an 11-1 vote to undertake one of the central bank's most ambitious stimulus programs. The Fed announced it would buy $40 billion a month of mortgage-backed securities and, for the first time, promised to keep buying until the U.S. job market substantially improved.

The commitment marked a change from the stop-and-start programs the Fed had launched since the financial crisis.

"This is a 'Main Street' policy," Mr. Bernanke said after the September meeting. "What we are about here is trying to get jobs going." The bond buying aims to drive down long-term interest rates and push up the values of homes, stocks and other financial assets. Officials hope their commitment will jolt households and businesses into spending, investing and hiring.

Drawing broad support for the plan was important to Mr. Bernanke in part because the policies he was formulating could outlast him. His term as Fed chairman ends in January 2014. Seeing a return to U.S. full employment as a distant goal, Mr. Bernanke needed the support of officials who might remain at the Fed after he left.

Roots of the Fed decision stretched to March, when Mr. Bernanke in a speech warned the U.S. economy wasn't growing fast enough. Since September 2011, the economy had produced about 200,000 jobs a month, driving down unemployment. But Mr. Bernanke warned that a slowdown would hobble hiring. Indeed, job gains by midyear fell to less than 100,000 a month.

At the central bank's June policy meeting, Fed Governor Daniel Tarullo, a lawyer appointed by President Barack Obama, said the economy felt like a vehicle "stuck in the mud," according to people there. The analogy stuck. A month later, Mr. Bernanke used the same phrase with Congress.

The meeting yielded what Mr. Bernanke considered an important step: the extension of Operation Twist, a Fed program to buy $45 billion of long-term Treasury securities each month, paid with the sales of short-term securities. The program -- intended to put ~~downward pressure on long-term rates -- was supposed to expire on June 30. The Fed~~ agreed to keep it going through December, giving Mr. Bernanke time to make sense of the slowing job market and consider further action.

To move forward, Mr. Bernanke needed to corral several colleagues, including regional Fed bank president Dennis Lockhart from Atlanta, who had a vote on the Federal Open Market Committee, the Fed's decision making body. Under Fed rules, four of the 12 regional Fed banks vote on the committee on a rotating basis; a fifth, the New York Fed, always votes.

Mr. Lockhart, a former banker who spent much of his career working in emerging markets, said in an interview after the September meeting that he had spent his summer trying to "take stock of the recovery." He debated whether the U.S. had an economy with a 3% growth trend that was hit by bad luck -- Europe's financial turmoil, for one. Or was it an economy growing at a 2% annual rate that couldn't sustain job growth and needed help? A string of weak economic data suggested it was the latter.

Like others, Mr. Lockhart had reservations about the effectiveness of Fed policies. Earlier bond buying hadn't yet produced strong growth. The banking system, still damaged by the financial crisis, wasn't delivering credit the way economists expected, given historically low interest rates. Still, Mr. Lockhart thought a program targeting the U.S. housing market might help.

Mr. Bernanke also worked on nonvoters, including Narayana Kocherlakota, who was going through his own transformation.

Several months after becoming president of the Minneapolis Fed in 2009, Mr. Kocherlakota believed the job market had structural problems beyond the reach of monetary policy -- for example, too many construction workers who couldn't easily be trained for other jobs.

Mr. Kocherlakota joined Fed skeptics, so-called hawks, who doubted the effectiveness of central bank activism. During his turn as a Fed voter last year, he voted twice against loosening credit, moves championed by Mr. Bernanke.

Though they disagreed on policy, Mr. Bernanke and Mr. Kocherlakota were kindred spirits. Mr. Kocherlakota is a scholarly Ph.D. economist who enrolled at Princeton University at age 15. Mr. Bernanke, equally wonky, was later chairman of Princeton's economics department years later.

Mr. Kocherlakota and Mr. Bernanke exchanged emails over months, debating structural unemployment -- the idea that unemployment was caused by mismatches between employer needs and the skills and location of workers. In Mr. Bernanke's view, employers weren't hiring because of weak demand for their goods and services, which Fed policies might help remedy.

"I've learned a lot by talking to him," Mr. Kocherlakota said in an interview after the September meeting. Mr. Bernanke's "thinking is framed by data and models," he said. "It beats coming in there with just your gut."

~~By summer, Mr. Kocherlakota said, his views about structural unemployment were~~ shifting as he found the evidence less than persuasive. This left an opening for Mr. Bernanke.

As the Fed's August meeting approached, Mr. Bernanke and his inner circle, which included Fed Vice Chairwoman Janet Yellen and New York Fed President William Dudley, were thinking that any Fed action should be a comprehensive and novel package, rather than an incremental step, according to people familiar with their views. They agreed to take time to confirm their views of the U.S. economy and develop consensus for a plan.

The August meeting turned into a policy staging ground. One proposal on an internal list of three policy options was a new bond-buying program, according to people familiar with the list. Mr. Bernanke didn't push. But it allowed a chance for officials to debate the pros and cons of a new program -- in effect, a practice run for September.

Some officials argued for more bond buying. Others worried about the Fed turning into too big a player in bond markets, disrupting trading in Treasury securities or mortgage securities. Fed staff wrote a memo ahead of the meeting detailing the market's capacity to absorb central bank purchases of Treasury bonds and mortgage-backed securities. They found that the Fed could carry on a large program for a couple of years if needed without disturbing markets. The finding helped set boundaries for what the Fed could do and for how long.

The Fed's policy committee emerged from the August meeting with familiar fissures. Opponents of the Fed's easy-money policies said the measures weren't giving the economy much of a lift, while risking future inflation.

Dallas Fed president Richard Fisher said the Fed was like a doctor over-prescribing Ritalin to attention-deficient Wall Street traders. Richmond Fed president Jeffrey Lacker dissented in August for the fifth straight meeting, taking issue with a policy already in place: An assurance the Fed had given that short-term interest rates would remain near zero through late 2014. Philadelphia Fed President Charles Plosser said in an interview that he urged Mr. Bernanke to wait until year-end before deciding on any new programs.

Despite their public disagreements, Fed officials were friendly behind the scenes. Mr. Plosser, who favors tighter credit policies, and the Chicago Fed's Charles Evans, who wants easier credit, play golf together. They joined Mr. Fisher and Mr. Lockhart for a round at the Chevy Chase Country Club after the August meeting.

By late summer, the Fed had made clear it was prepared to act if the economy continued to languish. The question was how?

Many Fed activists wanted a open-ended program of bond purchases that would continue until the economy improved. Among them, some wanted to go big -- at least a few hundred billion dollars worth over several months -- with a promise to keep buying as needed. Moreover, some wanted to replace Operation Twist with bigger purchases of mortgage-backed securities and Treasurys.

As the September meeting neared, Mr. Bernanke needed to assure colleagues who still had reservations about moving too aggressively. In addition to Mr. Lockhart, Cleveland Fed president Sandra Pianalto had been wavering. She was among those who worried more Fed bond buying could disrupt markets.

Another fence-sitter was Washington-based Fed Governor Elizabeth Duke, a plain-spoken Virginia banker nominated to the Fed board by President George W. Bush in 2007.

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"Even if you disagree with him on the programs, you know your voice has been heard," said Mr. Fisher, one of his opponents. "There is no effort to bully."

Negotiations stepped up in the week before the meeting. Fed staff circulated language for policy options. Officials debated how different approaches would be described in the policy statement, which would be released after the meeting.

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"I wanted to ask him if I should get some gold and silver but I bit my tongue," said Nationals manager Davey Johnson. Instead, they talked about how Mr. Johnson, a math major, used statistics to manage his lineup.

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Activists got what they most wanted: An open-ended commitment to buy mortgage bonds until the job market improved, with the strong possibility of additional Treasury purchases later. Fence-sitters got a promise to review the plan before deciding to proceed with a bigger program in 2013. Mr. Lockhart said the chance to reassess the program based on inflation and the performance of the job market helped win him over.

With an agreement on bond buying largely in place, Fed officials at the September meeting left unanswered this question: When could they leave growth of the U.S. economy on its own? Mr. Kocherlakota and Mr. Evans failed to get agreement for inflation and unemployment thresholds to determine when to raise short-term rates, according to people familiar with the talks.

"It's an ongoing discussion," Mr. Plosser said. "We will probably continue to work on this."

ATTACHMENT E

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

BEN S. BERNANKE
CHAIRMAN

October 4, 2012

Dear Colleagues:

I wanted to follow up on the communication I sent around last week in the wake of our concerns about the 9/28/12 WSJ piece. Many of us are deeply troubled also by a report to clients yesterday by Medley Global Advisors (attached).

It seems apparent that there have been violations of both the letter and spirit of our guidelines on public communications. I have therefore asked (b)(6), (b)(7)(C) [redacted] (b)(6), (b)(7)(C) [redacted] to look closely into these matters and report back to me their conclusions. I expect you will all give them your very prompt and full cooperation in this exercise. After this work has been completed, I will consider possible next steps and will update all of you.

Let me reiterate that I believe the communications guidelines offer us a workable path toward maintaining collegiality on the Committee, helping the public understand our actions and perspectives, and protecting important confidentiality in certain areas. They will only be effective, though, to the extent that there is full cooperation by FOMC participants and staff to the letter and spirit therein. To that end, I have asked (b)(6), (b)(7)(C) [redacted] (b)(6), (b)(7)(C) [redacted] to continue a conversation [redacted] started with the Reserve Bank public affairs officers last week about sensitivities in this arena. [redacted] goal will be to help equip the public affairs offices as they assist each of us to work within the external communications guidelines.

Sincerely,

Ben

Attachment

MGA
LEADING POLICY INTELLIGENCE

SPECIAL REPORT

OCTOBER 3, 2012

Fed: December Bound

SUMMARY: Though tomorrow's FOMC minutes will highlight the extent of dissension over the efficacy of additional policy easing announced at the September meeting, more is likely after the US presidential elections.

The US Federal Reserve has stepped to the sidelines ahead of the presidential elections, to work on its evolving policymaking framework following September's decision to embark on further significant easing.

The minutes of September's meeting will show, however, that the groundwork for further action in coming months has been laid and that labor market improvement is unlikely to be substantial enough to stave off new Treasury purchases into 2013.

The minutes, due at 2 p.m. EDT tomorrow, will also highlight the intense debate between Federal Open Market Committee participants over the efficacy of using the balance sheet to ease conditions further and reference again, other potential policy tools, including changes to the 2015 predictive guidance.

While the minutes will reveal greater contention over large-scale asset purchases than chairman Ben Bernanke's August Jackson Hole speech did, the tone will clearly convey that economic risks remain tilted to the downside and will lean in the direction of more action.

Assuming economic conditions have not vastly improved, the FOMC is therefore likely to vote as early as its December meeting (at which point there will be a new system-wide forecast round) to cease the Maturity Extension Program (MEP) on schedule and replace it with monthly Treasury bond purchases of around $45 billion – similar to the current monthly average.

The committee will attach a predictive timeline outlining the duration of these purchases, that will be dependent on the economy recovering substantially. The monthly MBS purchases of around $40 billion launched in September will continue alongside this new program. Tomorrow's minutes will reference a staff paper that concludes the market has capacity to absorb purchases this large for a period of time.

The minutes will also show thedovish voting majority was ready to cease the MEP and replace it with open-ended MBS and Treasury purchases as early as last month. By year end, they are likely to get what they want.

A motley crew

While not highly unusual, within the menu of three policy options finally presented to the FOMC at the meeting were subsets of drafts of potential policy actions, denoted as "primes" in Fed-speak The first main option is usually an extremely hawkish proposal, the last is very dovish and contains elements some participants lightly jest, serve as "trailers" for policy decisions in subsequent meetings. The middle option, though not always the case, is traditionally the chairman's preferred outcome.

In this meeting, there were multiple drafts within the middle proposal including the eventual outcome of September's meeting. The language in these drafts can be tweaked at the meeting by participants determined to have some input.

In the week leading up to the meetings, the options are circulated and can change -- sometimes markedly – by the time the participants gather around the table. The "Teal Book," which contains the staff forecasts and the policy options, is circulated in two parts. The staff forecasts circulate first and what used to be known as the "Blue Book," which contains the policy options, follows.

It is not unusual for board staff to pull all-nighters working on the final draft of the policy recommendations, once these has been commented on. This one took until after midnight.

Within one of the "primes" was included a proposal to denote conditional guidance around employment and inflation conditions under which the committee might consider withdrawal of policy accommodation and a hike in the Fed funds rate. With Minneapolis Fed president Narayana Kocherlakota's input, a 6.5% (as opposed to the 5.5% later trailed publicly) unemployment threshold was floated in print as a trial balloon.

The leadership knew this would not get anywhere that day but it served to propel forward a vigorous debate between committee participants about assigning potential numerical parameters on conditionality for "lift-off" which has led to some of the recent public expositions of preferred thresholds. It has also implied a degree of inevitability over the Fed deciding to put numerical conditionality around its forward guidance on rates.

So varied were views on the committee going into September's meeting that many participants were unsure of the outcome. Committee members who at the time of the Jackson Hole meeting said they were prepared to dissent over additional action were coaxed into doing more in the ensuing weeks and fell into line behind the chairman by the time the FOMC met.

<u>Swapping calendar lift-off for conditionality</u>

~~After the September meeting, Kocherlakota publicly suggested the Fed should not consider lift-off as long~~ as the medium-term outlook for inflation does not exceed 2.25%, or until the unemployment rate has fallen below 5.5%. Many Fed system officials believe so-called "full employment" to be between 5.5-6.5%. The Fed's current longer-run goal on unemployment is 5.2-6.0%.

While Kocherlakota's proposal is viewed as far fetched, the policy optionality he emphasizes if either side breaches thresholds to maintain Fed funds at an extraordinarily low level (0-0.25%) depending upon conditions, appeals to the leadership.

The committee has been debating such conditionality for a year and a half already. The ultimate objective of specifying such parameters is to reassure markets that policy will remain highly accommodative for a considerable time after the economy strengthens – which is currently not expected to occur for four more years. Chicago Fed President Charlie Evans has long advocated what he calls a "7/3 threshold": no rise in fed funds unless unemployment falls below 7% or the outlook for inflation over the medium term exceeds 3%.

As an illustration of the difficulty the committee has had on agreeing parameters, when putting together its principles on longer-run goals an monetary policy strategy earlier this year, it nailed an inflation target but failed on the employment/growth side of the mandate. It settled on a rate of 2% as a longer-run goal for inflation but noted that unemployment was largely determined by non-monetary factors and not directly measurable, rendering a fixed employment goal inappropriate.

Within the meeting options over several months, some versions of numerical conditionality have shown up in the hawkish "A" option, mostly to spur ongoing discussion. While the committee got close to potentially articulating one such version at an earlier meeting, there remained too much opposition to the proposal at the time and participants were too evenly split to form a majority consensus.

Still the momentum behind a collective desire to get away from the 2015 calendar guidance in the FOMC statement will likely force agreement on numerical conditionality before too long.

Analyst: Regina Schleiger

ATTACHMENT F

Program for Security of FOMC Information

As reaffirmed January 24, 2012

I. INTRODUCTION.

The Program for Security of FOMC Information ("the Program") describes what confidential FOMC information is, how it is classified, who has access to it, how it should be handled, and who is responsible for ensuring that it is protected. Everyone with access to confidential FOMC information is required to review and abide by the rules described below.

These security procedures are not intended to preclude discussions within the Federal Reserve of important FOMC-related issues, including the general reasons for the Committee's decisions. Such discussions may be conducted for research purposes or for preparing briefings and other information for Committee members, but care should be taken that all discussion participants have the appropriate level of authorization if confidential information is being shared.

II. DEFINITION OF CONFIDENTIAL FOMC INFORMATION.

Confidential FOMC information includes all privileged information that comes into the possession of the Governors, Federal Reserve Bank Presidents, or Federal Reserve System staff in the performance of their duties for, or pursuant to the direction of, the Committee. Such information covers, but is not limited to, expressions of policy views at FOMC meetings, reasons for those views, votes of the Committee, and staff forecasts. The information that must be kept confidential may be in any form. It includes not only paper documents, but also electronic messages and files, recordings, notes, oral briefings, and discussions relating to confidential FOMC matters.

III. CLASSIFICATION OF CONFIDENTIAL FOMC INFORMATION.

There are three security classifications for confidential FOMC information. The first two classifications —"Class I FOMC – Restricted Controlled (FR)" and "Class II FOMC – Restricted (FR)" — apply to very sensitive FOMC information. Class I FOMC information must be handled at least as securely as material classified by the Federal Reserve Board as "Restricted Controlled (FR)." Access to Class II information is somewhat less restrictive than access to Class I. It must be treated at least as securely as material classified by the Federal Reserve Board as "Restricted (FR)." The classification "Class III FOMC – Internal (FR)" applies to less sensitive information that still requires confidential treatment. It must be handled at least as securely as material classified by the Federal Reserve Board as "Internal (FR)." (See Section VI below for handling requirements.)

Information in these classifications must be kept confidential until it is released to the public by the Chairman or by the Committee Secretary pursuant to Committee instructions. All questions related to the classification, distribution, or handling of documents should be directed to the FOMC Secretariat.

A. "Class I FOMC – Restricted Controlled (FR)."

This classification is generally applied to information that includes policymaker input, e.g., information related to monetary policy decisions at meetings, views expressed by policymakers on likely future policy, and identification of meeting participants who express particular views. Class I information includes, but is not limited to:

1. *Monetary Policy: Strategies and Alternatives* ("Tealbook Book B").
2. Minutes of FOMC meetings.
3. FOMC meeting recordings and transcripts.
4. Policy-related portions of FOMC participants' prepared remarks.
5. Information related to FOMC participants' quarterly economic forecasts and to the associated semiannual Congressional testimony.
6. Special memoranda or reports deemed particularly sensitive, including

materials that might otherwise carry a Class II designation (e.g., a report from the Manager containing information on sensitive foreign exchange operations).

B. "Class II FOMC – Restricted (FR)."

This classification is generally applied to staff forecasts prepared for the FOMC and to information about open market operations. Class II information includes, but is not limited to:

1. *Economic and Financial Conditions: Current Situation and Outlook* ("Tealbook Book A"), and staff projections or assumptions relating to interest rates.
2. Reports of the Manager on domestic and foreign open market operations.
3. Information on Desk operations posted on confidential portions of the "MarketSource" website of the New York Bank.
4. Other materials on economic and financial developments (including foreign), special memoranda, tables, and charts less sensitive than those in Class I, including briefing materials containing Class II information that are produced and circulated within the Board or individual Reserve Banks.

C. "Class III FOMC – Internal (FR)."

This classification is generally applied to less-sensitive background information supporting policy discussions. Class III information includes, but is not limited to, the Tealbook Data Sheets.

D. Security Classification Downgrading of FOMC Information.

FOMC information loses its security classification when the Committee releases it to the public. Class II information is downgraded to Class III six months after the relevant FOMC meeting. Additionally, Tealbook Book B is downgraded from Class I to Class II six months after the relevant FOMC meeting, and from Class II to Class III one year after the relevant meeting.

IV. ACCESS TO CONFIDENTIAL FOMC INFORMATION WITHIN THE FEDERAL RESERVE SYSTEM.

Staff access to confidential FOMC information requires prior authorization. Before gaining access and annually thereafter, the staff member must receive, review, and agree to abide by the rules for handling confidential information that are referred to in this document.

At each Bank, the President, or the Research Director on the President's behalf, is responsible for designating those individuals to be given access to each class of information. At the New York Bank, the Manager of the System Open Market Account may also designate staff on behalf of the President. At the Board, that responsibility is assumed by the Chairman or the Committee Secretary on the Chairman's behalf and by Board members for their assistants. Access at the New York Bank and the Board of Governors is limited on a strict "need-to-know" basis; access at other Banks is subject to the numerical limits noted below. In complying with these limits, Banks may designate different individuals to have access to different documents. For example, one slot could be filled by designating an international economist as having access to all special memoranda relating to foreign currency operations, and a domestic economist as having access to other Class I and Class II memoranda. At each institution, access to Class I and Class II information should be reviewed carefully at least once every year.

A. Access to "Class I FOMC – Restricted Controlled (FR)" materials at Reserve Banks other than the New York Bank (and the Bank that serves as the backup site for Open Market Operations) is restricted to the President and First Vice President and to seven other Bank personnel as well as a limited number of office support staff.

B. Access to "Class II FOMC – Restricted (FR)" materials at Reserve Banks other than the New York Bank (and the Bank that serves as the backup site for

Open Market Operations) is restricted to the President and First Vice President and to eleven other Bank personnel as well as a limited number of office support staff.

C. Access to "Class III FOMC – Internal (FR)" information is limited on a "need-to-know" basis, but no specific limit is set on the number of individuals who may have access to such information at each location.

D. The lists of all persons who are authorized to have access to Class I and Class II information are to be generated and transmitted to the Secretariat annually, after the first regularly scheduled FOMC meeting of the year (at which any changes to the Program would typically be considered). Over the course of the year, changes resulting from new staff assignments should also be transmitted. Records of individuals' agreements to abide by the rules described in the Program should be maintained at each institution. Such records would include individuals' signatures or electronic equivalent. Office support personnel, such as executive assistants, who have substantive access to Class I or Class II information are included in those required to review and agree to the rules described in the Program.

E. To facilitate the preparation of special analyses and briefings within the System, qualified staff may be granted ad-hoc access to Class I and Class II information on a strict "need-to-know" basis for a specific and limited period of time. Such ad-hoc access may be granted by the President of a Federal Reserve Bank or a Research Director on his/her behalf or by the Secretary for Board staff. Staff granted ad-hoc access must review and agree to abide by the rules described in the Program before receiving access. The Secretariat should be advised that such access has been given, and records of the access and related agreement should be maintained at each Bank.

F. The Chairman may make ad-hoc exceptions to this section that are either more or less restrictive for particular documents being circulated or for other confidential information.

G. In order to provide secure and rapid document delivery, access to selected confidential FOMC information is given electronically through the Secure Document System (SDS) for up to four users at each Bank. The Desk at the New York Bank has access for two additional users at that Bank. The President of each Bank may delegate to the Research Director the responsibility for selecting users, monitoring compliance with SDS guidelines, and communicating with the Secretariat when changes in usage or other issues occur. Access to SDS for Board staff is authorized by the Secretary on behalf of the Chairman and monitored by the Secretariat.

H. Eligibility for access to confidential FOMC information for non-US citizens is governed by 12 CFR 268.205. (A summary of this rule, as it pertains to FOMC information, is appended to this document as "Attachment 1.") Eligibility is determined based on a number of factors (including, but not limited to, country of origin, immigration status, length of residency, and employment history) and in many cases may require a background check.

I. Individuals who are not employees may not be given confidential FOMC information unless all the requirement of this section IV, including citizenship requirements, are met and the Secretary gives prior approval.

V. ACCESS TO CONFIDENTIAL FOMC INFORMATION OUTSIDE THE FEDERAL RESERVE SYSTEM.

Access to classified FOMC information outside the Federal Reserve System is limited as follows:

A. Confidential FOMC documents generally are made available to the public after a lag of about five years. Such availability is subject to staff review (including consultation with the Chairman or the Committee where appropriate) for the purpose of redacting any materials that are still deemed to be sensitive after five years. For example, confidential information obtained from or about particular individuals or businesses, foreign governments and central banks, and international institutions that is deemed sensitive after the five-year lag will be protected. In addition, national security classified information that may be contained in FOMC documents remains confidential until it is declassified. The principal objectives of the Committee's policy of withholding sensitive information after the five-year lag are to preserve the Committee's ability to collect needed information, to allow its representatives to participate in sensitive discussions and report on them to the Committee, to avoid disclosures that would adversely affect U.S. international relations, and to comply with the applicable laws governing the disclosure of confidential information.

B. Staff officers of the Committee are authorized to transmit pertinent information on System foreign currency operations to appropriate officials of the Treasury Department.

C. The Chairman may make ad-hoc exceptions to this section that are either more or less restrictive for particular documents or for other confidential information.

VI. HANDLING OF CONFIDENTIAL FOMC MATERIALS.

To assure the necessary confidentiality, it is important that special care be exercised in handling FOMC materials. The minimum requirements for handling confidential FOMC and Federal Reserve information are described in the Federal Reserve Board's "Information Classification & Handling Specifications" document (copies of summary appendices of this document, labeled "Attachment 2-A" and "Attachment 2-B," are attached for convenience and are also available as pages 20-22 at: http://fedweb.frb.gov/Fedweb/board/irm/Infosec/policies/InfoClassificationHandling.pdf). As noted in Section III above, confidential FOMC information must be treated at least as securely as information in the corresponding Federal Reserve Board category. The following requirements are highlighted here:

A. In addition to ensuring that the materials themselves are made available only to staff members who have been given access to them, the information they contain should be discussed with such persons only.

B. Persons who no longer have access to confidential FOMC information, whether because of a job change within the Federal Reserve, employment outside the Federal Reserve, or retirement, must release custody of all confidential materials in their possession and remain subject to all the prohibitions relating to the disclosure of FOMC information that is still confidential.

C. The distribution to the FOMC of all documents, other than the Manager's reports, should be handled through the Secretariat.

D. In addition, to facilitate the identification of Class I and Class II FOMC information, the appropriate coversheet should be placed on all such documents that are to be circulated. (The Tealbook is distinctive in appearance and meets this requirement without an additional cover page.) The most up-to-date coversheets are available on the FOMC Secretariat's web site: (http://fweb.rsma.frb.gov/dma/fomc/).

VII. ONGOING RESPONSIBILITY FOR MAINTAINING CONFIDENTIALITY.

A. The President of each Federal Reserve Bank is responsible for ensuring the confidentiality of FOMC information at that Bank and for the conduct and discretion of that Bank's staff with regard to the use of the information. The Chairman fulfills this role at the Board. No confidential FOMC information may be released except pursuant to

Committee instructions or with written authorization from the Chairman and prompt notification to the FOMC.

B. At each institution (Board or Bank), the basic principles and rules of confidentiality shall be reviewed at least once a year with every individual who has access to confidential FOMC information. In addition to annual circulation of the Program for Security of FOMC Information, institutions may implement further procedures in support of information security.

C. If any FOMC participant or Federal Reserve System staff person becomes aware of an incident in which FOMC information security rules may have been breached, that individual should promptly alert the FOMC Secretary. The Secretary and the FOMC's General Counsel will perform an initial review of the incident, in consultation with the Chairman and with the President of a specific Federal Reserve Bank if the violation appears to have involved staff within that Bank. In light of that initial review, the General Counsel will determine whether to request the Board's Inspector General to perform a full investigation of the incident. The results of that investigation will be reported to the Chairman, who will inform the Committee about those results as appropriate.

D. If a staff person at the Federal Reserve Board has been found to be responsible for a breach of FOMC information security, the Chairman will determine the consequences for that individual. If a staff person at a Federal Reserve Bank has been found to be responsible for a breach of FOMC information security, the President of that Bank will determine the consequences for that individual and will inform the Chairman of that determination. If an FOMC participant has been found to be responsible for a breach of FOMC information security, the Committee will determine the consequences for that participant. The Inspector General will contact law enforcement agencies whenever an investigation indicates that criminal statutes may have been violated.

VIII. FOMC MEETING ATTENDANCE.

A. Except by approval of the Committee, attendance at FOMC meetings, including conference calls, is limited to:

1. Governors and Reserve Bank Presidents and any other Alternate Members. In the absence of a President, a substitute Bank officer designated by the President or the Bank's board of directors.
2. Committee officers. In the absence of an associate economist from a Reserve Bank, one substitute designated in advance by the President, with notice to the Secretariat.
3. The Manager of the System Open Market Account. In the Manager's absence, a substitute designated by the Manager or the President of the New York Bank, with notice to the Secretariat.
4. One adviser or one substitute designated in advance, with notice to the Secretariat, by each President who is not currently a member of the Committee.
5. One First Vice President of a Bank. This designee would be in addition to those listed above. The Secretariat maintains a rotational schedule based on nominations from Banks.
6. One assistant to the Manager, Secretariat assistance, and a limited number of additional members of System staff designated by the Chairman.

B. Attendance may be limited further by the Chairman if a meeting, or portion of a meeting, gives rise to unusual sensitivity problems.

Attachment 1
NON-CITIZEN ELIGIBILITY FOR ACCESS TO FOMC INFORMATION
Summary of 12 C.F.R. 268.205

Access to all FOMC information is governed under the Program for the Security of FOMC Information. Under these rules, U.S. citizens are eligible for access to all levels of FOMC information (Class I, II, and III).[1] As explained below, eligibility for access to FOMC information for non-citizens depends on the individual's job, citizenship status, residency and other requirements. The FOMC applies the same requirements for access to its information that the Board applies when granting access to sensitive information of the Board.[2]

As a general matter, a non-citizen is eligible for access to FOMC Information in only one of two ways—as a *Protected Individual* or as an *Eligible Employee*. Protected Individuals, defined below, are treated similarly to citizens, and are eligible for all levels of FOMC Information. Eligible Employees, defined below, are initially eligible for access based on their country of origin, but may subsequently be eligible for a higher level of access if they meet certain criteria. Non-citizens who are neither Protected Individuals nor Eligible Employees may not be granted access to FOMC Information.

1. Protected Individuals[3]

A "Protected Individual" is a person who is a lawful permanent resident (that is, holds a "green card") and who has taken certain steps toward becoming a U.S. citizen. Those steps require that the person *either*:

A. Sign a declaration of intent to become a U.S. citizen and file for U.S. citizenship within six months of becoming eligible to do so,

or

A. Be an employee of the Federal Reserve System (FRS) since January 1, 2006;
B. File for citizenship before requesting access to FOMC Information; and
C. Pass a background check acceptable to the Board.

A green card holder who does not qualify under one of these criteria is not a Protected Individual, and therefore is eligible for access only if he or she is an Eligible Employee (see below).

2. Eligible Employees

To be an Eligible Employee, the non-citizen must be employed in a position at the Board or Reserve Bank that requires a Ph.D. in economics or finance. If the non-citizen is employed in such a position, his or her eligibility for access is granted in two stages.

A. *Initial Eligibility*: Eligibility in the initial stage depends on whether the non-citizen's country of origin is on the current "country list," which is a list of countries whose citizens may be hired by appropriated federal agencies under

[1] In all cases, whether an individual is a citizen or not, access to information of the FOMC is contingent on both the eligibility discussed here and a "need to know," which involves a determination by the FOMC Secretariat or the FOMC Chairman that the individual must be permitted access at the proposed level in order to perform his or her job. Individuals who are granted access to FOMC information must abide by all rules that apply to the handling of that information.

[2] The Board's rule for access to sensitive information by non-citizens is set forth in 12 C.F.R. 268.205.

[3] Under the Board's rule, the term "Protected Individual" also includes U.S. citizens and U.S. nationals (persons who are born in American Samoa, certain former citizens of the former Trust Territory of the Pacific Islands, and certain children of non-citizen nationals born abroad). The term "Protected Individuals" also covers three additional categories of individuals (those admitted for temporary residence under certain immigration provisions and those granted asylum or refugee status). However, requests for access by persons in these later categories are unlikely to arise and are thus not described here.

federal legislation (see the current country list below).[4]

i. If the non-citizen is from a country on the country list, he or she is eligible initially for Class II access.

ii. If the non-citizen is not from a country on the country list, he or she is eligible initially only for Class III access.

B. *Higher Eligibility*: In the second stage of eligibility, a non-citizen can become eligible for access to information one level higher (i.e., a non-citizen from a country list country can become eligible for Class I access and a non-citizen who is not from a country list country can become eligible for Class II access). A non-citizen is eligible for this next level of access if he or she has:

i. Resided in the United States for six years;

ii. Been employed with the FRS for two years;

iii. Been recommended for a higher level of access by his or her division director; and

iv. Passed a background check acceptable to the Board.

COUNTRY LIST

Albania
Argentina
Australia
Bahamas
Belgium
Bolivia
Brazil
Bulgaria
Canada
Chile
Colombia
Costa Rica
Croatia
Cuba
Czech Republic
Denmark
Dominican Republic
Ecuador
El Salvador
Estonia
France
Germany
Greece
Guatemala
Haiti
Honduras
Hungary
Iceland
Ireland
Israel
Italy
Japan
Latvia
Lithuania
Luxembourg
Netherlands
New Zealand
Nicaragua
Norway
Panama
Paraguay
Peru
Philippines
Poland
Portugal
Romania
Slovakia
Slovak Republic
Slovenia
Spain
South Korea
Thailand
Trinidad & Tobago
Turkey
United Kingdom
Uruguay
Venezuela

[4] The list of eligible countries and persons is subject to legislative and other changes. The last change to the list was in 2004.

Attachment 2-A: Summary for Handling Printed Information

PRINTED	Restricted-Controlled FR	Restricted FR	Board Personnel (Sensitive PII)	Internal FR (including Non-Sensitive PII)
MP-2 Access	A list of the specific FR Staff authorized to access the information must be prepared & attached to the document(s) or centrally maintained by an authorized authority	Authorized and need to know for official business purposes and limited to as few people as possible.	Share only as provided in the Board's Policy for Handling Personally Identifiable Information policy and limited to as few people as possible	Authorized & need to know for official business purposes. PII may be shared with a FRS employee or Board contractor if authorized by the Board employee's supervisor or the employee's position
MP-2 Duplication	Not recommended. If necessary, each copy must have a unique identifier	Limited to need to know	Limited to need to know	Limited to need to know
MP-3 Labeling	"Restricted-Controlled FR" at the top of every page. Numbered using the "x of y" numbering or consecutively numbered w/ the final page labeled "last page"	"Restricted FR" at the top of every page. Numbered using the "x of y" numbering or consecutively numbered w/ the final page labeled "last page"	"Board Personnel" at the top of every page. All pages must be consecutively numbered	"Internal FR" at the top of the first page. All pages must be consecutively numbered
MP-3 Coversheet	Restricted-Controlled FR blue coversheet	Restricted FR pink coversheet	Board Personnel green coversheet	No coversheet
MP-4 Storage	1 of the following physical controls: locked desk drawer, file cabinet or office	1 of the following physical controls: locked desk drawer, file cabinet or office	1 of the following physical controls: locked desk drawer, file cabinet or office	Stored in a secure location
MP-5 Transport: Internal	Hand-delivered or placed within two sealed envelopes. The innermost envelope labeled as "Restricted-Controlled FR."	Hand-delivered or placed within a sealed envelope	Hand-delivered or placed within a sealed envelope	No special requirements
MP-5 Transport: External	Two sealed envelopes and sent via Registered Mail (or equivalent service) providing delivery tracking & confirmation. Sender must maintain a list of specific items containing Restricted-Controlled FR that were shipped	Two sealed envelopes and sent via Registered Mail (or equivalent service) providing delivery tracking & confirmation.	2 sealed envelopes & sent via Registered Mail providing delivery tracking & confirmation. Sender must maintain a list of specific items containing Sensitive PII that were shipped. When tracking is not used, the transmitter must use compensating controls to the extent possible.	Placed within a sealed envelope
MP-5 Transport: Fax	Sent via encrypted fax machine and confirm receipt	Sent via encrypted fax machine and confirm receipt	Sent via encrypted fax machine & confirm receipt. When using non-secure fax, the transmitter must use compensating controls to the extent possible.	No special requirements
MP-6 Sanitization & Disposal	Physically destroyed (e.g., paper shredders or approved secure document receptacles)	Physically destroyed (e.g., paper shredders or approved secure document receptacles)	Physically destroyed (e.g., paper shredders or approved secure document receptacles)	Physically destroyed (e.g., paper shredders or recycle bins)

Attachment 2-B: Summary for Handling Digital Information

DIGITAL	Restricted-Controlled FR	Restricted FR	Board Personnel (Sensitive PII)	Internal FR (including Non-sensitive PII)
MP-2 Access	A list of the specific FR Staff authorized to access the information must be prepared & attached to the media or centrally maintained by an authorized authority.	Authorized and need to know for official business purposes and limited to as few people as possible.	Share only as provided in the Board's Policy for Handling Personally Identifiable Information policy and limited to as few people as possible	Authorized & need to know for official business purposes. PII may be shared with a FRS employee or Board contractor if authorized by the Board employee's supervisor or the employee's position
MP-2 Duplication	Not recommended. If necessary, each copy must have a unique identifier	Limited to need to know	Limited to need to know	Limited to need to know
MP-3 Labeling	Restricted-Controlled FR label must be provided when the information is accessed or displayed. Label Removable media "Restricted-Controlled FR"	Restricted FR label must be provided when the information is accessed or displayed. Label Removable media "Restricted FR"	Removable media labeled "Board Personnel"	Removable media labeled as "Internal FR"
MP-4 Storage	1 of the following physical controls: locked desk drawer, file cabinet or office. Store only on Board or Trusted Third Party owned media that is encrypted using an encryption module that is FIPS-140-2 certified.	1 of the following physical controls: locked desk drawer, file cabinet or office. Store only on Board or Trusted Third Party owned media that is encrypted using an encryption module that is FIPS-140-2 certified.	1 of the following physical controls: locked desk drawer, file cabinet or office. Sensitive PII stored on portable media must be encrypted. Store only on Board or Trusted Third Party owned media that is encrypted using an encryption module that is FIPS-140-2 certified.	Store in a secure location. Store only on Board or FRS owned media.
MP-5 Transport: Internal	Transport on Board or Trusted Third Party owned encrypted portable media that is encrypted using an encryption module that is FIPS-140-2 certified and hand-deliver or place in 2 sealed envelopes. Innermost envelope labeled Restricted-Controlled FR	Transport on Board or Trusted Third Party owned encrypted portable media that is encrypted using an encryption module that is FIPS-140-2 certified and hand-deliver or place in a sealed envelope	Transport on Board or Third Party owned encrypted portable media that is encrypted using an encryption module that is FIPS-140-2 certified and hand-deliver or place in a sealed envelope	Transport only on Board or FRS owned media
MP-5 Transport: External	Transport on Board or Trusted Third Party owned encrypted removable media that is encrypted using an encryption module that is FIPS-140-2 certified in 2 sealed envelopes and sent via Registered Mail providing delivery tracking & confirmation. Sender must maintain a list of specific items containing Restricted-Controlled FR that were shipped	Transport on Board or Trusted Third Party owned encrypted removable media that is encrypted using an encryption module that is FIPS-140-2 certified in 2 sealed envelopes and sent via Registered Mail (or equivalent service) providing delivery tracking & confirmation.	Transport on Board or FRS owned encrypted removable media that is encrypted using an encryption module that is FIPS-140-2 certified in 2 sealed envelopes and sent via Registered Mail providing delivery tracking & confirmation. Sender must maintain a list of specific items that were shipped. When tracking is not used, the transmitter must use compensating controls to the extent possible.	Placed within a sealed envelope. Transport only on Board or FRS owned media.

MP-5 Transport: Email	Send via encrypted Lotus Notes or Board-approved encrypted email solution such as ZixMail	Send via encrypted Lotus Notes or Board-approved encrypted email solution such as ZixMail	Send via encrypted email unless the person the information concerns specifically authorizes the unencrypted email communication. Using unencrypted e-mail requires the transmitter to use compensating controls. Use Lotus Notes encryption within FRS. Outside the FRS do not use Lotus Notes, use another Board-approved encrypted email.	No special requirements
MP-6 Sanitization & Disposal	Follow the Media Sanitation and Disposal Policy & Procedures	Follow the Media Sanitation and Disposal Policy & Procedures	Follow the Media Sanitation and Disposal Policy & Procedures	Follow the Media Sanitation and Disposal Policy & Procedures

ATTACHMENT G

FOMC Policy on External Communications of Committee Participants[1]

As adopted effective June 22, 2011

PREAMBLE

The Federal Open Market Committee (FOMC) is committed to providing clear and timely information to the public about the Committee's monetary policy actions and the rationale for those decisions. Indeed, considerable evidence indicates that central bank transparency increases the effectiveness of monetary policy and enables households and businesses to make better-informed decisions.

Two-way communication with the public is a crucial element in the FOMC's monetary policy process. Committee participants have regular contacts with members of the public as part of the process of gathering the information the Committee needs to understand current economic and financial conditions. In addition, the FOMC's public accountability is strengthened by open discussion of Committee participants' views about the economic outlook as well as their judgments about the appropriate course of monetary policy.

Therefore, to reinforce the public's confidence in the transparency and integrity of the monetary policy process, the FOMC has established the following principles to govern Committee participants' contacts with members of the public. The FOMC itself maintains responsibility for ensuring that all Committee participants—that is, the members of the Federal Reserve Board and the presidents of the Federal Reserve Banks—abide by these principles.[2]

GENERAL PRINCIPLES

1. Committee participants will endeavor to enhance the public's understanding of monetary policy. They are free to explain their individual views but are expected to do so in a spirit of collegiality and to refrain from characterizing the views of other individuals on the Committee. In explaining the rationale for announced FOMC decisions, participants will draw on Committee communications and the Chairman's press conference remarks as appropriate.
2. To foster the ongoing frank exchange of views at FOMC meetings, Committee participants will refrain from publicly characterizing such discussions beyond what has been published in the minutes of each FOMC meeting.
3. To protect the independence of the FOMC's decision-making process from short-term political pressures, participants will strive to avoid any appearance of political partisanship and will be prudent in selecting venues for their speaking engagements.
4. FOMC participants will carefully safeguard all confidential information.[3] No confidential FOMC information may be released except pursuant to Committee instructions or with written authorization from the Chairman and prompt notification to the FOMC.
5. To the fullest extent possible, Committee participants will refrain from describing their personal views about monetary policy in any meeting or conversation with any individual, firm, or organization who could profit financially from acquiring that information unless those views have already been expressed in their public communications.
6. Committee participants will strive to

[1] The Committee's policy governing the external communications of Federal Reserve System staff is set forth in a separate document.

[2] This policy is fully consistent with and complements the more general policies for ethical conduct published in the *Federal Reserve Administrative Manual* (FRAM) section 2-026.1 ("Ethics—Voluntary Guide to Conduct for Senior Officials"). That section recognizes the overarching principle that senior Federal Reserve officials "have a special responsibility for maintaining the integrity, dignity, and reputation of the System" and "should scrupulously avoid conduct that might in any way tend to embarrass the System or impair the effectiveness of its operations." The policy in this document focuses specifically on external communications and is binding on all FOMC participants.

[3] The Committee's regulations concerning the designation and handling of confidential FOMC information are set forth in a separate document, "*Program for Security of FOMC Information,*" available at http://www.federalreserve.gov/monetarypolicy/files/FOMC_InformationSecurityProgram.pdf.

ensure that their contacts with members of the public do not provide any profit-making person or organization with a prestige advantage over its competitors. They will consider this principle carefully and rigorously in scheduling meetings with anyone who might benefit financially from apparently exclusive contacts with Federal Reserve officials and in considering invitations to speak at meetings that are sponsored by profit-making organizations or that are closed to the public and the media.

7. To facilitate the effectiveness of the Committee's policy deliberations and the clarity of its communications, participants observe a blackout period on monetary policy communication that begins on the Tuesday morning of the week prior to each regularly-scheduled FOMC meeting and ends at midnight Eastern Time on the Thursday following the meeting. During each blackout period, participants refrain from expressing their views about macroeconomic developments or monetary policy issues in meetings or conversations with members of the public.

PRACTICAL EXAMPLES

To assist FOMC participants in understanding the application of these principles, the Committee has considered how the principles should be applied to some common requests for public contact. For example, the following contacts would generally be consistent with the Committee's policy on external communications, as long as the participant carefully adheres to all of the principles listed above during the contact itself:

1. A speech on a monetary policy topic at a widely-attended event with press in attendance, where the event is organized by a non-profit entity and does not involve fund-raising. Such a speech might be given at an academic institution, a conference sponsored by a non-profit organization, or a meeting sponsored by a civic or trade association (such as a chamber of commerce or a state or national bankers' association).
2. An interview with the press regarding the participant's personal views on monetary policy issues.
3. A private meeting with members of the public—such as bankers, community representatives, industry representatives, or labor representatives—to collect information about the economy without disseminating any information about the participant's personal views on monetary policy unless those views have already been expressed in their public communications. Whenever practical, a public information officer or other Federal Reserve staff should be present at such a meeting.

In contrast, the following contacts would not be consistent with the principles set out above:

1. Disclosure in any setting of confidential FOMC information.
2. Disclosure or characterization in any setting of the views that others expressed at an FOMC meeting.
3. A prediction about Committee action in advance of the Committee announcement of its decision.
4. A private meeting with selected clients of a regulated entity or financial firm to discuss monetary policy.

Of course, the foregoing examples are not intended to serve as an exhaustive list, and hence good judgment will be essential in applying these principles.

ATTACHMENT H

FOMC Policy on External Communications of Federal Reserve System Staff[1]

As amended effective June 19, 2012

PREAMBLE

In the course of making monetary policy decisions, the Federal Open Market Committee (FOMC) makes extensive use of background materials prepared by the staff of the Federal Reserve System, and senior staff give regular briefings at FOMC meetings. In addition, staff are directly involved in the implementation and communication of the Committee's policy decisions.

Federal Reserve System staff have contacts with members of the public in the process of gathering information about current economic and financial conditions. In addition, staff synthesize that information using a variety of analytical methods and statistical tools, and the continual refinement of these methods and tools is facilitated by ongoing interactions with academic researchers, staff at foreign central banks, and other outside analysts. Finally, staff play a significant role in helping the public understand the rationale for FOMC decisions. The principles described below recognize the importance of these activities for monetary policymaking and are not intended to inhibit the staff from conducting or broadly disseminating economic research or from carrying out other appropriate communications with members of the public.

To reinforce the public's confidence in the transparency and integrity of the monetary policy process, the FOMC has established the following principles to govern the public contacts of Federal Reserve System staff who have access to confidential FOMC information.[2] The FOMC maintains responsibility for ensuring that all System staff with such access abide by these principles. Specifically, the President of each Federal Reserve Bank is responsible for ensuring the confidentiality of FOMC information at that Bank and for the conduct and discretion of that Bank's staff with regard to the use of that information, and the Chairman fulfills this role for Board staff.

GENERAL PRINCIPLES

1. Federal Reserve staff play a significant role in enhancing public understanding of the FOMC's actions, thereby promoting the effectiveness of monetary policy. In all communications with the public regarding monetary policy issues, members of the staff should refrain from publicly expressing their own personal opinions or predictions regarding prospective monetary policy decisions. In explaining the rationale for announced FOMC decisions, staff should draw on Committee communications, the Chairman's press conference remarks, and other published materials as appropriate. Whenever staff make public comments on monetary policy, they should clearly indicate that those comments are solely their own responsibility and should not be interpreted as necessarily representing the views of the FOMC, its principals, or any other person associated with the Federal Reserve System.
2. To foster the ongoing frank exchange of views at FOMC meetings, staff will refrain from characterizing such discussions—apart from what has been published in the minutes of each FOMC meeting—in any contact with an individual, firm, or organization outside of the Federal Reserve System.
3. To protect the independence of the FOMC's decision-making process from short-term political pressures, members of the staff of the Board and Reserve Banks will follow their respective codes of conduct regarding partisan political activities and strive to avoid any appearance of political partisanship when discussing economic or policy issues with the public.
4. Staff will carefully safeguard all con-

[1] This document complements the FOMC policy regarding the external communication of Committee participants, which is set forth in a separate document.

[2] This policy is fully consistent with and complements the rules for ethical conduct prescribed for the staff of the Board of Governors and for staff at each Federal Reserve Bank.

fidential FOMC information.[3] No confidential information may be released except pursuant to Committee instructions or with written authorization from the Chairman and prompt notification to the Committee.

5. Unless the information has been made widely available to the public, Federal Reserve staff members will refrain from disseminating information outside the Federal Reserve System, such as information about economic and financial conditions or about the methods and tools that are currently being used to assess those conditions, that might allow an individual, firm, or organization to profit financially.

6. Staff will strive to ensure that their contacts with members of the public do not provide any profit-making person, firm, or organization with a prestige advantage over its competitors. They will consider this principle carefully and rigorously in considering invitations to speak at meetings sponsored by profit-making organizations and in scheduling meetings with anyone who might benefit financially from apparently-exclusive contacts with Federal Reserve staff.

7. To facilitate the effectiveness of the Committee's policy deliberations and the clarity of its communications, staff will observe the blackout period on monetary policy communication that begins at midnight Eastern time seven days prior to each regularly-scheduled FOMC meeting and ends at midnight Eastern Time on the next day after the meeting. During each blackout period, staff will refrain from expressing their views or providing analysis to members of the public about macroeconomic or financial developments or about current or prospective monetary policy issues unless that information has already been cleared for publication and made widely available to the public prior to the blackout period. Staff will be able to carry out their responsibilities for public dissemination of published Federal Reserve data and System surveys and reports, including answering technical questions specific to a data release.

8. In carrying out their official responsibilities, Federal Reserve staff engage in certain closely-held communications with other parts of the U.S. government, with foreign central banks and governments, and with international organizations such as the International Monetary Fund and the Bank for International Settlements. In communicating with individuals from such institutions, staff may exchange views on current economic and financial conditions or discuss policy-related matters of interest to the Federal Reserve, including non-public information, and such communications are not subject to the blackout period described above. In all such interactions, however, no confidential FOMC information may be released except pursuant to Committee instructions or with written authorization from the Chairman and prompt notification to the Committee.

PRACTICAL EXAMPLES

To assist Federal Reserve System staff in understanding the application of these principles, the FOMC has considered how the principles should be applied to some common requests for public contact. For example, the following contacts would generally be consistent with the Committee's policy on external communications, as long as the staff member carefully adheres to all of the principles listed above during the contact itself:

1. A presentation at a widely-attended meeting, where the event is organized by a non-profit entity and does not involve fund-raising. Such a meeting might be sponsored by an academic institution, non-profit organization, or civic or trade association (such as a chamber of commerce or a state or national bankers' association).
2. A private meeting with members of the public—such as bankers, community

[3] The Committee's regulations concerning the designation and handling of confidential FOMC information are set forth in a separate document, *"Program for Security of FOMC Information,"* available at http://www.federalreserve.gov/monetarypolicy/files/FOMC_InformationSecurityProgram.pdf.

representatives, industry representatives, or labor representatives—to collect information about current economic and financial conditions, without disseminating any information that is not widely available to the public. Whenever practical, at least two Federal Reserve staff should be present at such a meeting.

3. A working paper, presentation, or publication that evaluates the effectiveness of monetary policy actions taken in the past.

4. A discussion between Federal Reserve and Treasury staff (including during the blackout period) regarding recent economic and financial developments in a foreign economy, how to interpret them, and their implications for future developments.

In contrast, the following contacts would *not* be consistent with the principles set out above:

1. Disclosure of confidential FOMC information.

2. Disclosure or characterization of the views expressed at an FOMC meeting.

3. Disclosure of an FOMC participant's personal views on monetary policy that have not previously been communicated to the public.

4. Public communications in which a Federal Reserve staff member expresses personal opinions about prospective monetary policy decisions.

5. A prediction to members of the public about Committee action prior to the Committee's announcement of such decisions.

6. A private meeting with selected clients of a regulated entity or financial firm to discuss monetary policy.

Of course, the foregoing examples are not intended to serve as an exhaustive list, and hence good judgment will be essential in applying these principles. Moreover, whenever staff are unsure about whether specific contacts with the public would be appropriate, they should consult in advance with the appropriate staff person or with the head of their respective institution—namely, the Chairman in the case of staff at the Board of Governors, and the President in the case of staff at a Federal Reserve Bank.

ATTACHMENT I

(b)(5)

[redacted]

AUTHORIZED FOR RELEASE

(b)(5)

[redacted]

Background on FOMC Minutes Production

(b)(6)

[redacted]

MAY 5, 2015

FEDERAL OPEN MARKET COMMITTEE

- Membership
  - Seven members of Board of Governors
  - President of FRBNY
  - On rotating basis four of other eleven presidents
- All seven Board members and twelve Reserve Bank presidents participate in FOMC meetings, but only members of the Committee can vote

FOMC PROCEDURES

- FOMC meets eight times per year in Washington
  - Additional meetings by conference call as necessary
- FOMC meetings
  - Staff briefings on financial markets, economic outlook, monetary policy alternatives
  - FOMC participants discuss economic situation and outlook
    - Reserve Bank presidents report on economic conditions in their district
- Participants discuss monetary policy alternatives
- Committee members vote on FOMC statement and directive on open market operations to New York Fed

MINUTES STRUCTURE

- "Front & Back" — green material
- Historical Minutes - orange (staff documents)
  - Developments in Financial Markets and the Federal Reserve's Balance Sheet
  - Staff Review of the Economic Situation 1 Teal Book A (collective wisdom of Board & FRB-NY
    - Domestic
    - International
  - Staff Review of the Financial Situation 2 Teal Book B Market Alternatives
    - Domestic
    - International 3 Memos
  - Staff Economic Outlook
- Policy Minutes - Blue Text ✓
  - Participants' Views on Current Conditions and the Economic Outlook
  - Committee Policy Action
- Special Topics - Purple
  - Potential Effects of a Large-Scale Asset Purchase Program
  - Consensus Forecast Experiment

MINUTES PRODUCTION

Summary of Economic Projection pg. 12

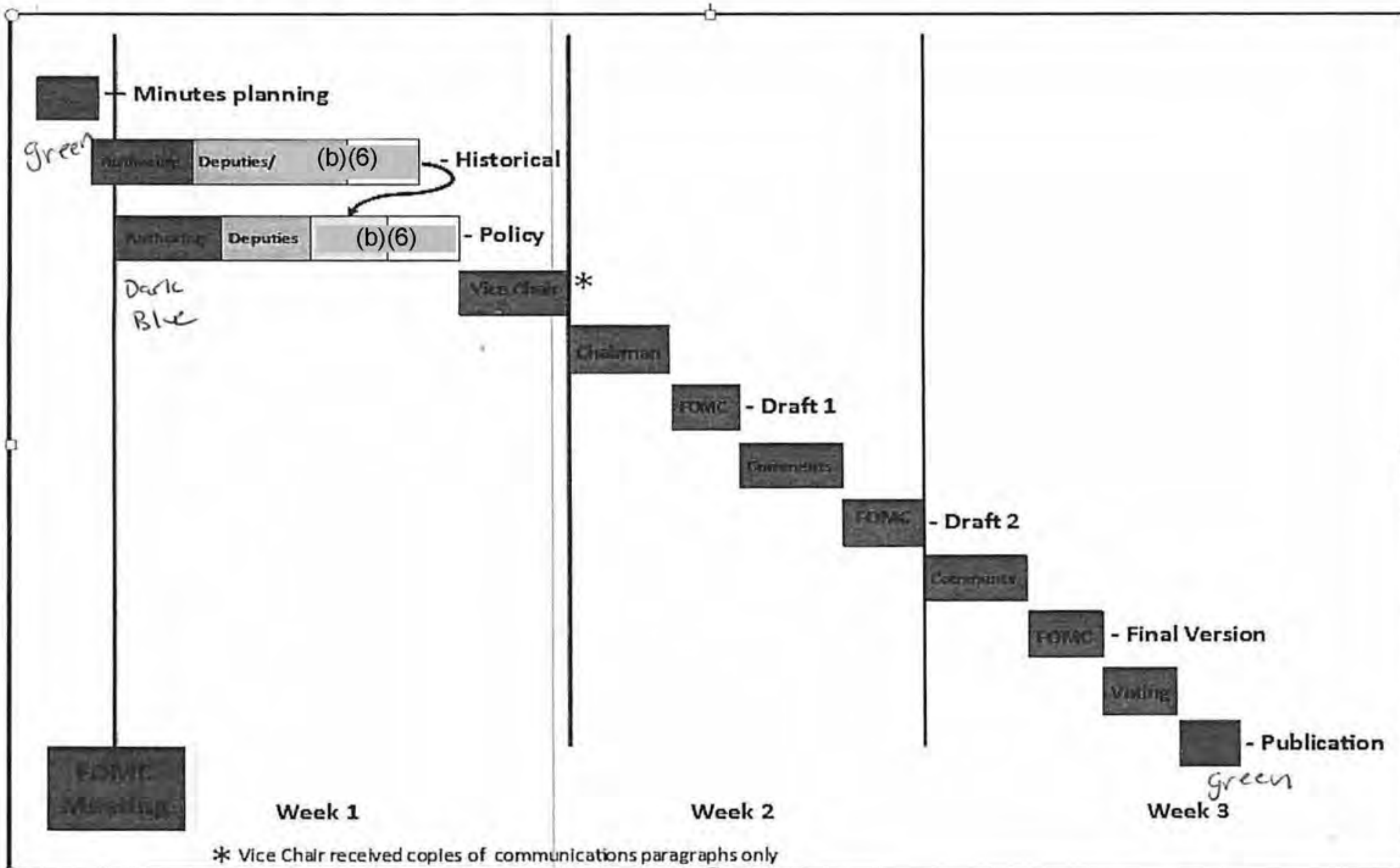
Minutes Roles

- "Front & Back": (b)(6)
- Historical Minutes
  - International sections: IF Division staff: (b)(6)
  - Domestic economic section: R&S Division staff: (b)(6)
  - Domestic financial section: MA Division staff: (b)(6)
  - "Lead" author rotates between R&S and MA, attends relevant FOMC meeting
- Policy Minutes: (b)(6)
- Special Topics: initial drafts usually prepared by staff subject matter expert
  - Potential Effects of a Large-Scale Asset Purchase Program
  - Consensus Forecast Experiment
- Economic Editing Review: (b)(6)
- MA/IF Deputy Reviewers: (b)(6)
- FOMC Secretariat facilitation: (b)(6)
- FOMC Assistant Secretary & coordination: (b)(6)
- FOMC Deputy Secretary & oversight: (b)(6)
- FOMC Secretary & primary oversight: (b)(6)

SEP Roles

- SEP: (b)(6)
- SEP Checker: (b)(6)
- SEP Research Assistant: (b)(6)
- R&S Deputy Reviewer: (b)(6)

MINUTES PRODUCTION TIMELINE
SEPTEMBER 2012



Minutes and SEP Access Overview

- Board staff authors
- Board staff content reviewers
- Economic editing staff
- Secretariat staff
- SDS readers: Governors, Presidents, Board & Banks staff members
- Potentially additional Bank reviewers, via paper
- Public-facing staff (Office of Board Members)

IT SYSTEMS

AUTHORIZED FOR RELEASE

MINUTES AND SEP PROCESS SUPPORTING DOCUMENTS

- September 2012 minutes and SEP
- 2005 Bulletin article
- August 28, 2012, minutes planning agenda
- Timeline for minutes (and SEP)
- Calendar view of minutes timeline
- Detailed spreadsheet for minutes (and SEP) process: names, dates, file names

Minutes of the Federal Open Market Committee
September 12–13, 2012

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Wednesday, September 12, 2012, at 10:30 a.m. and continued on Thursday, September 13, 2012, at 8:30 a.m.

PRESENT:
Ben Bernanke, Chairman
William C. Dudley, Vice Chairman
Elizabeth Duke
Jeffrey M. Lacker
Dennis P. Lockhart
Sandra Pianalto
Jerome H. Powell
Sarah Bloom Raskin
Jeremy C. Stein
Daniel K. Tarullo
John C. Williams
Janet L. Yellen

James Bullard, Christine Cumming, Charles L. Evans, Esther L. George, and Eric Rosengren, Alternate Members of the Federal Open Market Committee

Richard W. Fisher, Narayana Kocherlakota, and Charles I. Plosser, Presidents of the Federal Reserve Banks of Dallas, Minneapolis, and Philadelphia, respectively

William B. English, Secretary and Economist
Deborah J. Danker, Deputy Secretary
Matthew M. Luecke, Assistant Secretary
David W. Skidmore, Assistant Secretary
Michelle A. Smith, Assistant Secretary
Scott G. Alvarez, General Counsel
Thomas C. Baxter, Deputy General Counsel
Steven B. Kamin, Economist
David W. Wilcox, Economist

David Altig, Thomas A. Connors, Michael P. Leahy, William Nelson, David Reifschneider, Glenn D. Rudebusch, William Wascher, and John A. Weinberg, Associate Economists

Simon Potter, Manager, System Open Market Account

Nellie Liang, Director, Office of Financial Stability Policy and Research, Board of Governors

Jon W. Faust, Special Adviser to the Board, Office of Board Members, Board of Governors

James A. Clouse, Deputy Director, Division of Monetary Affairs, Board of Governors; Maryann F. Hunter, Deputy Director, Division of Banking Supervision and Regulation, Board of Governors

Andreas Lehnert,[1] Deputy Director, Office of Financial Stability Policy and Research, Board of Governors

Linda Robertson, Assistant to the Board, Office of Board Members, Board of Governors

Seth B. Carpenter, Senior Associate Director, Division of Monetary Affairs, Board of Governors

Thomas Laubach, Senior Adviser, Division of Research and Statistics, Board of Governors; Ellen E. Meade and Joyce K. Zickler, Senior Advisers, Division of Monetary Affairs, Board of Governors

Brian J. Gross,[2] Special Assistant to the Board, Office of Board Members, Board of Governors

Eric M. Engen, Michael G. Palumbo, and Wayne Passmore, Associate Directors, Division of Research and Statistics, Board of Governors

Fabio M. Natalucci, Deputy Associate Director, Division of Monetary Affairs, Board of Governors

Edward Nelson, Section Chief, Division of Monetary Affairs, Board of Governors

Jeremy B. Rudd, Senior Economist, Division of Research and Statistics, Board of Governors

Kelly J. Dubbert, First Vice President, Federal Reserve Bank of Kansas City

[1] Attended Wednesday's session only.
[2] Attended Thursday's session only.

[redacted]

[redacted]

Tuesday & Wed.

Green

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[redacted]

[redacted]

[redacted]

[redacted] MA

[redacted]

[redacted] International Affairs

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Loretta J. Mester, Harvey Rosenblum, and Daniel G. Sullivan, Executive Vice Presidents, Federal Reserve Banks of Philadelphia, Dallas, and Chicago, respectively

Cletus C. Coughlin, Troy Davig, Mark E. Schweitzer, and Kei-Mu Yi, Senior Vice Presidents, Federal Reserve Banks of St. Louis, Kansas City, Cleveland, and Minneapolis, respectively

Lorie K. Logan, Jonathan P. McCarthy, Giovanni Olivei, and Nathaniel Wuerffel,[3] Vice Presidents, Federal Reserve Banks of New York, New York, Boston, and New York, respectively

Michelle Ezer,[4] Markets Officer, Federal Reserve Bank of New York

[3] Attended after the discussion on potential effects of a large-scale asset purchase program.

[4] Attended the discussion on potential effects of a large-scale asset purchase program.

Potential Effects of a Large-Scale Asset Purchase Program

The staff presented an analysis of various aspects of possible large-scale asset purchase programs, including a comparison of flow-based purchase programs to programs of fixed size. The presentation reviewed the modeling approach used by the staff in estimating the financial and macroeconomic effects of such purchases. While significant uncertainty surrounds such estimates, the presentation indicated that asset purchases could be effective in fostering more rapid progress toward the Committee's objectives. The staff noted that, for a flow-based program, the public's understanding of the conditions under which the Committee would end purchases would shape expectations of the magnitude of the Federal Reserve's holdings of longer-term securities, and thus also influence the financial and economic effects of such a program. The staff also discussed the potential implications of additional asset purchases for the evolution of the Federal Reserve's balance sheet and income. The presentation noted that significant additional asset purchases should not adversely affect the ability of the Committee to tighten the stance of policy when doing so becomes appropriate. In their discussion of the staff presentation, a few participants noted the uncertainty surrounding estimates of the effects of large-scale asset purchases or the need for additional work regarding the implications of such purchases for the normalization of policy.

Developments in Financial Markets and the Federal Reserve's Balance Sheet

The Manager of the System Open Market Account (SOMA) reported on developments in domestic and foreign financial markets during the period since the Federal Open Market Committee (FOMC) met on July 31–August 1, 2012. He also reported on System open market operations, including the ongoing reinvestment into agency-guaranteed mortgage-backed securities (MBS) of principal payments received on SOMA holdings of agency debt and agency-guaranteed MBS as well as the operations related to the maturity extension program authorized at the June 19–20, 2012, FOMC meeting. By unanimous vote, the Committee ratified the Desk's domestic transactions over the intermeeting period. There were no intervention operations in foreign currencies for the System's account over the intermeeting period.

Staff Review of the Economic Situation

The information reviewed at the September 12–13 meeting suggested that economic activity continued to increase at a moderate pace in recent months. Employment rose slowly, and the unemployment rate was still high. Consumer price inflation stayed subdued, while measures of long-run inflation expectations remained stable.

Private nonfarm employment increased in July and August at only a slightly faster pace than in the second quarter, and the rate of decline in government employment eased somewhat. The unemployment rate was 8.1 percent in August, just a bit lower than its average during the first half of the year, and the labor force participation rate edged down further. The share of workers employed part time for economic reasons remained large, and the rate of long-duration unemployment continued to be high. Indicators of job openings and firms' hiring plans were little changed, on balance, and initial claims for unemployment insurance were essentially flat over the intermeeting period.

Manufacturing production increased at a faster pace in July than in the second quarter, and the rate of manufacturing capacity utilization rose slightly. However, automakers' schedules indicated that the pace of motor vehicle assemblies would be somewhat lower in the coming months than it was in July, and broader indicators of manufacturing activity, such as the diffusion indexes of new orders from the national and regional manufacturing surveys, generally remained quite muted

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Blue

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Orange

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in recent months at levels consistent with only meager gains in factory output in the near term.

Following a couple of months when real personal consumption expenditures (PCE) were roughly flat, spending increased in July, and the gains were fairly widespread across categories of consumer goods and services. Incoming data on factors that tend to support household spending were somewhat mixed. Real disposable incomes increased solidly in July, boosted in part by lower energy prices. The continued rise in house values through July, and the increase in equity prices during the intermeeting period, suggested that households' net worth may have improved a little in recent months. However, consumer sentiment remained more downbeat in August than earlier in the year.

Housing market conditions continued to improve, but construction activity was still at a low level, reflecting the restraint imposed by the substantial inventory of foreclosed and distressed properties and by tight credit standards for mortgage loans. Starts of new single-family homes declined in July, but permits increased, which pointed to further gains in single-family construction in the coming months. Both starts and permits for new multifamily units rose in July. Home prices increased for the sixth consecutive month in July, and sales of both new and existing homes also rose.

Real business expenditures on equipment and software appeared to be decelerating. Both nominal shipments and new orders for nondefense capital goods excluding aircraft declined in July, and the backlog of unfilled orders decreased. Other forward-looking indicators, such as downbeat readings from surveys of business conditions and capital spending plans, also pointed toward only muted increases in real expenditures for business equipment in the near term. Nominal business spending for new nonresidential construction declined in July after only edging up in the second quarter. Inventories in most industries looked to be roughly aligned with sales in recent months.

Real federal government purchases appeared to decrease further, as data for nominal federal spending in July pointed to continued declines in real defense expenditures. Real state and local government purchases also appeared to still be trending down. State and local government payrolls contracted in July and August, although at a somewhat slower rate than in the second quarter, and nominal construction spending by these governments decreased slightly in July.

The U.S. international trade deficit was about unchanged in July after narrowing significantly in June. Exports declined in July, as decreases in the exports of industrial supplies, automotive products, and consumer goods were only partially offset by greater exports of agricultural products. Imports also declined in July, reflecting lower imports of capital goods and petroleum products and somewhat higher imports of automotive products. The trade data for July pointed toward real net exports having a roughly neutral effect on the growth of U.S. real gross domestic product (GDP) in the third quarter after they made a positive contribution to the increase in real GDP in the second quarter.

Overall U.S. consumer prices, as measured by the PCE price index, were flat in July. Consumer food prices were essentially unchanged, but the substantial increases in spot and futures prices of farm commodities in recent months, reflecting the effects of the drought in the Midwest, pointed toward some temporary upward pressures on retail food prices later this year. Consumer energy prices declined slightly in July, but survey data indicated that retail gasoline prices rose in August. Consumer prices excluding food and energy also were flat in July. Near-term inflation expectations from the Thomson Reuters/University of Michigan Surveys of Consumers increased somewhat in August, while longer-term inflation expectations in the survey edged up but remained within the narrow range that they have occupied for many years. Long-run inflation expectations from the Federal Reserve Bank of Philadelphia Survey of Professional Forecasters continued to be stable in the third quarter.

Measures of labor compensation indicated that increases in nominal wages remained modest. The rise in compensation per hour in the nonfarm business sector was muted over the year ending in the second quarter, and with small gains in productivity, unit labor costs rose only slightly. The employment cost index increased a little more slowly than the measure of compensation per hour over the same period. More recently, the gains in average hourly earnings for all employees in July and August were small.

Overall foreign economic growth appeared to be subdued in the third quarter after slowing in the second quarter. In the euro area, policy developments contributed to an improvement in financial conditions; recent indicators pointed to further decreases in production, however, and both business and consumer confidence continued to decline. Indicators of activity in the emerging market economies generally weakened. In

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China, export growth slowed, while retail sales and investment spending changed little. The rate of economic growth rose in Brazil but was still sluggish, and increases in economic activity in Mexico were below the faster pace seen earlier in the year. Consistent with the slowing in foreign economic growth, readings on foreign inflation continued to moderate.

Staff Review of the Financial Situation

Sentiment in financial markets improved somewhat since the time of the August FOMC meeting. Investors' concerns about the situation in Europe seemed to ease somewhat, and market participants also appeared to have increased their expectations of additional monetary policy accommodation.

On balance, the nominal Treasury yield curve steepened over the intermeeting period, with yields on longer-dated Treasury securities rising notably. Following the August FOMC statement, Treasury yields moved up, reportedly in part because investors had factored in some probability that the anticipated liftoff date for the federal funds rate in the forward-guidance language would be moved back at that meeting. Treasury yields subsequently rose further as concerns about the situation in the euro area moderated. Later in the period, Treasury yields retraced some of their earlier gains as market participants' expectations of additional policy action increased following the release of the minutes of the August FOMC meeting, the Chairman's speech at the economic symposium in Jackson Hole, and the weaker-than-expected August employment report. On net, the expected path of the federal funds rate derived from overnight index swap rates was little changed. Indicators of inflation expectations derived from nominal and inflation-protected Treasury securities edged up over the period but stayed in the ranges observed over recent quarters.

Conditions in unsecured short-term dollar funding markets remained stable over the intermeeting period. In secured funding markets, conditions were also little changed.

In the September Senior Credit Officer Opinion Survey on Dealer Financing Terms, respondents reported no significant changes in credit terms for important classes of counterparties over the past three months, although a few noted a slight easing in terms for some clients. The use of leverage by hedge funds was reported to have remained basically unchanged. However, respondents noted greater demand for funding of agency and non-agency residential MBS.

Broad price indexes for U.S. equities rose moderately, on net, over the intermeeting period, prompted by generally better-than-expected readings on economic activity released early in the period, somewhat reduced concerns about the situation in Europe, and some additional anticipation of monetary policy easing later in the period. Option-implied volatility on the S&P 500 index fell in early August to levels not seen since the middle of 2007; it subsequently partially retraced. Equity prices for large domestic banks rose about in line with the broad equity price indexes, and credit default swap (CDS) spreads for the largest bank holding companies continued to move down.

Yields on investment-grade corporate bonds were little changed at near-record low levels over the intermeeting period, while yields on speculative-grade corporate bonds edged down. The spread of yields on corporate bonds over those on comparable-maturity Treasury securities narrowed. Net debt issuance by nonfinancial firms continued to be strong over the period. Investment- and speculative-grade bond issuance increased in August from an already robust pace in preceding months, and commercial and industrial (C&I) loans rose further. In the syndicated leveraged loan market, gross issuance of institutional loans continued to be solid in July and August. Issuance of collateralized loan obligations remained on pace to post its strongest year since 2007. The rate of gross public equity issuance by nonfinancial firms increased slightly in August but was still at a subdued level.

Financial conditions in the commercial real estate (CRE) market were still somewhat strained against a backdrop of weak fundamentals and tight underwriting standards. Nevertheless, issuance of commercial mortgage-backed securities continued at a solid pace over the intermeeting period.

Mortgage rates remained at very low levels over the intermeeting period. Refinancing activity increased but was still restrained by tight underwriting conditions, capacity constraints at mortgage originators, and low levels of home equity. Nonrevolving consumer credit continued to expand briskly in June, largely due to robust growth in student loans originated by the federal government, while revolving credit remained subdued. Delinquency rates for consumer credit were still low, mostly reflecting a shift in lending toward higher-credit-quality borrowers.

Gross issuance of long-term municipal bonds picked up in August from the subdued pace in July, but net issuance continued to decline. CDS spreads for debt

China, export growth slowed, while retail sales and investment spending changed little. The rate of economic growth rose in Brazil but was still sluggish, and increases in economic activity in Mexico were below the faster pace seen earlier in the year. Consistent with the slowing in foreign economic growth, readings on foreign inflation continued to moderate.

Staff Review of the Financial Situation

Sentiment in financial markets improved somewhat since the time of the August FOMC meeting. Investors' concerns about the situation in Europe seemed to ease somewhat, and market participants also appeared to have increased their expectations of additional monetary policy accommodation.

On balance, the nominal Treasury yield curve steepened over the intermeeting period, with yields on longer-dated Treasury securities rising notably. Following the August FOMC statement, Treasury yields moved up, reportedly in part because investors had factored in some probability that the anticipated liftoff date for the federal funds rate in the forward-guidance language would be moved back at that meeting. Treasury yields subsequently rose further as concerns about the situation in the euro area moderated. Later in the period, Treasury yields retraced some of their earlier gains as market participants' expectations of additional policy action increased following the release of the minutes of the August FOMC meeting, the Chairman's speech at the economic symposium in Jackson Hole, and the weaker-than-expected August employment report. On net, the expected path of the federal funds rate derived from overnight index swap rates was little changed. Indicators of inflation expectations derived from nominal and inflation-protected Treasury securities edged up over the period but stayed in the ranges observed over recent quarters.

Conditions in unsecured short-term dollar funding markets remained stable over the intermeeting period. In secured funding markets, conditions were also little changed.

In the September Senior Credit Officer Opinion Survey on Dealer Financing Terms, respondents reported no significant changes in credit terms for important classes of counterparties over the past three months, although a few noted a slight easing in terms for some clients. The use of leverage by hedge funds was reported to have remained basically unchanged. However, respondents noted greater demand for funding of agency and non-agency residential MBS.

Broad price indexes for U.S. equities rose moderately, on net, over the intermeeting period, prompted by generally better-than-expected readings on economic activity released early in the period, somewhat reduced concerns about the situation in Europe, and some additional anticipation of monetary policy easing later in the period. Option-implied volatility on the S&P 500 index fell in early August to levels not seen since the middle of 2007; it subsequently partially retraced. Equity prices for large domestic banks rose about in line with the broad equity price indexes, and credit default swap (CDS) spreads for the largest bank holding companies continued to move down.

Yields on investment-grade corporate bonds were little changed at near-record low levels over the intermeeting period, while yields on speculative-grade corporate bonds edged down. The spread of yields on corporate bonds over those on comparable-maturity Treasury securities narrowed. Net debt issuance by nonfinancial firms continued to be strong over the period. Investment- and speculative-grade bond issuance increased in August from an already robust pace in preceding months, and commercial and industrial (C&I) loans rose further. In the syndicated leveraged loan market, gross issuance of institutional loans continued to be solid in July and August. Issuance of collateralized loan obligations remained on pace to post its strongest year since 2007. The rate of gross public equity issuance by nonfinancial firms increased slightly in August but was still at a subdued level.

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Gross issuance of long-term municipal bonds picked up in August from the subdued pace in July, but net issuance continued to decline. CDS spreads for debt

issued by state governments moved lower over the intermeeting period, and the ratio of yields on long-term general obligation municipal bonds to yields on comparable-maturity Treasury securities decreased, on balance.

Bank credit continued to expand at a moderate pace over the intermeeting period, as growth in C&I loans remained brisk while CRE and home equity loans both trended down further. The August Survey of Terms of Business Lending indicated that overall interest-rate spreads on C&I loans were little changed; spreads on loans drawn on recently established commitments narrowed materially, although they remained wide.

M2 growth was rapid in July, likely reflecting investors' heightened demand for safe and liquid assets amid concerns about the situation in Europe, but it slowed to a moderate pace in August as those concerns eased somewhat. The monetary base rose in July and August as reserve balances and currency expanded.

Sentiment improved in foreign financial markets as the European Central Bank (ECB) outlined a plan to make additional sovereign bond purchases in conjunction with the European Financial Stability Facility and the European Stability Mechanism. Spreads of shorter-term yields on peripheral euro-area sovereign bonds over those on comparable-maturity German bunds declined substantially over the period. The staff's broad nominal index of the foreign exchange value of the dollar declined and benchmark sovereign yields in the major advanced foreign economies increased as safe-haven demands eased with the lessening of concerns about the European situation. Most global benchmark indexes for equity prices moved up, and the equity prices of European banks rose sharply. Funding conditions for euro-area banks improved, although these conditions remained fragile, and draws on the Federal Reserve's liquidity swap facility with the ECB fell.

The staff also reported on potential risks to financial stability, including those owing to the developments in Europe and to the current environment of low interest rates. Although the support for economic activity provided by low interest rates enhances financial stability, low interest rates also could eventually contribute to excessive borrowing or risk-taking and possibly leave some aspects of the financial system vulnerable to a future rise in interest rates. The staff surveyed a wide range of asset markets and financial institutions for signs of excessive valuations, leverage, or risk-taking that could pose systemic risks. Valuations for broad asset classes did not appear stretched, or supported by excessive leverage. The staff also did not find evidence that excessive risk-taking was widespread, although such behavior had appeared in a few smaller and less liquid markets.

Staff Economic Outlook

In the economic projection prepared by the staff for the September FOMC meeting, the forecast for real GDP growth in the near term was broadly similar, on balance, to the previous projection. The near-term forecast incorporated a larger negative effect of the drought on farm output in the second half of this year than the staff previously anticipated, but this effect was mostly offset by the staff's expectation of a smaller drag from net exports. The staff's medium-term projection for real GDP growth, which was conditioned on the assumption of no changes in monetary policy, was revised up a little, mostly reflecting a slight improvement in the outlook for the European situation and a somewhat higher projected path for equity prices. Nevertheless, with fiscal policy assumed to be tighter next year than this year, the staff expected that increases in real GDP would not materially exceed the growth of potential output in 2013. In 2014, economic activity was projected to accelerate gradually, supported by an easing in fiscal policy restraint, increases in consumer and business confidence, further improvements in financial conditions and credit availability, and accommodative monetary policy. The expansion in economic activity was expected to narrow the significant margin of slack in labor and product markets only slowly over the projection period, and the unemployment rate was anticipated to still be elevated at the end of 2014.

The staff's near-term forecast for inflation was revised up from the projection prepared for the August FOMC meeting, reflecting increases in consumer energy prices that were greater than anticipated. However, the staff's projection for inflation over the medium term was little changed. With crude oil prices expected to gradually decline from their current levels, the boost to retail food prices from the drought anticipated to be only temporary and comparatively small, long-run inflation expectations assumed to remain stable, and substantial resource slack persisting over the projection period, the staff continued to forecast that inflation would be subdued through 2014.

The staff viewed the uncertainty around the forecast for economic activity as elevated and the risks skewed to the downside, largely reflecting concerns about the situation in Europe and the possibility of a more severe

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The staff viewed the uncertainty around the forecast for economic activity as elevated and the risks skewed to the downside, largely reflecting concerns about the situation in Europe and the possibility of a more severe

tightening in U.S. fiscal policy than anticipated. Although the staff saw the outlook for inflation as uncertain, the risks were viewed as balanced and not unusually high.

Participants' Views on Current Conditions and the Economic Outlook

In conjunction with this FOMC meeting, meeting participants—the 7 members of the Board of Governors and the presidents of the 12 Federal Reserve Banks, all of whom participate in the deliberations of the FOMC—submitted their assessments of real output growth, the unemployment rate, inflation, and the target federal funds rate for each year from 2012 through 2015 and over the longer run, under each participants' judgment of appropriate monetary policy. The longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge, over time, under appropriate monetary policy and in the absence of further shocks to the economy. These economic projections and policy assessments are described in the Summary of Economic Projections, which is attached as an addendum to these minutes.

In their discussion of the economic situation and outlook, meeting participants regarded the information received during the intermeeting period as indicating that economic activity had continued to expand at a moderate pace in recent months. However, recent gains in employment were small and the unemployment rate remained high. Although consumer spending had continued to advance, growth in business fixed investment appeared to have slowed. The housing sector showed some further signs of improvement, albeit from a depressed level. Consumer price inflation had been subdued despite recent increases in the prices of some key commodities, and longer-term inflation expectations had remained stable.

Regarding the economic outlook, participants generally agreed that the pace of the economic recovery would likely remain moderate over coming quarters but would pick up over the 2013–15 period. In the near term, the drought in the Midwest was expected to weigh on economic growth. Moreover, participants observed that the pace of economic recovery would likely continue to be held down for some time by persistent headwinds, including continued weakness in the housing market, ongoing household sector deleveraging, still-tight credit conditions for some households and businesses, and fiscal consolidation at all levels of government. Many participants also noted that a high level of uncertainty regarding the European fiscal and banking crisis and the outlook for U.S. fiscal and regulatory policies was weighing on confidence, thereby restraining household and business spending. However, others questioned the role of uncertainty about policy as a factor constraining aggregate demand. In addition, participants still saw significant downside risks to the outlook for economic growth. Prominent among these risks were a possible intensification of strains in the euro zone, with potential spillovers to U.S. financial markets and institutions and thus to the broader U.S. economy; a larger-than-expected U.S. fiscal tightening; and the possibility of a further slowdown in global economic growth. A few participants, however, mentioned the possibility that economic growth could be more rapid than currently anticipated, particularly if major sources of uncertainty were resolved favorably or if faster-than-expected advances in the housing sector led to improvements in household balance sheets, increased confidence, and easier credit conditions. Participants' forecasts for economic activity, which in most cases were conditioned on an assumption of additional, near-term monetary policy accommodation, were also associated with an outlook for the unemployment rate to remain close to recent levels through 2012 and then to decline gradually toward levels judged to be consistent with the Committee's mandate.

In the household sector, incoming data on retail sales were somewhat stronger than expected. Participants noted, however, that households were still in the process of deleveraging, confidence was low, and consumers appeared to remain particularly pessimistic about the prospects for the future, raising doubts that the somewhat stronger pace of spending would persist. Although the level of activity in the housing sector remained low, the somewhat faster pace of home sales and construction provided some encouraging signs of improvement. A number of participants also observed that house prices were rising. It was noted that such increases, coupled with historically low mortgage rates, could lead to a stronger upturn in housing activity, although constraints on the capacity for loan origination and still-tight credit terms for some borrowers continued to weigh on mortgage lending.

Business contacts in many parts of the country were reported to be highly uncertain about the outlook for the economy and for fiscal and regulatory policies. Although firms' balance sheets were generally strong, these uncertainties had led them to be particularly cautious and to remain reluctant to hire or expand capacity. Reports on manufacturing activity were mixed, with production related to autos and housing the most not-

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Participants generally expected that fiscal policy would continue to be a drag on economic activity over coming quarters. In addition to ongoing weakness in spending at the federal, state, and local government levels, uncertainties about tax and spending policies reportedly were restraining business decisionmaking. Participants also noted that if an agreement was not reached to tackle the expiring tax cuts and scheduled spending reductions, a sharp consolidation of fiscal policy would take place at the beginning of 2013.

The available indicators pointed to continued weakness in overall labor market conditions. Growth in employment had been disappointing, with the average monthly increases in payrolls so far this year below last year's pace and below the pace that would be required to make significant progress in reducing the unemployment rate. The unemployment rate declined around the turn of the year but had not fallen significantly since then. In addition, the labor force participation rate and employment-to-population ratios were at or near post-recession lows.

Meeting participants again discussed the extent of slack in labor markets. A few participants reiterated their view that the persistently high level of unemployment reflected the effect of structural factors, including mismatches across and within sectors between the skills of the unemployed and those demanded in sectors in which jobs were currently available. It was also suggested that there was an ongoing process of polarization in the labor market, with the share of job opportunities in middle-skill occupations continuing to decline while the shares of low and high skill occupations increased. Both of these views would suggest a lower level of potential output and thus reduced scope for combating unemployment with additional monetary policy stimulus. Several participants, while acknowledging some evidence of structural changes in the labor market, stated again that weak aggregate demand was the principal reason for the high unemployment rate. They saw slack in resource utilization as remaining wide, indicating an important role for additional policy accommodation. Several participants noted the risk that continued high levels of unemployment, even if initially cyclical, might ultimately induce adverse structural changes. In particular, they expressed concerns about the risk that the exceptionally high level of long-term unemployment and the depressed level of labor participation could ultimately lead to permanent negative effects on the skills and prospects of those without jobs, thereby reducing the longer-run normal level of employment and potential output.

Sentiment in financial markets improved notably during the intermeeting period. Participants indicated that recent decisions by the ECB helped ease investors' anxiety about the near-term prospects for the euro. However, participants also observed that significant risks related to the euro-area banking and fiscal crisis remained, and that a number of important issues would have to be resolved in order to achieve further progress toward a comprehensive solution to the crisis. Participants noted that indicators of financial stress in the United States were not especially high and overall conditions in U.S. financial markets remained favorable. Longer-term interest rates were low and supportive of economic growth, while equity prices had risen. One participant noted that, while there were few current signs of excessive risk-taking, low interest rates could ultimately lead to financial imbalances that would be challenging to detect before they became serious problems.

The incoming information on inflation over the intermeeting period was largely in line with participants' expectations. Despite recent increases in the prices of some key commodities, consumer price inflation remained subdued. With longer-term inflation expectations stable and the unemployment rate elevated, participants generally anticipated that inflation over the medium run would likely run at or below the 2 percent rate that the Committee judges to be most consistent with its mandate. Most participants saw the risks to the outlook for inflation as roughly balanced. A few participants felt that maintaining a highly accommodative stance of monetary policy over an extended period could unmoor longer-term inflation expectations and, against a backdrop of higher energy and commodity prices, posed upside risks to inflation. Other participants, by contrast, saw inflation risks as tilted to the

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downside, given their expectations for sizable and persistent resource slack.

Participants again exchanged views on the likely benefits and costs of a new large-scale asset purchase program. Many participants anticipated that such a program would provide support to the economic recovery by putting downward pressure on longer-term interest rates and promoting more accommodative financial conditions. A number of participants also indicated that it could lift consumer and business confidence by emphasizing the Committee's commitment to continued progress toward its dual mandate. In addition, it was noted that additional purchases could reinforce the Committee's forward guidance regarding the federal funds rate. Participants discussed the effectiveness of purchases of Treasury securities relative to purchases of agency MBS in easing financial conditions. Some participants suggested that, all else being equal, MBS purchases could be preferable because they would more directly support the housing sector, which remains weak but has shown some signs of improvement of late. One participant, however, objected that purchases of MBS, when compared to purchases of longer-term Treasury securities, would likely result in higher interest rates for many borrowers in other sectors. A number of participants highlighted the uncertainty about the overall effects of additional purchases on financial markets and the real economy. Some participants thought past purchases were useful because they were conducted during periods of market stress or heightened deflation risk and were less confident of the efficacy of additional purchases under present circumstances. A few expressed skepticism that additional policy accommodation could help spur an economy that they saw as held back by uncertainties and a range of structural issues. In discussing the costs and risks that such a program might entail, several participants reiterated their concern that additional purchases might complicate the Committee's efforts to withdraw monetary policy accommodation when it eventually became appropriate to do so, raising the risk of undesirably high inflation in the future and potentially unmooring inflation expectations. One participant noted that an extended period of accommodation resulting from additional asset purchases could lead to excessive risk-taking on the part of some investors and so undermine financial stability over time. The possible adverse effects of large purchases on market functioning were also noted. However, most participants thought these risks could be managed since the Committee could make adjustments to its purchases, as needed, in response to economic developments or to changes in its assessment of their efficacy and costs.

Participants also discussed issues related to the provision of forward guidance regarding the future path of the federal funds rate. It was noted that clear communication and credibility allow the central bank to help shape the public's expectations about policy, which is crucial to managing monetary policy when the federal funds rate is at its effective lower bound. A number of participants questioned the effectiveness of continuing to use a calendar date to provide forward guidance, noting that a change in the calendar date might be interpreted pessimistically as a downgrade of the Committee's economic outlook rather than as conveying the Committee's determination to support the economic recovery. If the public interpreted the statement pessimistically, consumer and business confidence could fall rather than rise. Many participants indicated a preference for replacing the calendar date with language describing the economic factors that the Committee would consider in deciding to raise its target for the federal funds rate. Participants discussed the benefits of such an approach, including the potential for enhanced effectiveness of policy through greater clarity regarding the Committee's future behavior. That approach could also bolster the stimulus provided by the System's holdings of longer-term securities. It was noted that forward guidance along these lines would allow market expectations regarding the federal funds rate to adjust automatically in response to incoming data on the economy. Many participants thought that more-effective forward guidance could be provided by specifying numerical thresholds for labor market and inflation indicators that would be consistent with maintaining the federal funds rate at exceptionally low levels. However, reaching agreement on specific thresholds could be challenging given the diversity of participants' views, and some were reluctant to specify explicit numerical thresholds out of concern that such thresholds would necessarily be too simple to fully capture the complexities of the economy and the policy process or could be incorrectly interpreted as triggers prompting an automatic policy response. In addition, numerical thresholds could be confused with the Committee's longer-term objectives, and so undermine the Committee's credibility. At the conclusion of the discussion, most participants agreed that the use of numerical thresholds could be useful to provide more clarity about the conditionality of the forward guidance but thought that further work would be needed to address the related communications challenges.

downside, given their expectations for sizable and persistent resource slack.

Participants again exchanged views on the likely benefits and costs of a new large-scale asset purchase program. Many participants anticipated that such a program would provide support to the economic recovery by putting downward pressure on longer-term interest rates and promoting more accommodative financial conditions. A number of participants also indicated that it could lift consumer and business confidence by emphasizing the Committee's commitment to continued progress toward its dual mandate. In addition, it was noted that additional purchases could reinforce the Committee's forward guidance regarding the federal funds rate. Participants discussed the effectiveness of purchases of Treasury securities relative to purchases of agency MBS in easing financial conditions. Some participants suggested that, all else being equal, MBS purchases could be preferable because they would more directly support the housing sector, which remains weak but has shown some signs of improvement of late. One participant, however, objected that purchases of MBS, when compared to purchases of longer-term Treasury securities, would likely result in higher interest rates for many borrowers in other sectors. A number of participants highlighted the uncertainty about the overall effects of additional purchases on financial markets and the real economy. Some participants thought past purchases were useful because they were conducted during periods of market stress or heightened deflation risk and were less confident of the efficacy of additional purchases under present circumstances. A few expressed skepticism that additional policy accommodation could help spur an economy that they saw as held back by uncertainties and a range of structural issues. In discussing the costs and risks that such a program might entail, several participants reiterated their concern that additional purchases might complicate the Committee's efforts to withdraw monetary policy accommodation when it eventually became appropriate to do so, raising the risk of undesirably high inflation in the future and potentially unmooring inflation expectations. One participant noted that an extended period of accommodation resulting from additional asset purchases could lead to excessive risk-taking on the part of some investors and so undermine financial stability over time. The possible adverse effects of large purchases on market functioning were also noted. However, most participants thought these risks could be managed since the Committee could make adjustments to its purchases, as needed, in response to economic developments or to changes in its assessment of their efficacy and costs.

Participants also discussed issues related to the provision of forward guidance regarding the future path of the federal funds rate. It was noted that clear communication and credibility allow the central bank to help shape the public's expectations about policy, which is crucial to managing monetary policy when the federal funds rate is at its effective lower bound. A number of participants questioned the effectiveness of continuing to use a calendar date to provide forward guidance, noting that a change in the calendar date might be interpreted pessimistically as a downgrade of the Committee's economic outlook rather than as conveying the Committee's determination to support the economic recovery. If the public interpreted the statement pessimistically, consumer and business confidence could fall rather than rise. Many participants indicated a preference for replacing the calendar date with language describing the economic factors that the Committee would consider in deciding to raise its target for the federal funds rate. Participants discussed the benefits of such an approach, including the potential for enhanced effectiveness of policy through greater clarity regarding the Committee's future behavior. That approach could also bolster the stimulus provided by the System's holdings of longer-term securities. It was noted that forward guidance along these lines would allow market expectations regarding the federal funds rate to adjust automatically in response to incoming data on the economy. Many participants thought that more-effective forward guidance could be provided by specifying numerical thresholds for labor market and inflation indicators that would be consistent with maintaining the federal funds rate at exceptionally low levels. However, reaching agreement on specific thresholds could be challenging given the diversity of participants' views, and some were reluctant to specify explicit numerical thresholds out of concern that such thresholds would necessarily be too simple to fully capture the complexities of the economy and the policy process or could be incorrectly interpreted as triggers prompting an automatic policy response. In addition, numerical thresholds could be confused with the Committee's longer-term objectives, and so undermine the Committee's credibility. At the conclusion of the discussion, most participants agreed that the use of numerical thresholds could be useful to provide more clarity about the conditionality of the forward guidance but thought that further work would be needed to address the related communications challenges.

Committee Policy Action

Committee members saw the information received over the intermeeting period as suggesting that economic activity had continued to expand at a moderate pace in recent months. However, growth in employment had been slow, and almost all members saw the unemployment rate as still elevated relative to levels that they viewed as consistent with the Committee's mandate. Members generally judged that without additional policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Moreover, while the sovereign and banking crisis in Europe had eased some recently, members still saw strains in global financial conditions as posing significant downside risks to the economic outlook. The possibility of a larger-than-expected fiscal tightening in the United States and slower global growth were also seen as downside risks. Inflation had been subdued, even though the prices of some key commodities had increased recently. Members generally continued to anticipate that, with longer-term inflation expectations stable and given the existing slack in resource utilization, inflation over the medium term would run at or below the Committee's longer-run objective of 2 percent.

In their discussion of monetary policy for the period ahead, members generally expressed concerns about the slow pace of improvement in labor market conditions and all members but one agreed that the outlook for economic activity and inflation called for additional monetary accommodation. Members agreed that such accommodation should be provided through both a strengthening of the forward guidance regarding the federal funds rate and purchases of additional agency MBS at a pace of $40 billion per month. Along with the ongoing purchases of $45 billion per month of longer-term Treasury securities under the maturity extension program announced in June, these purchases will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year, and should put downward pressure on longer-term interest rates, support mortgage markets, and help make broader financial conditions more accommodative. Members also agreed to maintain the Committee's existing policy of reinvesting principal payments from its holdings of agency debt and agency MBS into agency MBS. The Committee agreed that it would closely monitor incoming information on economic and financial developments in coming months, and that if the outlook for the labor market did not improve substantially, it would continue its purchases of agency MBS, undertake additional asset purchases, and employ its other policy tools as appropriate until such improvement is achieved in a context of price stability. This flexible approach was seen as allowing the Committee to tailor its policy response over time to incoming information while incorporating conditional features that clarified the Committee's intention to improve labor market conditions, thereby enhancing the effectiveness of the action by helping to bolster business and consumer confidence. While members generally viewed the potential risks associated with these purchases as manageable, the Committee agreed that in determining the size, pace, and composition of its asset purchases, it would, as always, take appropriate account of the likely efficacy and costs of such purchases. With regard to the forward guidance, the Committee agreed on an extension through mid-2015, in conjunction with language in the statement indicating that it expects that a highly accommodative stance of policy will remain appropriate for a considerable time after the economic recovery strengthens. That new language was meant to clarify that the maintenance of a very low federal funds rate over that period did not reflect an expectation that the economy would remain weak, but rather reflected the Committee's intention to support a stronger economic recovery. One member dissented from the policy decision, on the grounds that he opposed additional asset purchases and preferred to omit the calendar date from the forward guidance; in his view, it would be better to use qualitative language to describe the factors that would influence the Committee's decision to increase the target federal funds rate.

At the conclusion of the discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> "The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. The Committee directs the Desk to continue the maturity extension program it announced in June to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about $267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining

Committee Policy Action

Committee members saw the information received over the intermeeting period as suggesting that economic activity had continued to expand at a moderate pace in recent months. However, growth in employment had been slow, and almost all members saw the unemployment rate as still elevated relative to levels that they viewed as consistent with the Committee's mandate. Members generally judged that without additional policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Moreover, while the sovereign and banking crisis in Europe had eased some recently, members still saw strains in global financial conditions as posing significant downside risks to the economic outlook. The possibility of a larger-than-expected fiscal tightening in the United States and slower global growth were also seen as downside risks. Inflation had been subdued, even though the prices of some key commodities had increased recently. Members generally continued to anticipate that, with longer-term inflation expectations stable and given the existing slack in resource utilization, inflation over the medium term would run at or below the Committee's longer-run objective of 2 percent.

In their discussion of monetary policy for the period ahead, members generally expressed concerns about the slow pace of improvement in labor market conditions and all members but one agreed that the outlook for economic activity and inflation called for additional monetary accommodation. Members agreed that such accommodation should be provided through both a strengthening of the forward guidance regarding the federal funds rate and purchases of additional agency MBS at a pace of $40 billion per month. Along with the ongoing purchases of $45 billion per month of longer-term Treasury securities under the maturity extension program announced in June, these purchases will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year, and should put downward pressure on longer-term interest rates, support mortgage markets, and help make broader financial conditions more accommodative. Members also agreed to maintain the Committee's existing policy of reinvesting principal payments from its holdings of agency debt and agency MBS into agency MBS. The Committee agreed that it would closely monitor incoming information on economic and financial developments in coming months, and that if the outlook for the labor market did not improve substantially, it would continue its purchases of agency MBS, undertake additional asset purchases, and employ its other policy tools as appropriate until such improvement is achieved in a context of price stability. This flexible approach was seen as allowing the Committee to tailor its policy response over time to incoming information while incorporating conditional features that clarified the Committee's intention to improve labor market conditions, thereby enhancing the effectiveness of the action by helping to bolster business and consumer confidence. While members generally viewed the potential risks associated with these purchases as manageable, the Committee agreed that in determining the size, pace, and composition of its asset purchases, it would, as always, take appropriate account of the likely efficacy and costs of such purchases. With regard to the forward guidance, the Committee agreed on an extension through mid-2015, in conjunction with language in the statement indicating that it expects that a highly accommodative stance of policy will remain appropriate for a considerable time after the economic recovery strengthens. That new language was meant to clarify that the maintenance of a very low federal funds rate over that period did not reflect an expectation that the economy would remain weak, but rather reflected the Committee's intention to support a stronger economic recovery. One member dissented from the policy decision, on the grounds that he opposed additional asset purchases and preferred to omit the calendar date from the forward guidance; in his view, it would be better to use qualitative language to describe the factors that would influence the Committee's decision to increase the target federal funds rate.

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> [redacted]

maturities of approximately 3 years or less with a total face value of about $267 billion. For the duration of this program, the Committee directs the Desk to suspend its policy of rolling over maturing Treasury securities into new issues. The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. The Desk is also directed to begin purchasing agency mortgage-backed securities at a pace of about $40 billion per month. The Committee directs the Desk to engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability."

The vote encompassed approval of the statement below to be released at 12:30 p.m.:

"Information received since the Federal Open Market Committee met in August suggests that economic activity has continued to expand at a moderate pace in recent months. Growth in employment has been slow, and the unemployment rate remains elevated. Household spending has continued to advance, but growth in business fixed investment appears to have slowed. The housing sector has shown some further signs of improvement, albeit from a depressed level. Inflation has been subdued, although the prices of some key commodities have increased recently. Longer-term inflation expectations have remained stable.

Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee is concerned that, without further policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Furthermore, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term likely would run at or below its 2 percent objective.

To support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee agreed today to increase policy accommodation by purchasing additional agency mortgage-backed securities at a pace of $40 billion per month. The Committee also will continue through the end of the year its program to extend the average maturity of its holdings of securities as announced in June, and it is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. These actions, which together will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year, should put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.

The Committee will closely monitor incoming information on economic and financial developments in coming months. If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of agency mortgage-backed securities, undertake additional asset purchases, and employ its other policy tools as appropriate until such improvement is achieved in a context of price stability. In determining the size, pace, and composition of its asset purchases, the Committee will, as always, take appropriate account of the likely efficacy and costs of such purchases.

To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after the economic recovery strengthens. In particular, the Committee also decided today to keep the target range for the federal funds rate at 0 to ¼ percent and currently anticipates that exceptionally low levels for the

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[redacted]

[redacted]

federal funds rate are likely to be warranted at least through mid-2015."

Voting for this action: Ben Bernanke, William C. Dudley, Elizabeth Duke, Dennis P. Lockhart, Sandra Pianalto, Jerome H. Powell, Sarah Bloom Raskin, Jeremy C. Stein, Daniel K. Tarullo, John C. Williams, and Janet L. Yellen.

Voting against this action: Jeffrey M. Lacker.

Mr. Lacker dissented because he believed that additional monetary stimulus at this time was unlikely to result in a discernible improvement in economic growth without also causing an unwanted increase in inflation. Moreover, he expressed his opposition to the purchase of more MBS, because he viewed it as inappropriate for the Committee to choose a particular sector of the economy to support; purchases of Treasury securities instead would have avoided this effect. Finally, he preferred to omit the description of the time period over which exceptionally low levels for the federal funds rate were likely to be warranted.

Consensus Forecast Experiment

In light of the discussion at the previous FOMC meeting, the subcommittee on communications developed a second experimental exercise intended to shed light on the feasibility and desirability of constructing an FOMC consensus forecast. At this meeting, participants discussed possible formulations of the monetary policy assumptions on which to condition an FOMC consensus forecast and alternative approaches for participants to express their endorsement of the consensus forecast. In conclusion, participants agreed to have a broad discussion of the experiences gathered from the two experimental exercises in conjunction with the October FOMC meeting.

It was agreed that the next meeting of the Committee would be held on Tuesday–Wednesday, October 23–24, 2012. The meeting adjourned at 12:10 p.m. on September 13, 2012.

Notation Vote

By notation vote completed on August 21, 2012, the Committee unanimously approved the minutes of the FOMC meeting held on July 31–August 1, 2012.

William B. English
Secretary

[redacted]

[redacted]

[redacted]

[redacted]

Consensus Forecast Experiment

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Board of Governors
of the
Federal Reserve System
Washington, D.C. 20551

Investigator's Statement of Personal Independence

The Quality Standards for the Federal Offices of Inspector General (Silver Book, Oct. 2003) provides:

> **"The Inspector General and OIG Staff shall adhere to the highest ethical principles by conducting their work with integrity. Integrity is the cornerstone of all ethical conduct, ensuring adherence to accepted codes of ethics and practice. Objectivity. independence, professional judgment and confidentialty are all elements of integrity. Objectivity imposes the obligation to be impatrial, intellectually honest, and free of conflicts of interest. Independence is a critical element of objectivity. Without independenhce, both in fact adn in appearance, objectivity is impaired."**

This form, which documents compliance with Silve Book Standards, is to be completed by each staff member assigned to an administrative investigation, civil/criminal investigation, preliminary or proactive review and will be maintained as an exhibit in the case file of each such matter. Although not all-inclusive, investigators should consider the following as well as other potential impairment of independence prior to the start of each assignment:

- Immediate family or close family member who is a director or officer of the entity being investigated, or an employee of the entity, is in a position to exert direct and significant influence over the entity or the program under investigation;
- Financial interest in the entity or program;
- Preconceived ideas toward individuals, groups, organizations, or objectives of a particular program that could bias the investigation;
- Employment being sought with an entity under investigation; or
- Official, professional, personal, or financial relationships that might cause the invesigator to limit the extent of the inquiry or to weaken or slant findings in any way, or that might cause a reasonable person to question the investigator's ability to maintain impartiality in the matter.

I certify that I am not aware of any conditions that could constitute or cause impairment to my performance on this investigation. If any such condition should arise during the course of this investigation, I will immediately notify the appropriate investigative manager.

Release of Confidential Information - FOMC	I20130013-HQO
Case Name	**Case Number**
(b) (6), (b) (7)(C)	Wednesday, May 15, 2013
Investigator Name	**Date**
(b) (6), (b) (7)(C)	05/15/2013

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

- You are being asked to provide information as part of an investigation being conducted by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.
- This investigation is being conducted pursuant to the Inspector General Act of 1978, as amended.
- This is a voluntary interview. Accordingly, you do not have to answer questions. No disciplinary action will be taken against you solely for refusing to answer questions.
- Any statement you furnish may be used as evidence in any future criminal proceeding or agency disciplinary proceeding, or both.

ACKNOWLEDGMENT

I understand the warnings and assurances stated above and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of [redacted] (b) (6), (b) (7)(C)

[redacted] (b) (6), (b) (7)(C)

OIG Special Agent

[redacted] (b) (6), (b) (7)(C)

Witness Signature

Employee's Signature

120 pm 4/24/14

Date and Time

Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

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(b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]

Employee's Signature

(b) (6), (b) (7)(C) [redacted]

Witness Signature

April 7, 2014 1:25 pm

Date and Time

(b) (6), (b) (7)(C) [redacted]

Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

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[redacted] (b) (6), (b) (7)(C)
Employee's Signature

[redacted] (b) (6), (b) (7)(C)
Witness Signature

02/25/14
Date and Time

1825 I Street, [redacted] (b) (6), (b) (7)(C)
Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

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(b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]

Employee's Signature

(b) (6), (b) (7)(C) [redacted]

Witness Signature

2/27/2013 2^00 pm

Date and Time

Location

AUTHORIZED FOR RELEASE

Office of Inspector General Board of Governors of the Federal Reserve System Consumer Financial Protection Bureau Evidence Custody Document	Evidence Custodian Log #: 151 Search Warrant Evidence Log #: *(if applicable)* Search Warrant Box #: *(if applicable)*

Case Name: Release of Confidential Information - FOMC	Case Agent: SSA (b) (6), (b) (7)(C)
Case Number: I 2013 - 0013	Office: HQO
Evidence Obtained Through: ☐ Search Warrant ☐ Consent Search	☒ Other *(if applicable, state method)* (b) (6), (b) (7)(C)
Date Evidence Obtained: 8/14/15	Address of Where Evidence Was Obtained: FRB Philadelphia

Search Warrant/Consent Search Information *(Skip section if evidence was not obtained via search warrant or consent search.)*

Room Where Evidence was Found:	Other Specific Information Where Evidence was Found:
Evidence Found By (*Finder*) (*handwritten initials also needed*):	Witness (*handwritten initials also needed*):
Releasing Official (*Finder*): Date	Receiving Official (*On-Site Seizing Agent*): Date
Signature of Releasing Official (*Finder*):	Signature of Receiving Official (*On-Site Seizing Agent*):
Releasing Official (*On-Site Seizing Agent*): Date	Receiving Official (*Evidence Custodian*): Date
Signature of Releasing Official (*On-Site Seizing Agent*):	Signature of Receiving Official (*Evidence Custodian*):

Description of Evidence:

DATALOCKER S/N (b)(6), (b)(7)(C)

Chain of Custody *(continuation on back page if needed)*

Date		
8/14/15	Releasing Official and Title: (b) (6), (b) (7)(C) (b) (6), (b) (7)(C)	Receiving Official and Title: (b) (6), (b) (7)(C)
	Signature of Releasing Official: (b) (6), (b) (7)(C)	Signature of Receiving Official: (b) (6), (b) (7)(C)
	Purpose of Change of Custody: Evidence	

Final Disposition of Evidence:	☐ Returned to Owner	☐ Destroyed	☐ Other

Date	Name and Title of Individual Authorizing Final Disposition of Evidence	Signature (*Witnessing Special Agent*)
Date	Printed Names of Evidence Custodian and Witnessing Special Agent	Signature (*Evidence Custodian*)

Original- Attach to Evidence   Copy - Evidence Room (Three-Ring Binder)   Copy - Case File

Chain of Custody *(continuation from front page)*		
Date 8/17/2015	Releasing Official and Title: SA (b) (6), (b) (7)(C) Signat (b) (6), (b) (7)(C) Purpose of Change of Custody: ECU	Receiving Official and Title: SAC (b) (6), (b) (7)(C) (b) (6), (b) (7)(C)
Date	Releasing Official and Title: Signature of Releasing Official: Purpose of Change of Custody:	Receiving Official and Title: Signature of Receiving Official:
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Date	Releasing Official and Title: Signature of Releasing Official: Purpose of Change of Custody:	Receiving Official and Title: Signature of Receiving Official:

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Evidence Custody Document

Evidence Custodian Log #: 150

Search Warrant Evidence Log #: *(if applicable)*

Search Warrant Box #: *(if applicable)*

Case Name: Release of Confidential Information-FDIC

Case Agent: SSA (b) (6), (b) (7)(C)

Case Number: I2013-0013

Office: HQO

Evidence Obtained Through: ☐ Search Warrant ☐ Consent Search ☑ Other *(if applicable, state method)* Provided by (b) (6), (b) (7)(C)

Date Evidence Obtained: 8/7/2015

Address of Where Evidence Was Obtained: (b) (6), (b) (7)(C)

Search Warrant/Consent Search Information *(Skip section if evidence was not obtained via search warrant or consent search.)*

Room Where Evidence was Found:	Other Specific Information Where Evidence was Found:
Evidence Found By *(Finder)* *(handwritten initials also needed)*:	Witness *(handwritten initials also needed)*:
Releasing Official *(Finder)*: Date	Receiving Official *(On-Site Seizing Agent)*: Date
Signature of Releasing Official *(Finder)*:	Signature of Receiving Official *(On-Site Seizing Agent)*:
Releasing Official *(On-Site Seizing Agent)*: Date	Receiving Official *(Evidence Custodian)*: Date
Signature of Releasing Official *(On-Site Seizing Agent)*:	Signature of Receiving Official *(Evidence Custodian)*:

Description of Evidence: One (1) HP laptop model 2506P (serial number (b) (6), (b) (7)(C) issued to (b) (6), (b) (7)(C) at (b) (6), (b) (7)(C)

Chain of Custody *(continuation on back page if needed)*

Date	Releasing Official and Title:	Receiving Official and Title:
8/7/2015	SSA (b) (6), (b) (7)(C)	SA (b) (6), (b) (7)(C)
	Signature: (b) (6), (b) (7)(C)	Signature: (b) (6), (b) (7)(C)
	Purpose of Change of Custody: Evidence	

Final Disposition of Evidence: ☐ Returned to Owner ☐ Destroyed ☐ Other

Date	Name and Title of Individual Authorizing Final Disposition of Evidence	Signature *(Witnessing Special Agent)*
Date	Printed Names of Evidence Custodian and Witnessing Special Agent	Signature *(Evidence Custodian)*

Original- Attach to Evidence   Copy - Evidence Room (Three-Ring Binder)   Copy - Case File

Chain of Custody *(continuation from front page)*		
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
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	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	

Restricted FR

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

ELECTRONIC CRIMES UNIT EVIDENCE/PROPERTY REPORT

DATE:	CASE NUMBER:	DATE PROPERTY ACQUIRED:	REPORT NUMBER:
Wednesday, March 25, 2015	I20130013-HQO	Wednesday, March 25, 2015	

SOURCE FROM WHICH PROPERTY WAS ACQUIRED:	PROPERTY WAS ACQUIRED BY:
(b) (6), (b) (7)(C) Board IT	☐ Search Warrant ☐ Given Voluntarily ☐ Grand Jury Action ☐ Found/Abandoned ☐ From Other Agency ☒ Other (Specify): Employee Investigation
Property Retained At: **ECU Lab** **1825 I Street NW, Wash DC 20551**	

Description of Property Acquired

ITEMS LISTED BELOW INCLUDE: 1. HIGH VALUE YES NO

ITEM NO.	DESCRIPTION	DISPOSITION CODE (SEE BELOW):
1	.pst file for (b) (6), (b) (7)(C)	

	DISPOSITION CODE	
A) Returned to Rightful Owner B) Retained in Case File C) Retained by Court/AUSA	D) Destroyed (See Below or Attached Certificate) E) Retained Pending Appeal	F) Other (Please Specify)

Destruction Certification

DATE	ITEM # LISTED ABOVE	HOW DESTROYED	SA'S SIGNATURE
I Have Witnessed the Destruction of the Property Above in the Manner and on the Date Stated Below.			
DATE:	WITNESS:	DATE:	WITNESS:

OIG Form IN-016-2

ITEM NO.	DESCRIPTION
1	.pst file for (b) (6), (b) (7)(C)

OIG Form IN-016-2

CHAIN OF CUSTODY

ITEM NO.	FROM (NAME):	TO (NAME):	DATE/TIME
1	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C)	3/25/15 2:40

OIG Form IN-016-2

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Warnings and Assurances to Employee Requested to Provide Information on a Voluntary Basis (Garrity)

(b) (6), (b) (7)(C) [redacted]

You are being asked to provide information as part of an investigation being conducted by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.

This investigation is being conducted pursuant to the Inspector General Act of 1978, as amended.

This is a voluntary interview. Accordingly, you do not have to answer questions. No disciplinary action will be taken against you solely for refusing to answer questions.

Any statement you furnish may be used as evidence in any future criminal proceeding or agency disciplinary proceeding, or both.

ACKNOWLEDGMENT

I understand the warnings and assurances stated above, and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of any kind has been used against me.

(b) (6), (b) (7)(C) [redacted]

OIG Special Agent

(b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]

9/20/2016 9:40 a.m.

Date and time

1825 I St. NW Wash DC

Location

OIG Form IN-007-4

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

- You are being asked to provide information as part of an investigation being conducted by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.

- This investigation is being conducted pursuant to the Inspector General Act of 1978, as amended.

- This is a voluntary interview. Accordingly, you do not have to answer questions. No disciplinary action will be taken against you solely for refusing to answer questions.

- Any statement you furnish may be used as evidence in any future criminal proceeding or agency disciplinary proceeding, or both.

ACKNOWLEDGMENT

I understand the warnings and assurances stated above and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of any (b) (6), (b) (7)(C)inst me.

(b) (6), (b) (7)(C)

Employee's Signature

OIG Special Agent

(b) (6), (b) (7)(C)

5/6/15 @1520
Date and Time

1825 I St. W.C. DC
Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

- You are being asked to provide information as part of an investigation being conducted by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.
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ACKNOWLEDGMENT

I understand the warnings and assurances stated above and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of a (b) (6), (b) (7)(C) st me.

(b) (6), (b) (7)(C)

OIG Special Agent

(b) (6), (b) (7)(C)

Employee's Signature

(b) (6), (b) (7)(C)

Witness Signature

5/5/15

Date and Time

Bd of Governors, Wash DC

Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

- You are being asked to provide information as part of an investigation being conducted by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.
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ACKNOWLEDGMENT

I understand the warnings and assurances stated above and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of any [redacted] (b) (6), (b) (7)(C) ne.

[redacted] (b) (6), (b) (7)(C)
OIG Special Agent

[redacted] (b) (6), (b) (7)(C)
Employee's Signature

[redacted] (b) (6), (b) (7)(C)
Witness Signature

5/14/2015 11:39 a.m.
Date and Time

1825 I St. NW
Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

- You are being asked to provide information as part of an investigation being conducted by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.

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ACKNOWLEDGMENT

I understand the warnings and assurances stated above and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of an[redacted] (b) (6), (b) (7)(C) t me.

(b) (6), (b) (7)(C) [redacted]
OIG Special Agent
(b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]
Employee's Signature

5/6/2015 @ 0500
Date and Time

1825 I
Location

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

- You are being asked to provide information as part of an investigation being conducted by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.

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ACKNOWLEDGMENT

I understand the warnings and assurances stated above and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of any ki[redacted] (b) (6), (b) (7)(C) e.

[redacted] (b) (6), (b) (7)(C)
OIG Special Agent

[redacted] (b) (6), (b) (7)(C)
Witness Signature

[redacted] (b) (6), (b) (7)(C)
Employee's Signature

5/6/15 1:05 pm
Date and Time

IG offices
Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

- You are being asked to provide information as part of an investigation being conducted by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.
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ACKNOWLEDGMENT

I understand the warnings and assurances stated above and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of any (b) (6), (b) (7)(C) against me.

(b) (6), (b) (7)(C)

OIG Special Agent

(b) (6), (b) (7)(C)

Employee's Signature

05/06/15 @ 11:10

Date and Time

1825 I St. NW Wash DC

Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

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- Any statement you furnish may be used as evidence in any future criminal proceeding or agency disciplinary proceeding, or both.

ACKNOWLEDGMENT

I understand the warnings and assurances stated above and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of a [redacted]

(b) (6), (b) (7)(C)
OIG Special Agent

(b) (6), (b) (7)(C)
Employee's Signature

(b) (6), (b) (7)(C)
Witness Signature

5/5/15 1^{20}pm
Date and Time

1825 I St. NW
Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

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(b) (6), (b) (7)(C)
OIG Special Agent

(b) (6), (b) (7)(C)
Employee's Signature

(b) (6), (b) (7)(C)
Witness Signature

May 5, 2015
Date and Time

1825 K St NW
Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

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(b) (6), (b) (7)(C)

OIG Special Agent

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

Employee's Signature

May 5, 2015

Date and Time

Federal Reserve Board.

Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

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ACKNOWLEDGMENT

I understand the warnings and assurances stated above and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of an (b) (6), (b) (7)(C) nst me.

(b) (6), (b) (7)(C)

OIG Special Agent

(b) (6), (b) (7)(C)

Witness Signature

(b) (6), (b) (7)(C)

May 5, 2015 2:00 pm

Date and Time

1825 Eye St NW DC

Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

WARNINGS AND ASSURANCES TO EMPLOYEE REQUESTED TO PROVIDE INFORMATION ON A VOLUNTARY BASIS (GARRITY)

- You are being asked to provide information as part of an investigation being conducted by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.

- This investigation is being conducted pursuant to the Inspector General Act of 1978, as amended.

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- Any statement you furnish may be used as evidence in any future criminal proceeding or agency disciplinary proceeding, or both.

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I understand the warnings and assurances stated above and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of any k[redacted] (b) (6), (b) (7)(C) ne.

[redacted] (b) (6), (b) (7)(C)
OIG Special Agent

[redacted] (b) (6), (b) (7)(C)

[redacted] (b) (6), (b) (7)(C)
Employee's Signature

5/6/2015 [illegible]
Date and Time

1825 I St. DC
Location

Restricted FR

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Warnings and Assurances to Employee Requested to Provide Information on a Voluntary Basis (Garrity)

(b) (6), (b) (7)(C) [redacted]

- You are being asked to provide information as part of an investigation being conducted by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.

- This investigation is being conducted pursuant to the Inspector General Act of 1978, as amended.

- This is a voluntary interview. Accordingly, you do not have to answer questions. No disciplinary action will be taken against you solely for refusing to answer questions.

- Any statement you furnish may be used as evidence in any future criminal proceeding or agency disciplinary proceeding, or both.

ACKNOWLEDGMENT

I understand the warnings and assurances stated above, and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of any kind has been used against me.

(b) (6), (b) (7)(C) [redacted]
OIG Special Agent

(b) (6), (b) (7)(C) [redacted]
Employee's signature

(b) (6), (b) (7)(C) [redacted]

2/3/16
Date and time

FRB-OIG 2763
Location

OIG Form IN-007-4

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Warnings and Assurances to Employee Requested to Provide Information on a Voluntary Basis (Garrity)

- You are being asked to provide information as part of an investigation being cond[redacted] (b) (6), (b) (7)(C) by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.

- This investigation is being conducted pursuant to the Inspector General Act of 1978, a[redacted] (b) (6), (b) (7)(C) amended.

- This is a voluntary interview. Accordingly, you do not have to answer questions. No[redacted] (b) (6), (b) (7)(C) disciplinary action will be taken against you solely for refusing to answer questions.

- Any statement you furnish may be used as evidence in any future criminal proceeding or [redacted] (b) (6), (b) (7)(C) agency disciplinary proceeding, or both.

ACKNOWLEDGMENT

I understand the warnings and assurances stated above, and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of any kind has been used against me.

(b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]

/17/16 11:01 am
Date and time

OIG - (b) (6), (b) (7)(C) [redacted]
Location

OIG Form IN-007-4

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Warnings and Assurances to Employee Requested to Provide Information on a Voluntary Basis (Garrity)

(b) (6), (b) (7)(C) [redacted]

- You are being asked to provide information as part of an investigation being conducted [redacted] by the Office of the Inspector General into alleged misconduct and for improper performance of official duties.

- This investigation is being conducted pursuant to the Inspector General Act of 1978, as [redacted] amended.

- This is a voluntary interview. Accordingly, you do not have to answer questions. No disciplinary action will be taken against you solely for refusing to answer questions. [redacted]

- Any statement you furnish may be used as evidence in any future criminal proceeding [redacted] agency disciplinary proceeding, or both.

ACKNOWLEDGMENT

I understand the warnings and assurances stated above, and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of any kind has been used against me.

(b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]

(b) (6), (b) (7)(C) [redacted]

4/20/16 11:30am
Date and time

Location

OIG Form IN-007-4

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Warnings and Assurances to Employee Requested to Provide Information on a Voluntary Basis (Garrity)

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- Any statement you furnish may be used as evidence in any future criminal proceeding or agency disciplinary proceeding, or both. (b) (6), (b) (7)(C)

ACKNOWLEDGMENT

I understand the warnings and assurances stated above, and I am willing to make a statement and answer questions. No promises or threats have been made to me and no pressure or coercion of any kind has been used against me.

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

OIG Special Agent

(b) (6), (b) (7)(C)

10/7/15

Date and time

(b) (6), (b) (7)(C)

Location

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Evidence Custody Document

Evidence Custodian Log #:	150
Search Warrant Evidence Log #: *(if applicable)*	
Search Warrant Box #: *(if applicable)*	

Case Name: Release of Confidential Information-FOMC	**Case Agent:** SSA (b) (6), (b) (7)(C)
Case Number: I2013-0013	**Office:** HQO

Evidence Obtained Through: ☐ Search Warrant ☐ Consent Search ☑ Other *(if applicable, state method)* Provided by (b) (6), (b) (7)(C)

Date Evidence Obtained: 8/7/2015	**Address of Where Evidence Was Obtained:** (b) (6), (b) (7)(C)

Search Warrant/Consent Search Information *(Skip section if evidence was not obtained via search warrant or consent search.)*

Room Where Evidence was Found:	**Other Specific Information Where Evidence was Found:**
Evidence Found By (*Finder*) *(handwritten initials also needed)*:	**Witness** *(handwritten initials also needed)*:
Releasing Official (*Finder*): **Date**	**Receiving Official (*On-Site Seizing Agent*):** **Date**
Signature of Releasing Official (*Finder*):	**Signature of Receiving Official (*On-Site Seizing Agent*):**
Releasing Official (*On-Site Seizing Agent*): **Date**	**Receiving Official (*Evidence Custodian*):** **Date**
Signature of Releasing Official (*On-Site Seizing Agent*):	**Signature of Receiving Official (*Evidence Custodian*):**

Description of Evidence: One (1) HP laptop model 2506P (serial number (b) (6), (b) (7)(C)
issued to (b) (6), (b) (7)(C) (b) (6), (b) (7)(C)

Chain of Custody *(continuation on back page if needed)*

Date	Releasing Official and Title:	Receiving Official and Title:
8/7/2015	SSA (b) (6), (b) (7)(C)	SA (b) (6), (b) (7)(C)
	Signature of Releasing Official: (b) (6), (b) (7)(C)	Signature: (b) (6), (b) (7)(C)
	Purpose of Change of Custody: Evidence	

Final Disposition of Evidence: ☐ Returned to Owner ☐ Destroyed ☐ Other

Date	Name and Title of Individual Authorizing Final Disposition of Evidence	Signature (*Witnessing Special Agent*)
Date	**Printed Names of Evidence Custodian and Witnessing Special Agent**	**Signature (*Evidence Custodian*)**

Original- Attach to Evidence Copy - Evidence Room (Three-Ring Binder) Copy - Case File

Chain of Custody *(continuation from front page)*		
Date 9/1/2015	**Releasing Off** (b) (6), (b) (7)(C) SA	**Receiving Official an** (b) (6), (b) (7)(C) SAC
	Signat (b) (6), (b) (7)(C)	**Si** (b) (6), (b) (7)(C)
	Purpose of Change of Custody: ECU	
Date 9/11/2015	**Releasing Official a** (b) (6), (b) (7)(C) SAC	**Receiving Official and Title:** SA (b) (6), (b) (7)(C)
	S (b) (6), (b) (7)(C)	**Si** (b) (6), (b) (7)(C)
	P Evidence	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Evidence Custody Document

Evidence Custodian Log #:	153
Search Warrant Evidence Log #: *(if applicable)*	
Search Warrant Box #: *(if applicable)*	

Case Name: Release of Confidential Information	Case Agent: SSA (b) (6), (b) (7)(C) [redacted]
Case Number: I2013-0013	Office: HQO

Evidence Obtained Through: ☐ Search Warrant ☐ Consent Search ☑ Other *(if applicable, state method)* (b) (6), (b) (7)(C) [redacted]

Date Evidence Obtained: 09 / 04 / 2015

(b) (6), (b) (7)(C) Address of Where Evidence Was Obtained: (b) (6), (b) (7)(C) [redacted]

Search Warrant/Consent Search Information *(Skip section if evidence was not obtained via search warrant or consent search.)*

Room Where Evidence was Found:	Other Specific Information Where Evidence was Found:
Evidence Found By *(Finder)* *(handwritten initials also needed)*:	Witness *(handwritten initials also needed)*:
Releasing Official *(Finder)*: Date	Receiving Official *(On-Site Seizing Agent)*: Date
Signature of Releasing Official *(Finder)*:	Signature of Receiving Official *(On-Site Seizing Agent)*:
Releasing Official *(On-Site Seizing Agent)*: Date	Receiving Official *(Evidence Custodian)*: Date
Signature of Releasing Official *(On-Site Seizing Agent)*:	Signature of Receiving Official *(Evidence Custodian)*:

Description of Evidence: One Hitachi Hard Drive S/N: (b)(6), (b)(7)(C) [redacted]

Chain of Custody *(continuation on back page if needed)*

Date	Releasing Official and Title	Receiving Official and Title
9/11/15	SAC (b) (6), (b) (7)(C) [redacted]	SA (b) (6), (b) (7)(C) [redacted]
	Signature: (b) (6), (b) (7)(C) [redacted]	Signature: (b) (6), (b) (7)(C) [redacted]
	Purpose of Change of Custody: Evidence	

Final Disposition of Evidence: ☐ Returned to Owner ☐ Destroyed ☐ Other

Date	Name and Title of Individual Authorizing Final Disposition of Evidence	Signature *(Witnessing Special Agent)*

Date	Printed Names of Evidence Custodian and Witnessing Special Agent	Signature *(Evidence Custodian)*

Original- Attach to Evidence　　Copy - Evidence Room (Three-Ring Binder)　　Copy - Case File

Chain of Custody *(continuation from front page)*		
Date 9/11/15	**Releasing** SA (b) (6), (b) (7)(C)	**Receiving Official** SAG (b) (6), (b) (7)(C)
	Si (b) (6), (b) (7)(C)	**Si** (b) (6), (b) (7)(C)
	Purpose of Change of Custody: ECU	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Evidence Custody Document

Evidence Custodian Log #:	152
Search Warrant Evidence Log #: (if applicable)	
Search Warrant Box #: (if applicable)	

Case Name: Release of Confidential Information	Case Agent: SSA (b) (6), (b) (7)(C)
Case Number: I2013-0013	Office: HQO

Evidence Obtained Through: ☐ Search Warrant ☐ Consent Search ☑ Other (if applicable, state method) (b) (6), (b) (7)(C)

Date Evidence Obtained: 09/04/2015	Address of Where Evidence Was Obtained: (b) (6), (b) (7)(C)

Search Warrant/Consent Search Information *(Skip section if evidence was not obtained via search warrant or consent search.)*

Room Where Evidence was Found:		Other Specific Information Where Evidence was Found:	
Evidence Found By (Finder) (handwritten initials also needed):		Witness (handwritten initials also needed):	
Releasing Official (Finder):	Date	Receiving Official (On-Site Seizing Agent):	Date
Signature of Releasing Official (Finder):		Signature of Receiving Official (On-Site Seizing Agent):	
Releasing Official (On-Site Seizing Agent):	Date	Receiving Official (Evidence Custodian):	Date
Signature of Releasing Official (On-Site Seizing Agent):		Signature of Receiving Official (Evidence Custodian):	

Description of Evidence: One 500 GB Western Digital Hard drive
S/N: (b)(6), (b)(7)(C)

Chain of Custody *(continuation on back page if needed)*

Date	Releasing Official	Receiving Official
9/11/15	SAC (b) (6), (b) (7)(C)	SA (b) (6), (b) (7)(C)
	(b) (6), (b) (7)(C)	Sig (b) (6), (b) (7)(C)
	Evidence	

Final Disposition of Evidence: ☐ Returned to Owner ☐ Destroyed ☐ Other

Date	Name and Title of Individual Authorizing Final Disposition of Evidence	Signature (Witnessing Special Agent)
Date	Printed Names of Evidence Custodian and Witnessing Special Agent	Signature (Evidence Custodian)

Original- Attach to Evidence Copy - Evidence Room (Three-Ring Binder) Copy - Case File

Chain of Custody *(continuation from front page)*

Date	Releasing Official and Title / Signature	Receiving Official and Title / Signature
Date 9/11/15	Releasing Offi SA (b) (6), (b) (7)(C)	Receiving Officia SAC (b) (6), (b) (7)(C)
	Sig (b) (6), (b) (7)(C)	(b) (6), (b) (7)(C)
	Purpose of Change of Custody: ECU	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	

	Office of Inspector General **Board of Governors of the Federal Reserve System** **Consumer Financial Protection Bureau** **Evidence Custody Document**	Evidence Custodian Log #: 152 Search Warrant Evidence Log #: *(if applicable)* Search Warrant Box #: *(if applicable)*

Case Name: Release of Confidential Information	Case Agent: SSA (b) (6), (b) (7)(C) [redacted]
Case Number: I2013-0013	Office: HQO

Evidence Obtained Through: ☐ Search Warrant ☐ Consent Search ☑ Other *(if applicable, state method)* (b) (6), (b) (7)(C) [redacted]

Date Evidence Obtained: 09/04/2015 | (b) (6), (b) (7)(C) [redacted]

Search Warrant/Consent Search Information *(Skip section if evidence was not obtained via search warrant or consent search.)*

Room Where Evidence was Found:	Other Specific Information Where Evidence was Found:
Evidence Found By *(Finder)* *(handwritten initials also needed)*:	Witness *(handwritten initials also needed)*:
Releasing Official *(Finder)*: Date	Receiving Official *(On-Site Seizing Agent)*: Date
Signature of Releasing Official *(Finder)*:	Signature of Receiving Official *(On-Site Seizing Agent)*:
Releasing Official *(On-Site Seizing Agent)*: Date	Receiving Official *(Evidence Custodian)*: Date
Signature of Releasing Official *(On-Site Seizing Agent)*:	Signature of Receiving Official *(Evidence Custodian)*:

Description of Evidence: One 500 GB Western Digital Hard drive
S/N: (b)(6), (b)(7)(C) [redacted]

Chain of Custody *(continuation on back page if needed)*

Date	Releasing Official and Title	Receiving Official and Title
9/11/15	SAC (b) (6), (b) (7)(C) [redacted]	SA (b) (6), (b) (7)(C) [redacted]
	Signature: (b) (6), (b) (7)(C) [redacted]	Signature: (b) (6), (b) (7)(C) [redacted]
	Purpose: [redacted] Evidence	

Final Disposition of Evidence: ☐ Returned to Owner ☐ Destroyed ☐ Other

Date	Name and Title of Individual Authorizing Final Disposition of Evidence	Signature *(Witnessing Special Agent)*
Date	Printed Names of Evidence Custodian and Witnessing Special Agent	Signature *(Evidence Custodian)*

Original- Attach to Evidence | Copy - Evidence Room (Three-Ring Binder) | Copy - Case File

Chain of Custody *(continuation from front page)*		
Date 9/11/15	Releasing Official and Title: SA (b) (6), (b) (7)(C)	Receiving Official and Title: SAC (b) (6), (b) (7)(C)
	Signature of Releasing Official: (b) (6), (b) (7)(C)	Signature of Receiving Official: (b) (6), (b) (7)(C)
	Purpose of Change of Custody: ECU	
Date 6/20/16	Releasing Official and Title: SAC (b) (6), (b) (7)(C)	Receiving Official and Title: SA (b) (6), (b) (7)(C)
	Signature of Releasing Official: (b) (6), (b) (7)(C)	Signature of Receiving Official: (b) (6), (b) (7)(C)
	Purpose of Change of Custody: Evidence	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Evidence Custody Document

Evidence Custodian Log #: 153

Search Warrant Evidence Log #: *(if applicable)*

Search Warrant Box #: *(if applicable)*

Case Name:	Release of Confidential Information	Case Agent:	SSA (b) (6), (b) (7)(C) [redacted]
Case Number:	I2013-0013	Office:	HQO

Evidence Obtained Through: ☐ Search Warrant ☐ Consent Search ☑ Other *(if applicable, state method)* (b) (6), (b) (7)(C) [redacted]

Date Evidence Obtained: 09 | 04 | 2015

Address of Where Evidence Was Obtained: (b) (6), (b) (7)(C) [redacted]

Search Warrant/Consent Search Information *(Skip section if evidence was not obtained via search warrant or consent search.)*

Room Where Evidence was Found:	Other Specific Information Where Evidence was Found:
Evidence Found By *(Finder)* *(handwritten initials also needed)*:	Witness *(handwritten initials also needed)*:
Releasing Official *(Finder)*: Date	Receiving Official *(On-Site Seizing Agent)*: Date
Signature of Releasing Official *(Finder)*:	Signature of Receiving Official *(On-Site Seizing Agent)*:
Releasing Official *(On-Site Seizing Agent)*: Date	Receiving Official *(Evidence Custodian)*: Date
Signature of Releasing Official *(On-Site Seizing Agent)*:	Signature of Receiving Official *(Evidence Custodian)*:

Description of Evidence: One Hitachi Hard Drive S/N: [redacted] (b)(6), (b)(7)(C)

Chain of Custody *(continuation on back page if needed)*

Date	Releasing Official and Title:	Receiving Official and Title:
9/11/15	SAC (b) (6), (b) (7)(C) [redacted]	SA (b) (6), (b) (7)(C) [redacted]
	Signature: (b) (6), (b) (7)(C) [redacted]	Signature: (b) (6), (b) (7)(C) [redacted]
	Purpose of Change of Custody: Evidence	

Final Disposition of Evidence: ☐ Returned to Owner ☐ Destroyed ☐ Other

Date	Name and Title of Individual Authorizing Final Disposition of Evidence	Signature *(Witnessing Special Agent)*
Date	Printed Names of Evidence Custodian and Witnessing Special Agent	Signature *(Evidence Custodian)*

Original- Attach to Evidence Copy - Evidence Room (Three-Ring Binder) Copy - Case File

Chain of Custody *(continuation from front page)*

Date	Releasing Official and Title	Receiving Official and Title	Signature of Releasing Official	Signature of Receiving Official	Purpose of Change of Custody
9/11/15	SA [redacted] (b) (6), (b) (7)(C)	SAC [redacted] (b) (6), (b) (7)(C)	[redacted] (b) (6), (b) (7)(C)	[redacted] (b) (6), (b) (7)(C)	ECU
6/20/16	SAC [redacted] (b) (6), (b) (7)(C)	SA [redacted] (b) (6), (b) (7)(C)	[redacted] (b) (6), (b) (7)(C)	[redacted] (b) (6), (b) (7)(C)	Evidence

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Evidence Custody Document

Evidence Custodian Log #: 151	
Search Warrant Evidence Log #: (if applicable)	
Search Warrant Box #: (if applicable)	

Case Name: Release of Confidential Information - Form	Case Agent: SSA (b) (6), (b) (7)(C)
Case Number: I 2013-0013	Office: HQO

Evidence Obtained Through: ☐ Search Warrant ☐ Consent Search ☒ Other (if applicable, state method) (b) (6), (b) (7)(C)

Date Evidence Obtained: 8/14/15

Address of Where Evidence Was Obtained: (b) (6), (b) (7)(C)

Search Warrant/Consent Search Information *(Skip section if evidence was not obtained via search warrant or consent search.)*

Room Where Evidence was Found:	Other Specific Information Where Evidence was Found:
Evidence Found By (*Finder*) (*handwritten initials also needed*):	Witness (*handwritten initials also needed*):
Releasing Official (*Finder*): Date	Receiving Official (*On-Site Seizing Agent*): Date
Signature of Releasing Official (*Finder*):	Signature of Receiving Official (*On-Site Seizing Agent*):
Releasing Official (*On-Site Seizing Agent*): Date	Receiving Official (*Evidence Custodian*): Date
Signature of Releasing Official (*On-Site Seizing Agent*):	Signature of Receiving Official (*Evidence Custodian*):

Description of Evidence:

DATALOCKER S/N (b)(6), (b)(7)(C)

Chain of Custody *(continuation on back page if needed)*

Date	Releasing Official and Title:	Receiving Official and Title:
8/14/15	(b) (6), (b) (7)(C) Investigative Analyst	SA (b) (6), (b) (7)(C)
	Signature of (b) (6), (b) (7)(C) al:	Signatu (b) (6), (b) (7)(C)
	Purpose of Change of Custody: Evidence	

Final Disposition of Evidence: ☐ Returned to Owner ☐ Destroyed ☐ Other

Date	Name and Title of Individual Authorizing Final Disposition of Evidence	Signature (*Witnessing Special Agent*)
Date	Printed Names of Evidence Custodian and Witnessing Special Agent	Signature (*Evidence Custodian*)

Original- Attach to Evidence   Copy - Evidence Room (Three-Ring Binder)   Copy - Case File

Chain of Custody *(continuation from front page)*		
Date 8/17/2015	Releasing Official and Title: SA [redacted] (b) (6), (b) (7)(C)	Receiving Offici [redacted] (b) (6), (b) (7)(C) SAC [redacted]
	Signat [redacted] (b) (6), (b) (7)(C)	Si [redacted] (b) (6), (b) (7)(C)
	Purpose of Change of Custody: ECU [redacted]	
Date 8/24/2015	Releasing Offic [redacted] (b) (6), (b) (7)(C) SAC [redacted]	Receiving Officia [redacted] (b) (6), (b) (7)(C) SA [redacted]
	[redacted] (b) (6), (b) (7)(C)	Signat [redacted] (b) (6), (b) (7)(C)
	[redacted] Evidence	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	
Date	Releasing Official and Title:	Receiving Official and Title:
	Signature of Releasing Official:	Signature of Receiving Official:
	Purpose of Change of Custody:	

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

Evidence Custody Document

Evidence Custodian Log #:	150
Search Warrant Evidence Log #: (if applicable)	
Search Warrant Box #: (if applicable)	

Case Name: Release of Confidential Information-FOMC	Case Agent: SSA (b) (6), (b) (7)(C)
Case Number: I2013-0013	Office: HQO

Evidence Obtained Through: ☐ Search Warrant ☐ Consent Search ☑ Other (if applicable, state method) Provided by (b) (6), (b) (7)(C)

Date Evidence Obtained: 8/7/2015	Address of Where Evidence Was Obtained: (b) (6), (b) (7)(C)

Search Warrant/Consent Search Information *(Skip section if evidence was not obtained via search warrant or consent search.)*

Room Where Evidence was Found:		Other Specific Information Where Evidence was Found:	
Evidence Found By (Finder) (handwritten initials also needed):		Witness (handwritten initials also needed):	
Releasing Official (Finder):	Date	Receiving Official (On-Site Seizing Agent):	Date
Signature of Releasing Official (Finder):		Signature of Receiving Official (On-Site Seizing Agent):	
Releasing Official (On-Site Seizing Agent):	Date	Receiving Official (Evidence Custodian):	Date
Signature of Releasing Official (On-Site Seizing Agent):		Signature of Receiving Official (Evidence Custodian):	

Description of Evidence: One (1) HP laptop model 2506P (serial number (b) (6), (b) (7)(C) issued to (b) (6), (b) (7)(C) (b) (6), (b) (7)(C)

Chain of Custody *(continuation on back page if needed)*

Date	Releasing Official/Title	Receiving Official/Title
8/7/2015	SSA (b) (6), (b) (7)(C)	SA (b) (6), (b) (7)(C)
	(b) (6), (b) (7)(C)	Signature: (b) (6), (b) (7)(C)
	Purpose of Change of Custody: Evidence	

Final Disposition of Evidence: ☐ Returned to Owner ☐ Destroyed ☐ Other

Date	Name and Title of Individual Authorizing Final Disposition of Evidence	Signature (Witnessing Special Agent)
Date	**Printed Names of Evidence Custodian and Witnessing Special Agent**	**Signature (Evidence Custodian)**

Chain of Custody *(continuation from front page)*

Date	Releasing Official and Title / Signature of Releasing Official	Receiving Official and Title / Signature of Receiving Official
9/1/2015	**Releasing Official and Title:** SA (b) (6), (b) (7)(C)	**Receiving Official and Title:** SAC (b) (6), (b) (7)(C)
	Signature of Releasing Official: (b) (6), (b) (7)(C)	**Signature of Receiving Official:** (b) (6), (b) (7)(C)
	Purpose of Change of Custody: ECU	
9/11/2015	**Releasing Official and Title:** SA G (b) (6), (b) (7)(C)	**Receiving Official and Title:** SA (b) (6), (b) (7)(C)
	Signature of Releasing Official: (b) (6), (b) (7)(C)	**Signature of Receiving Official:** (b) (6), (b) (7)(C)
	Purpose of Change of Custody: Evidence	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	
Date	**Releasing Official and Title:**	**Receiving Official and Title:**
	Signature of Releasing Official:	**Signature of Receiving Official:**
	Purpose of Change of Custody:	

Restricted FR

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

ELECTRONIC CRIMES UNIT EVIDENCE/PROPERTY REPORT

DATE: 4/23/2015	CASE NUMBER: I20130013-HQO	DATE PROPERTY ACQUIRED: 04/22/2015	REPORT NUMBER: 2
SOURCE FROM WHICH PROPERTY WAS ACQUIRED: .pst file for (b) (6), (b) (7)(C)		PROPERTY WAS ACQUIRED BY: ☐ Search Warrant ☒ Given Voluntarily ☐ Grand Jury Action ☐ Found/Abandoned ☐ From Other Agency ☐ Other (Specify):	
Property Retained At: ECU Lab, Washington DC/Ft. Myers FL.			

Description of Property Acquired

ITEMS LISTED BELOW INCLUDE: 1. HIGH VALUE YES NO

ITEM NO.	DESCRIPTION	DISPOSITION CODE (SEE BELOW):
1.	2nd .pst file for (b) (6), (b) (7)(C)	
A) Returned to Rightful Owner B) Retained in Case File C) Retained by Court/AUSA	DISPOSITION CODE D) Destroyed (See Below or Attached Certificate) E) Retained Pending Appeal	F) Other (Please Specify)

Destruction Certification

DATE	ITEM # LISTED ABOVE	HOW DESTROYED	SA'S SIGNATURE
I Have Witnessed the Destruction of the Property Above in the Manner and on the Date Stated Below.			
DATE:	WITNESS:	DATE:	WITNESS:

OIG Form IN-016-2

CHAIN OF CUSTODY

ITEM NO.	FROM (NAME):	TO (NAME):	DATE/TIME
1	(b) (6), (b) (7)(C)	FedEx	4/23/2015
1	FedEx	SA (b) (6), (b) (7)(C)	4/24/2015

OIG Form IN-016-2

Restricted FR

Office of Inspector General
Board of Governors of the Federal Reserve System
Consumer Financial Protection Bureau

ELECTRONIC CRIMES UNIT EVIDENCE/PROPERTY REPORT

DATE: 04/10/2015	**CASE NUMBER:** I20130013-HQO	**DATE PROPERTY ACQUIRED:** 04/10/2015	**REPORT NUMBER:**
SOURCE FROM WHICH PROPERTY WAS ACQUIRED: Copy of email files for (b) (6), (b) (7)(C)		**PROPERTY WAS ACQUIRED BY:** ☐ Search Warrant ☒ Given Voluntarily ☐ Grand Jury Action ☐ Found/Abandoned ☐ From Other Agency ☐ Other (Specify):	
Property Retained At: ECU Lab, Washington DC			

Description of Property Acquired

ITEMS LISTED BELOW INCLUDE: 1. HIGH VALUE **YES NO**

ITEM NO.	**DESCRIPTION**	**DISPOSITION CODE (SEE BELOW):**
1.	.pst file for (b) (6), (b) (7)(C)	
2.	.pst file for (b) (6), (b) (7)(C)	

	DISPOSITION CODE	
A) Returned to Rightful Owner B) Retained in Case File C) Retained by Court/AUSA	D) Destroyed (See Below or Attached Certificate) E) Retained Pending Appeal	F) Other (Please Specify)

Destruction Certification

DATE	**ITEM # LISTED ABOVE**	**HOW DESTROYED**	**SA'S SIGNATURE**
I Have Witnessed the Destruction of the Property Above in the Manner and on the Date Stated Below.			
DATE:	**WITNESS:**	**DATE:**	**WITNESS:**

OIG Form IN-016-2

CHAIN OF CUSTODY

ITEM NO.	FROM (NAME):	TO (NAME):	DATE/TIME
1.	(b) (6), (b) (7)(C) [redacted]	FedEx	04/10/2015
2.	[redacted]	FedEx	04/10/2015
1.	FedEx	SSA (b) (6), (b) (7)(C) [redacted]	04/13/2015
2.	FedEx	SSA [redacted]	04/13/2015

OIG Form IN-016-2

AUTHORIZED FOR RELEASE

FedEx Express NEW Package US Airbill

FedEx Tracking Number 8050 0921 9093

Form ID No. 0200

Sender's Copy

Please print and press hard.

5/1/2015 Sender's FedEx Account Number (b) (6), (b) (7)(C) [redacted]

's (b) (6), (b) (7)(C) [redacted] Phone (b) (6), (b) (7)(C) [redacted]

ny Federal Reserve Board of Governors

s 12730 New Brittany Blvd., Suite 400 Dept./Floor/Suite/Room

Fort Myers, FL State FL ZIP 33907

nternal Billing Reference
racters will appear on invoice.

nt's SSA (b) (6), (b) (7)(C) [redacted] Phone (b) (6), (b) (7)(C) [redacted]

y Federal Reserve Board of Governors

Attn: (b) (6), (b) (7)(C) [redacted] MS K-300 Dept./Floor/Suite/Room

deliver to P.O. boxes or P.O.

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

(b) (6), (b) (7)(C) [redacted]

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

for the HOLD location address or for continuation of your shipping address.

(b) (6), (b) (7)(C) [redacted]

Easy new Peel-and-Stick airbill. No pouch needed.
Apply airbill directly to your package. See directions on back.

4 Express Package Service *To most locations.
NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs. For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

Next Business Day

- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [X] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- [ ] FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging *Declared value limit $500.

- [X] FedEx Envelope*
- [ ] FedEx Pak*
- [ ] FedEx Box
- [ ] FedEx Tube
- [ ] Other

6 Special Handling and Delivery Signature Options

- [ ] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.
- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?
One box must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ___ x ___ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below.

- [X] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. / Credit Card No. Exp. Date

Total Packages 1 Total Weight ___ lbs. Total Declared Value† $ ___ .00

†Our liability is limited to US$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

644

PULL AND RETAIN THIS COPY BEFORE AFFIXING TO THE PACKAGE. NO POUCH NEEDED.

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AUTHORIZED FOR RELEASE

Terms and Conditions Summary

For the current FedEx Service Guide, which contains the complete Terms and Conditions, go to fedex.com.

Definitions On this Airbill, "we," "our," "us," and "FedEx" refer to Federal Express Corporation, its employees, and agents. "You" and "your" refer to the sender, its employees, and agents.

Agreement To Terms By giving us your package to deliver, you agree to all the terms on this Airbill and in the current FedEx Service Guide, which is available at **fedex.com** or at a FedEx location. You also agree to those terms on behalf of any third party with an interest in the package. If there is a conflict between the current FedEx Service Guide and this Airbill, the current FedEx Service Guide will control. No one is authorized to change the terms of our Agreement.

Responsibility For Packaging And Completing Airbill You are responsible for adequately packaging your goods and properly filling out this Airbill. If you omit the number of packages and/or weight per package, our billing will be based on our best estimate of the number of packages we received and/or an estimated "default" weight per package as determined by us.

Responsibility For Payment Even if you give us different payment instructions, you will always be primarily responsible for all delivery costs, as well as any cost we incur in either returning your package to you or warehousing it pending disposition.

Limitations On Our Liability And Liabilities Not Assumed

- Unless a higher value is declared and paid for, our liability for each package is limited to US$100. You may pay an additional charge for each additional US$100 of declared value. The declared value does not constitute, nor do we provide, cargo liability insurance.
- In any event, we will not be liable for any damage, whether direct, incidental, special, or consequential, in excess of the declared value of a shipment, whether or not FedEx had knowledge that such damages might be incurred, including but not limited to loss of income or profits.
- We won't be liable:
  - for your acts or omissions, including but not limited to improper or insufficient packing, securing, marking, or addressing, or those of the recipient or anyone else with an interest in the package.
  - if you or the recipient violates any of the terms of our Agreement.
  - for loss of or damage to shipments of prohibited items.
  - for loss, damage, or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, acts of public enemies, war, strikes, civil commotions, or acts of public authorities with actual or apparent authority.

Declared Value Limits

- The maximum declared value allowed for a FedEx Envelope or FedEx Pak shipment is US$500.
- For other shipments, the maximum declared value allowed is US$50,000 per package, unless your package contains items of extraordinary value, in which case the maximum declared value allowed is US$1,000 per package.
- Items of extraordinary value include shipments containing such items as artwork, jewelry, furs, precious metals, negotiable instruments, and other items listed in the current FedEx Service Guide.
- You may send more than one package on this Airbill and fill in the total declared value for all packages, not to exceed the US$500, US$1,000, or US$50,000 per package limit described above. (Example: 5 packages can have a total declared value of up to US$250,000.) In that case, our liability is limited to the actual value of the package(s) lost or damaged, but may not exceed the maximum allowable declared value(s) or the total declared value, whichever is less. You are responsible for proving the actual loss or damage.

Filing A Claim YOU MUST MAKE ALL CLAIMS IN WRITIN[G] or online at **fedex.com** and notify us of your claim within stric[t] time limits set out in the current FedEx Service Guide.

You may call our Customer Service department at 1.800.GoFedEx 1.800.463.3339 to report a claim; however, you must still file a timely written claim. We aren't obligated to act on any claim until you have paid all transportation charges, and you may not deduct the amount of your claim from those charges.

If the recipient accepts your package without noting any damage on the delivery record, we will assume the package was delivered in good condition. For us to process your claim, you must make the original shipping cartons and packing available for inspection.

Right To Inspect We may, at our option, open and inspect your packages before or after you give them to us to deliver.

Right Of Rejection We reserve the right to reject a shipment when such shipment would be likely to cause delay or damage to other shipments, equipment, or personnel; or if the shipment is prohibited by law; or if the shipment would violate any terms of our Airbill or the current FedEx Service Guide.

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ECONOMY

How Bernanke Pulled the Fed His Way

ByJON HILSENRATH

Updated Sept. 28, 2012 1:10 p.m. ET

In late August, Federal Reserve Chairman Ben Bernanke argued on behalf of Fed programs to stimulate the lumbering U.S. economy and signaled that more might follow, making headlines in his highly anticipated speech at the Fed's annual retreat in Jackson Hole, Wyo.

As markets rallied at the prospect of new measures to ease credit, a quiet drama was unfolding behind the scenes. Mr. Bernanke was negotiating a high-stakes plan in a flurry of private conversations with colleagues hesitant about aggressively re-engaging the levers of America's central bank.

Ben Bernanke's high-stakes plan to restart the lumbering U.S. economy took shape in an intense flurry of behind-the-scenes discussions between him and colleagues in the days before a crucial September meeting. Jon Hilsenrath explains on Lunch Break. Photo: Getty Images.

For weeks, Mr. Bernanke made dozens of private calls on days, nights and weekends, trying to build broad support for an unusual bond-buying program he wanted approved during the Fed's September meeting, according to people familiar with the matter.

Fed officials in late summer were at odds over how far the central bank should go. Some wanted a bold, innovative program. Others weren't so sure; a few were opposed. Mr. Bernanke set his sights on a handful of fence-sitters who could swing a strong consensus to his side.

More

Beijing, Seoul Blast Fed Push

Interviews with more than a dozen people involved in the Fed decision, both supporters and opponents, show how Mr. Bernanke won over skeptics to advance his policy—a distinction in a Washington era marked by rancor and gridlock. These people also gave a rare view of the low-key persistence of the former economics professor.

Mr. Bernanke didn't see inflation as a threat but viewed unemployment as a deeper problem than he had realized. The central bank, in his view, needed to act. The Fed chairman listened to colleagues' concerns during the calls, people familiar with the matter said, drawing out their reservations and probing for common ground. He eventually seized on a compromise that came from a little-known Fed governor.

The result of the Fed's two-day meeting that began Sept. 12 was an 11-1 vote to undertake one of the central bank's most ambitious stimulus programs. The Fed announced it would buy $40 billion a month of mortgage-backed securities and, for the first time, promised to keep buying until the U.S. job market substantially improved.

The commitment marked a change from the stop-and-start programs the Fed had launched since the financial crisis.

"This is a 'Main Street' policy," Mr. Bernanke said after the September meeting. "What we are about here is trying to get jobs going." The bond buying aims to drive down long-term interest rates and push up the values of homes, stocks and other financial assets. Officials hope their commitment will jolt households and businesses into spending, investing and hiring.

Drawing broad support for the plan was important to Mr. Bernanke in part because the policies he was formulating could outlast him. His term as Fed chairman ends in January 2014. Seeing a return to U.S. full employment as a distant goal, Mr. Bernanke needed the support of officials who might remain at the Fed after he left.

Roots of the Fed decision stretched to March, when Mr. Bernanke in a speech warned the U.S. economy wasn't growing fast enough. Since September 2011, the economy had produced about 200,000 jobs a month, driving down unemployment. But Mr. Bernanke warned that a slowdown would hobble hiring. Indeed, job gains by midyear fell to less than 100,000 a month.

At the central bank's June policy meeting, Fed Governor Daniel Tarullo, a lawyer appointed by President Barack Obama, said the economy felt like a vehicle "stuck in the mud," according to people there. The analogy stuck. A month later, Mr. Bernanke used the same phrase with Congress.

The meeting yielded what Mr. Bernanke considered an important step: the extension of Operation Twist, a Fed program to buy $45 billion of long-term Treasury securities each month, paid with the sales of short-term securities. The program—intended to put downward pressure on long-term rates—was supposed to expire on June 30. The Fed agreed to keep it going through December, giving Mr. Bernanke time to make sense of the slowing job market and consider further action.

To move forward, Mr. Bernanke needed to corral several colleagues, including regional Fed bank president Dennis Lockhart from Atlanta, who had a vote on the Federal Open Market Committee, the Fed's decision making body. Under Fed rules, four of the 12 regional Fed banks vote on the committee on a rotating basis; a fifth, the New York Fed, always votes.

Audio

Jon Hilsenrath talks about Federal Reserve Chairman Ben Bernanke's plan on The Wall Street Journal This Morning.

00:00 | 02:27

Mr. Lockhart, a former banker who spent much of his career working in emerging markets, said in an interview after the September meeting that he had spent his summer trying to "take stock of the recovery." He debated whether the U.S. had an economy with a 3% growth trend that was hit by bad luck—Europe's financial turmoil, for one. Or was it an economy growing at a 2% annual rate that couldn't sustain job growth and needed help? A string of weak economic data suggested it was the latter.

Like others, Mr. Lockhart had reservations about the effectiveness of Fed policies. Earlier bond buying hadn't yet produced strong growth. The banking system, still damaged by the financial crisis, wasn't delivering credit the way economists expected, given historically low interest rates. Still, Mr. Lockhart thought a program targeting the U.S. housing market might help.

Mr. Bernanke also worked on nonvoters, including Narayana Kocherlakota, who was going through his own transformation.

Several months after becoming president of the Minneapolis Fed in 2009, Mr. Kocherlakota believed the job market had structural problems beyond the reach of monetary policy—for example, too many construction workers who couldn't easily be trained for other jobs.

Mr. Kocherlakota joined Fed skeptics, so-called hawks, who doubted the effectiveness of central bank activism. During his turn as a Fed voter last year, he voted twice against loosening credit, moves championed by Mr. Bernanke.

Though they disagreed on policy, Mr. Bernanke and Mr. Kocherlakota were kindred spirits. Mr. Kocherlakota is a scholarly Ph.D. economist who enrolled at Princeton University at age 15. Mr. Bernanke, equally wonky, was later chairman of Princeton's economics department years later.

Mr. Kocherlakota and Mr. Bernanke exchanged emails over months, debating structural unemployment—the idea that unemployment was caused by mismatches between employer needs and the skills and location of workers. In Mr. Bernanke's view, employers weren't hiring because of weak demand for their goods and services, which Fed policies might help remedy.

"I've learned a lot by talking to him," Mr. Kocherlakota said in an interview after the September meeting. Mr. Bernanke's "thinking is framed by data and models," he said. "It beats coming in there with just your gut."

By summer, Mr. Kocherlakota said, his views about structural unemployment were shifting as he found the evidence less than persuasive. This left an opening for Mr. Bernanke.

As the Fed's August meeting approached, Mr. Bernanke and his inner circle, which included Fed Vice Chairwoman Janet Yellen and New York Fed President William Dudley, were thinking that any Fed action should be a comprehensive and novel package, rather than an incremental step, according to people familiar with their views. They agreed to take time to confirm their views of the U.S. economy and develop consensus for a plan.

The August meeting turned into a policy staging ground. One proposal on an internal list of three policy options was a new bond-buying program, according to people familiar with the list. Mr. Bernanke didn't push. But it allowed a chance for officials to debate the pros and cons of a new program—in effect, a practice run for September.

Some officials argued for more bond buying. Others worried about the Fed turning into too big a player in bond markets, disrupting trading in Treasury securities or mortgage securities. Fed staff wrote a memo ahead of the meeting detailing the market's capacity to absorb central bank purchases of Treasury bonds and mortgage-backed securities. They found that the Fed could carry on a large program for a couple of years if needed without disturbing markets. The finding helped set boundaries for what the Fed could do and for how long.

Hobbled Hiring

When the Federal Reserve launched a new bond-buying program (QE3) in September, it was responding in part to faltering job growth.

Source: Labor Department The Wall Street Journal

The Fed's policy committee emerged from the August meeting with familiar fissures. Opponents of the Fed's easy-money policies said the measures weren't giving the economy much of a lift, while risking future inflation.

Dallas Fed president Richard Fisher said the Fed was like a doctor over-prescribing Ritalin to attention-deficient Wall Street traders. Richmond Fed president Jeffrey Lacker dissented in August for the fifth straight meeting, taking issue with a policy already in place: An assurance the Fed had given that short-term interest rates would remain near zero through late 2014. Philadelphia Fed President Charles Plosser said in an interview that he urged Mr. Bernanke to wait until year-end before deciding on any new programs.

Despite their public disagreements, Fed officials were friendly behind the scenes. Mr. Plosser, who favors tighter credit policies, and the Chicago Fed's Charles Evans, who wants easier credit, play golf together. They joined Mr. Fisher and Mr. Lockhart for a round at the Chevy Chase Country Club after the August meeting.

By late summer, the Fed had made clear it was prepared to act if the economy continued to languish. The question was how?

Many Fed activists wanted a open-ended program of bond purchases that would continue until the economy improved. Among them, some wanted to go big—at least a few hundred billion dollars worth over several months—with a promise to keep buying as needed. Moreover, some wanted to replace Operation Twist with bigger purchases of mortgage-backed securities and Treasurys.

As the September meeting neared, Mr. Bernanke needed to assure colleagues who still had reservations about moving too aggressively. In addition to Mr. Lockhart, Cleveland Fed president Sandra Pianalto had been wavering. She was among those who worried more Fed bond buying could disrupt markets.

Another fence-sitter was Washington-based Fed Governor Elizabeth Duke, a plain-spoken Virginia banker nominated to the Fed board by President George W. Bush in 2007.

Fed officials described the Fed chairman's phone calls as low-pressure conversations. Mr. Bernanke sometimes dialed up colleagues while in his office on weekends, catching them off guard when their phones identified his private number as unknown. He gave updates on the latest staff forecasts, colleagues said. He asked their thoughts and what they could comfortably support, they said.

The calls helped Mr. Bernanke gauge how far he could push his committee. It also won him trust among some of his fiercest opponents, officials said. Nearly all of Mr. Bernanke's colleagues described him as a good listener.

"Even if you disagree with him on the programs, you know your voice has been heard," said Mr. Fisher, one of his opponents. "There is no effort to bully."

Negotiations stepped up in the week before the meeting. Fed staff circulated language for policy options. Officials debated how different approaches would be described in the policy statement, which would be released after the meeting.

Officials at Fed policy meetings typically consider three options: one representing activists who want to use monetary policy aggressively; another supporting officials seeking conservative use; and a middle-ground option that typically prevails.

The premeeting documents this time listed four options, including an aggressive approach favored by activists, and no bond buying, favored by hawks. Among two middle-ground proposals was a compromise that Ms. Duke originated.

Five days before the meeting, Mr. Bernanke took time out for the Washington Nationals—his favorite baseball team was having a dream season. He arrived at the ballpark in a worn Nationals cap and wandered the infield during batting practice.

"I wanted to ask him if I should get some gold and silver but I bit my tongue," said Nationals manager Davey Johnson. Instead, they talked about how Mr. Johnson, a math major, used statistics to manage his lineup.

At the meeting the following week, the Fed adopted the compromise that Ms. Duke helped spur. The Fed would continue Operation Twist through December but add an open-ended mortgage-bond buying program.

Activists got what they most wanted: An open-ended commitment to buy mortgage bonds until the job market improved, with the strong possibility of additional Treasury purchases later. Fence-sitters got a promise to review the plan before deciding to proceed with a bigger program in 2013. Mr. Lockhart said the chance to reassess the program based on inflation and the performance of the job market helped win him over.

With an agreement on bond buying largely in place, Fed officials at the September meeting left unanswered this question: When could they leave growth of the U.S. economy on its own? Mr. Kocherlakota and Mr. Evans failed to get agreement for inflation and unemployment thresholds to determine when to raise short-term rates, according to people familiar with the talks.

"It's an ongoing discussion," Mr. Plosser said. "We will probably continue to work on this."

Write to Jon Hilsenrath at jon.hilsenrath@wsj.com

Corrections & Amplifications
In a photo caption accompanying this article, the first name of Jeffrey Lacker, the president of the Federal Reserve Bank of Richmond, is misspelled as Jeffery.

OPERATING POLICY

Statement Regarding Transactions in Agency Mortgage-Backed Securities and Treasury Securities

September 13, 2012

On September 13, 2012, the Federal Open Market Committee (FOMC) directed the Open Market Trading Desk (the Desk) at the Federal Reserve Bank of New York to begin purchasing additional agency mortgage-backed securities (MBS) at a pace of $40 billion per month. The FOMC also directed the Desk to continue through the end of the year its program to extend the average maturity of its holdings of Treasury securities as announced in June and to maintain its existing policy of reinvesting principal payments from the Federal Reserve's holdings of agency debt and agency MBS in agency MBS.

The FOMC noted that these actions, which together will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year, should put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.

Purchases of Agency MBS

The purchases of additional agency MBS will begin tomorrow, and are expected to total approximately $23 billion over the remainder of September. Going forward, details associated with the additional amount of MBS to be purchased each month will be announced on or around the last business day of the prior month.

Consistent with current practice, the planned amount of purchases associated with reinvestments of principal payments on holdings of agency securities that are anticipated to take place over each monthly period will be announced on or around the eighth business day of the prior month. The next monthly reinvestment purchase amount was also published today, and can be found here: http://www.newyorkfed.org/markets/ambs/ambs_schedule.html.

The Desk anticipates that the agency MBS purchases associated with both the additional asset purchases and the principal reinvestments will likely be concentrated in newly-issued agency MBS in the To-Be-Announced (TBA) market, although the Desk may purchase other agency MBS if market conditions warrant.

Consistent with current practices, all purchases of agency MBS will be conducted with the Federal Reserve's primary dealers through a competitive bidding process and results will be published on the Federal Reserve Bank of New York's website. The Desk will also continue to publish transaction prices for individual operations on a monthly basis.

Frequently Asked Questions associated with these purchases will be released later today.

RELATED NEW YORK FED CONTENT

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Press Release

FEDERAL RESERVE press release

Release Date: September 13, 2012

For immediate release

Information received since the Federal Open Market Committee met in August suggests that economic activity has continued to expand at a moderate pace in recent months. Growth in employment has been slow, and the unemployment rate remains elevated. Household spending has continued to advance, but growth in business fixed investment appears to have slowed. The housing sector has shown some further signs of improvement, albeit from a depressed level. Inflation has been subdued, although the prices of some key commodities have increased recently. Longer-term inflation expectations have remained stable.

Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee is concerned that, without further policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Furthermore, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term likely would run at or below its 2 percent objective.

To support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee agreed today to increase policy accommodation by purchasing additional agency mortgage-backed securities at a pace of $40 billion per month. The Committee also will continue through the end of the year its program to extend the average maturity of its holdings of securities as announced in June, and it is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. These actions, which together will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year, should put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.

The Committee will closely monitor incoming information on economic and financial developments in coming months. If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of agency mortgage-backed securities, undertake additional asset purchases, and employ its other policy tools as appropriate until such improvement is achieved in a context of price stability. In determining the size, pace, and composition of its asset purchases, the Committee will, as always, take appropriate account of the likely efficacy and costs of such purchases.

To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after the economic recovery strengthens. In particular, the Committee also decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015.

Voting for the FOMC monetary policy action were: Ben S. Bernanke, Chairman; William C. Dudley, Vice Chairman; Elizabeth A. Duke; Dennis P. Lockhart; Sandra Pianalto; Jerome H. Powell; Sarah Bloom Raskin; Jeremy C. Stein; Daniel K. Tarullo; John C. Williams; and Janet L. Yellen. Voting against the action was Jeffrey M. Lacker, who opposed additional asset purchases and preferred to omit the description of the time period over which exceptionally low levels for the federal funds rate are likely to be warranted.

Statement Regarding Transactions in Agency Mortgage-Backed Securities and Treasury Securities

Related Information

FOMC meeting calendars and information

Economic projections materials (PDF)

Press conference

Related Current FAQs

MGA
LEADING POLICY INTELLIGENCE

SPECIAL REPORT

OCTOBER 3, 2012

Fed: December Bound

SUMMARY: Though tomorrow's FOMC minutes will highlight the extent of dissension over the efficacy of additional policy easing announced at the September meeting, more is likely after the US presidential elections.

The US Federal Reserve has stepped to the sidelines ahead of the presidential elections, to work on its evolving policymaking framework following September's decision to embark on further significant easing.

The minutes of September's meeting will show, however, that the groundwork for further action in coming months has been laid and that labor market improvement is unlikely to be substantial enough to stave off new Treasury purchases into 2013.

The minutes, due at 2 p.m. EDT tomorrow, will also highlight the intense debate between Federal Open Market Committee participants over the efficacy of using the balance sheet to ease conditions further and reference again, other potential policy tools, including changes to the 2015 predictive guidance.

While the minutes will reveal greater contention over large-scale asset purchases than chairman Ben Bernanke's August Jackson Hole speech did, the tone will clearly convey that economic risks remain tilted to the downside and will lean in the direction of more action.

Assuming economic conditions have not vastly improved, the FOMC is therefore likely to vote as early as its December meeting (at which point there will be a new system-wide forecast round) to cease the Maturity Extension Program (MEP) on schedule and replace it with monthly Treasury bond purchases of around $45 billion -- similar to the current monthly average.

The committee will attach a predictive timeline outlining the duration of these purchases, that will be dependent on the economy recovering substantially. The monthly MBS purchases of around $40 billion launched in September will continue alongside this new program. Tomorrow's minutes will reference a staff paper that concludes the market has capacity to absorb purchases this large for a period of time.

The minutes will also show thedovish voting majority was ready to cease the MEP and replace it with open-ended MBS and Treasury purchases as early as last month. By year end, they are likely to get what they want.

A motley crew

While not highly unusual, within the menu of three policy options finally presented to the FOMC at the meeting were subsets of drafts of potential policy actions, denoted as "primes" in Fed-speak The first main option is usually an extremely hawkish proposal, the last is very dovish and contains elements some participants lightly jest, serve as "trailers" for policy decisions in subsequent meetings. The middle option, though not always the case, is traditionally the chairman's preferred outcome.

In this meeting, there were multiple drafts within the middle proposal including the eventual outcome of September's meeting. The language in these drafts can be tweaked at the meeting by participants determined to have some input.

In the week leading up to the meetings, the options are circulated and can change -- sometimes markedly -- by the time the participants gather around the table. The "Teal Book," which contains the staff forecasts and the policy options, is circulated in two parts. The staff forecasts circulate first and what used to be known as the "Blue Book," which contains the policy options, follows.

It is not unusual for board staff to pull all-nighters working on the final draft of the policy recommendations, once these has been commented on. This one took until after midnight.

Within one of the "primes" was included a proposal to denote conditional guidance around employment and inflation conditions under which the committee might consider withdrawal of policy accommodation and a hike in the Fed funds rate. With Minneapolis Fed president Narayana Kocherlakota's input, a 6.5% (as opposed to the 5.5% later trailed publicly) unemployment threshold was floated in print as a trial balloon.

The leadership knew this would not get anywhere that day but it served to propel forward a vigorous debate between committee participants about assigning potential numerical parameters on conditionality for "lift-off" which has led to some of the recent public expositions of preferred thresholds. It has also implied a degree of inevitability over the Fed deciding to put numerical conditionality around its forward guidance on rates.

So varied were views on the committee going into September's meeting that many participants were unsure of the outcome. Committee members who at the time of the Jackson Hole meeting said they were prepared to dissent over additional action were coaxed into doing more in the ensuing weeks and fell into line behind the chairman by the time the FOMC met.

Swapping calendar lift-off for conditionality

After the September meeting, Kocherlakota publicly suggested the Fed should not consider lift-off as long as the medium-term outlook for inflation does not exceed 2.25%, or until the unemployment rate has fallen below 5.5%. Many Fed system officials believe so-called "full employment" to be between 5.5-6.5%. The Fed's current longer-run goal on unemployment is 5.2-6.0%.

While Kocherlakota's proposal is viewed as far fetched, the policy optionality he emphasizes if either side breaches thresholds to maintain Fed funds at an extraordinarily low level (0-0.25%) depending upon conditions, appeals to the leadership.

The committee has been debating such conditionality for a year and a half already. The ultimate objective of specifying such parameters is to reassure markets that policy will remain highly accommodative for a considerable time after the economy strengthens -- which is currently not expected to occur for four more years. Chicago Fed President Charlie Evans has long advocated what he calls a "7/3 threshold": no rise in fed funds unless unemployment falls below 7% or the outlook for inflation over the medium term exceeds 3%.

As an illustration of the difficulty the committee has had on agreeing parameters, when putting together its principles on longer-run goals an monetary policy strategy earlier this year, it nailed an inflation target but failed on the employment/growth side of the mandate. It settled on a rate of 2% as a longer-run goal for inflation but noted that unemployment was largely determined by non-monetary factors and not directly measurable, rendering a fixed employment goal inappropriate.

Within the meeting options over several months, some versions of numerical conditionality have shown up in the hawkish "A" option, mostly to spur ongoing discussion. While the committee got close to potentially articulating one such version at an earlier meeting, there remained too much opposition to the proposal at the time and participants were too evenly split to form a majority consensus.

Still the momentum behind a collective desire to get away from the 2015 calendar guidance in the FOMC statement will likely force agreement on numerical conditionality before too long.

Analyst: Regina Schleiger

Minutes of the Federal Open Market Committee
September 12–13, 2012

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Wednesday, September 12, 2012, at 10:30 a.m. and continued on Thursday, September 13, 2012, at 8:30 a.m.

PRESENT:
Ben Bernanke, Chairman
William C. Dudley, Vice Chairman
Elizabeth Duke
Jeffrey M. Lacker
Dennis P. Lockhart
Sandra Pianalto
Jerome H. Powell
Sarah Bloom Raskin
Jeremy C. Stein
Daniel K. Tarullo
John C. Williams
Janet L. Yellen

James Bullard, Christine Cumming, Charles L. Evans, Esther L. George, and Eric Rosengren, Alternate Members of the Federal Open Market Committee

Richard W. Fisher, Narayana Kocherlakota, and Charles I. Plosser, Presidents of the Federal Reserve Banks of Dallas, Minneapolis, and Philadelphia, respectively

William B. English, Secretary and Economist
Deborah J. Danker, Deputy Secretary
Matthew M. Luecke, Assistant Secretary
David W. Skidmore, Assistant Secretary
Michelle A. Smith, Assistant Secretary
Scott G. Alvarez, General Counsel
Thomas C. Baxter, Deputy General Counsel
Steven B. Kamin, Economist
David W. Wilcox, Economist

David Altig, Thomas A. Connors, Michael P. Leahy, William Nelson, David Reifschneider, Glenn D. Rudebusch, William Wascher, and John A. Weinberg, Associate Economists

Simon Potter, Manager, System Open Market Account

Nellie Liang, Director, Office of Financial Stability Policy and Research, Board of Governors

Jon W. Faust, Special Adviser to the Board, Office of Board Members, Board of Governors

James A. Clouse, Deputy Director, Division of Monetary Affairs, Board of Governors; Maryann F. Hunter, Deputy Director, Division of Banking Supervision and Regulation, Board of Governors

Andreas Lehnert,[1] Deputy Director, Office of Financial Stability Policy and Research, Board of Governors

Linda Robertson, Assistant to the Board, Office of Board Members, Board of Governors

Seth B. Carpenter, Senior Associate Director, Division of Monetary Affairs, Board of Governors

Thomas Laubach, Senior Adviser, Division of Research and Statistics, Board of Governors; Ellen E. Meade and Joyce K. Zickler, Senior Advisers, Division of Monetary Affairs, Board of Governors

Brian J. Gross,[2] Special Assistant to the Board, Office of Board Members, Board of Governors

Eric M. Engen, Michael G. Palumbo, and Wayne Passmore, Associate Directors, Division of Research and Statistics, Board of Governors

Fabio M. Natalucci, Deputy Associate Director, Division of Monetary Affairs, Board of Governors

Edward Nelson, Section Chief, Division of Monetary Affairs, Board of Governors

Jeremy B. Rudd, Senior Economist, Division of Research and Statistics, Board of Governors

Kelly J. Dubbert, First Vice President, Federal Reserve Bank of Kansas City

[1] Attended Wednesday's session only.
[2] Attended Thursday's session only.

Loretta J. Mester, Harvey Rosenblum, and Daniel G. Sullivan, Executive Vice Presidents, Federal Reserve Banks of Philadelphia, Dallas, and Chicago, respectively

Cletus C. Coughlin, Troy Davig, Mark E. Schweitzer, and Kei-Mu Yi, Senior Vice Presidents, Federal Reserve Banks of St. Louis, Kansas City, Cleveland, and Minneapolis, respectively

Lorie K. Logan, Jonathan P. McCarthy, Giovanni Olivei, and Nathaniel Wuerffel,[3] Vice Presidents, Federal Reserve Banks of New York, New York, Boston, and New York, respectively

Michelle Ezer,[4] Markets Officer, Federal Reserve Bank of New York

[3] Attended after the discussion on potential effects of a large-scale asset purchase program.

[4] Attended the discussion on potential effects of a large-scale asset purchase program.

Potential Effects of a Large-Scale Asset Purchase Program

The staff presented an analysis of various aspects of possible large-scale asset purchase programs, including a comparison of flow-based purchase programs to programs of fixed size. The presentation reviewed the modeling approach used by the staff in estimating the financial and macroeconomic effects of such purchases. While significant uncertainty surrounds such estimates, the presentation indicated that asset purchases could be effective in fostering more rapid progress toward the Committee's objectives. The staff noted that, for a flow-based program, the public's understanding of the conditions under which the Committee would end purchases would shape expectations of the magnitude of the Federal Reserve's holdings of longer-term securities, and thus also influence the financial and economic effects of such a program. The staff also discussed the potential implications of additional asset purchases for the evolution of the Federal Reserve's balance sheet and income. The presentation noted that significant additional asset purchases should not adversely affect the ability of the Committee to tighten the stance of policy when doing so becomes appropriate. In their discussion of the staff presentation, a few participants noted the uncertainty surrounding estimates of the effects of large-scale asset purchases or the need for additional work regarding the implications of such purchases for the normalization of policy.

Developments in Financial Markets and the Federal Reserve's Balance Sheet

The Manager of the System Open Market Account (SOMA) reported on developments in domestic and foreign financial markets during the period since the Federal Open Market Committee (FOMC) met on July 31–August 1, 2012. He also reported on System open market operations, including the ongoing reinvestment into agency-guaranteed mortgage-backed securities (MBS) of principal payments received on SOMA holdings of agency debt and agency-guaranteed MBS as well as the operations related to the maturity extension program authorized at the June 19–20, 2012, FOMC meeting. By unanimous vote, the Committee ratified the Desk's domestic transactions over the intermeeting period. There were no intervention operations in foreign currencies for the System's account over the intermeeting period.

Staff Review of the Economic Situation

The information reviewed at the September 12–13 meeting suggested that economic activity continued to increase at a moderate pace in recent months. Employment rose slowly, and the unemployment rate was still high. Consumer price inflation stayed subdued, while measures of long-run inflation expectations remained stable.

Private nonfarm employment increased in July and August at only a slightly faster pace than in the second quarter, and the rate of decline in government employment eased somewhat. The unemployment rate was 8.1 percent in August, just a bit lower than its average during the first half of the year, and the labor force participation rate edged down further. The share of workers employed part time for economic reasons remained large, and the rate of long-duration unemployment continued to be high. Indicators of job openings and firms' hiring plans were little changed, on balance, and initial claims for unemployment insurance were essentially flat over the intermeeting period.

Manufacturing production increased at a faster pace in July than in the second quarter, and the rate of manufacturing capacity utilization rose slightly. However, automakers' schedules indicated that the pace of motor vehicle assemblies would be somewhat lower in the coming months than it was in July, and broader indicators of manufacturing activity, such as the diffusion indexes of new orders from the national and regional manufacturing surveys, generally remained quite muted

in recent months at levels consistent with only meager gains in factory output in the near term.

Following a couple of months when real personal consumption expenditures (PCE) were roughly flat, spending increased in July, and the gains were fairly widespread across categories of consumer goods and services. Incoming data on factors that tend to support household spending were somewhat mixed. Real disposable incomes increased solidly in July, boosted in part by lower energy prices. The continued rise in house values through July, and the increase in equity prices during the intermeeting period, suggested that households' net worth may have improved a little in recent months. However, consumer sentiment remained more downbeat in August than earlier in the year.

Housing market conditions continued to improve, but construction activity was still at a low level, reflecting the restraint imposed by the substantial inventory of foreclosed and distressed properties and by tight credit standards for mortgage loans. Starts of new single-family homes declined in July, but permits increased, which pointed to further gains in single-family construction in the coming months. Both starts and permits for new multifamily units rose in July. Home prices increased for the sixth consecutive month in July, and sales of both new and existing homes also rose.

Real business expenditures on equipment and software appeared to be decelerating. Both nominal shipments and new orders for nondefense capital goods excluding aircraft declined in July, and the backlog of unfilled orders decreased. Other forward-looking indicators, such as downbeat readings from surveys of business conditions and capital spending plans, also pointed toward only muted increases in real expenditures for business equipment in the near term. Nominal business spending for new nonresidential construction declined in July after only edging up in the second quarter. Inventories in most industries looked to be roughly aligned with sales in recent months.

Real federal government purchases appeared to decrease further, as data for nominal federal spending in July pointed to continued declines in real defense expenditures. Real state and local government purchases also appeared to still be trending down. State and local government payrolls contracted in July and August, although at a somewhat slower rate than in the second quarter, and nominal construction spending by these governments decreased slightly in July.

The U.S. international trade deficit was about unchanged in July after narrowing significantly in June. Exports declined in July, as decreases in the exports of industrial supplies, automotive products, and consumer goods were only partially offset by greater exports of agricultural products. Imports also declined in July, reflecting lower imports of capital goods and petroleum products and somewhat higher imports of automotive products. The trade data for July pointed toward real net exports having a roughly neutral effect on the growth of U.S. real gross domestic product (GDP) in the third quarter after they made a positive contribution to the increase in real GDP in the second quarter.

Overall U.S. consumer prices, as measured by the PCE price index, were flat in July. Consumer food prices were essentially unchanged, but the substantial increases in spot and futures prices of farm commodities in recent months, reflecting the effects of the drought in the Midwest, pointed toward some temporary upward pressures on retail food prices later this year. Consumer energy prices declined slightly in July, but survey data indicated that retail gasoline prices rose in August. Consumer prices excluding food and energy also were flat in July. Near-term inflation expectations from the Thomson Reuters/University of Michigan Surveys of Consumers increased somewhat in August, while longer-term inflation expectations in the survey edged up but remained within the narrow range that they have occupied for many years. Long-run inflation expectations from the Federal Reserve Bank of Philadelphia Survey of Professional Forecasters continued to be stable in the third quarter.

Measures of labor compensation indicated that increases in nominal wages remained modest. The rise in compensation per hour in the nonfarm business sector was muted over the year ending in the second quarter, and with small gains in productivity, unit labor costs rose only slightly. The employment cost index increased a little more slowly than the measure of compensation per hour over the same period. More recently, the gains in average hourly earnings for all employees in July and August were small.

Overall foreign economic growth appeared to be subdued in the third quarter after slowing in the second quarter. In the euro area, policy developments contributed to an improvement in financial conditions; recent indicators pointed to further decreases in production, however, and both business and consumer confidence continued to decline. Indicators of activity in the emerging market economies generally weakened. In

China, export growth slowed, while retail sales and investment spending changed little. The rate of economic growth rose in Brazil but was still sluggish, and increases in economic activity in Mexico were below the faster pace seen earlier in the year. Consistent with the slowing in foreign economic growth, readings on foreign inflation continued to moderate.

Staff Review of the Financial Situation

Sentiment in financial markets improved somewhat since the time of the August FOMC meeting. Investors' concerns about the situation in Europe seemed to ease somewhat, and market participants also appeared to have increased their expectations of additional monetary policy accommodation.

On balance, the nominal Treasury yield curve steepened over the intermeeting period, with yields on longer-dated Treasury securities rising notably. Following the August FOMC statement, Treasury yields moved up, reportedly in part because investors had factored in some probability that the anticipated liftoff date for the federal funds rate in the forward-guidance language would be moved back at that meeting. Treasury yields subsequently rose further as concerns about the situation in the euro area moderated. Later in the period, Treasury yields retraced some of their earlier gains as market participants' expectations of additional policy action increased following the release of the minutes of the August FOMC meeting, the Chairman's speech at the economic symposium in Jackson Hole, and the weaker-than-expected August employment report. On net, the expected path of the federal funds rate derived from overnight index swap rates was little changed. Indicators of inflation expectations derived from nominal and inflation-protected Treasury securities edged up over the period but stayed in the ranges observed over recent quarters.

Conditions in unsecured short-term dollar funding markets remained stable over the intermeeting period. In secured funding markets, conditions were also little changed.

In the September Senior Credit Officer Opinion Survey on Dealer Financing Terms, respondents reported no significant changes in credit terms for important classes of counterparties over the past three months, although a few noted a slight easing in terms for some clients. The use of leverage by hedge funds was reported to have remained basically unchanged. However, respondents noted greater demand for funding of agency and non-agency residential MBS.

Broad price indexes for U.S. equities rose moderately, on net, over the intermeeting period, prompted by generally better-than-expected readings on economic activity released early in the period, somewhat reduced concerns about the situation in Europe, and some additional anticipation of monetary policy easing later in the period. Option-implied volatility on the S&P 500 index fell in early August to levels not seen since the middle of 2007; it subsequently partially retraced. Equity prices for large domestic banks rose about in line with the broad equity price indexes, and credit default swap (CDS) spreads for the largest bank holding companies continued to move down.

Yields on investment-grade corporate bonds were little changed at near-record low levels over the intermeeting period, while yields on speculative-grade corporate bonds edged down. The spread of yields on corporate bonds over those on comparable-maturity Treasury securities narrowed. Net debt issuance by nonfinancial firms continued to be strong over the period. Investment- and speculative-grade bond issuance increased in August from an already robust pace in preceding months, and commercial and industrial (C&I) loans rose further. In the syndicated leveraged loan market, gross issuance of institutional loans continued to be solid in July and August. Issuance of collateralized loan obligations remained on pace to post its strongest year since 2007. The rate of gross public equity issuance by nonfinancial firms increased slightly in August but was still at a subdued level.

Financial conditions in the commercial real estate (CRE) market were still somewhat strained against a backdrop of weak fundamentals and tight underwriting standards. Nevertheless, issuance of commercial mortgage-backed securities continued at a solid pace over the intermeeting period.

Mortgage rates remained at very low levels over the intermeeting period. Refinancing activity increased but was still restrained by tight underwriting conditions, capacity constraints at mortgage originators, and low levels of home equity. Nonrevolving consumer credit continued to expand briskly in June, largely due to robust growth in student loans originated by the federal government, while revolving credit remained subdued. Delinquency rates for consumer credit were still low, mostly reflecting a shift in lending toward higher-credit-quality borrowers.

Gross issuance of long-term municipal bonds picked up in August from the subdued pace in July, but net issuance continued to decline. CDS spreads for debt

issued by state governments moved lower over the intermeeting period, and the ratio of yields on long-term general obligation municipal bonds to yields on comparable-maturity Treasury securities decreased, on balance.

Bank credit continued to expand at a moderate pace over the intermeeting period, as growth in C&I loans remained brisk while CRE and home equity loans both trended down further. The August Survey of Terms of Business Lending indicated that overall interest-rate spreads on C&I loans were little changed; spreads on loans drawn on recently established commitments narrowed materially, although they remained wide.

M2 growth was rapid in July, likely reflecting investors' heightened demand for safe and liquid assets amid concerns about the situation in Europe, but it slowed to a moderate pace in August as those concerns eased somewhat. The monetary base rose in July and August as reserve balances and currency expanded.

Sentiment improved in foreign financial markets as the European Central Bank (ECB) outlined a plan to make additional sovereign bond purchases in conjunction with the European Financial Stability Facility and the European Stability Mechanism. Spreads of shorter-term yields on peripheral euro-area sovereign bonds over those on comparable-maturity German bunds declined substantially over the period. The staff's broad nominal index of the foreign exchange value of the dollar declined and benchmark sovereign yields in the major advanced foreign economies increased as safe-haven demands eased with the lessening of concerns about the European situation. Most global benchmark indexes for equity prices moved up, and the equity prices of European banks rose sharply. Funding conditions for euro-area banks improved, although these conditions remained fragile, and draws on the Federal Reserve's liquidity swap facility with the ECB fell.

The staff also reported on potential risks to financial stability, including those owing to the developments in Europe and to the current environment of low interest rates. Although the support for economic activity provided by low interest rates enhances financial stability, low interest rates also could eventually contribute to excessive borrowing or risk-taking and possibly leave some aspects of the financial system vulnerable to a future rise in interest rates. The staff surveyed a wide range of asset markets and financial institutions for signs of excessive valuations, leverage, or risk-taking that could pose systemic risks. Valuations for broad asset classes did not appear stretched, or supported by excessive leverage. The staff also did not find evidence that excessive risk-taking was widespread, although such behavior had appeared in a few smaller and less liquid markets.

Staff Economic Outlook

In the economic projection prepared by the staff for the September FOMC meeting, the forecast for real GDP growth in the near term was broadly similar, on balance, to the previous projection. The near-term forecast incorporated a larger negative effect of the drought on farm output in the second half of this year than the staff previously anticipated, but this effect was mostly offset by the staff's expectation of a smaller drag from net exports. The staff's medium-term projection for real GDP growth, which was conditioned on the assumption of no changes in monetary policy, was revised up a little, mostly reflecting a slight improvement in the outlook for the European situation and a somewhat higher projected path for equity prices. Nevertheless, with fiscal policy assumed to be tighter next year than this year, the staff expected that increases in real GDP would not materially exceed the growth of potential output in 2013. In 2014, economic activity was projected to accelerate gradually, supported by an easing in fiscal policy restraint, increases in consumer and business confidence, further improvements in financial conditions and credit availability, and accommodative monetary policy. The expansion in economic activity was expected to narrow the significant margin of slack in labor and product markets only slowly over the projection period, and the unemployment rate was anticipated to still be elevated at the end of 2014.

The staff's near-term forecast for inflation was revised up from the projection prepared for the August FOMC meeting, reflecting increases in consumer energy prices that were greater than anticipated. However, the staff's projection for inflation over the medium term was little changed. With crude oil prices expected to gradually decline from their current levels, the boost to retail food prices from the drought anticipated to be only temporary and comparatively small, long-run inflation expectations assumed to remain stable, and substantial resource slack persisting over the projection period, the staff continued to forecast that inflation would be subdued through 2014.

The staff viewed the uncertainty around the forecast for economic activity as elevated and the risks skewed to the downside, largely reflecting concerns about the situation in Europe and the possibility of a more severe

tightening in U.S. fiscal policy than anticipated. Although the staff saw the outlook for inflation as uncertain, the risks were viewed as balanced and not unusually high.

Participants' Views on Current Conditions and the Economic Outlook

In conjunction with this FOMC meeting, meeting participants—the 7 members of the Board of Governors and the presidents of the 12 Federal Reserve Banks, all of whom participate in the deliberations of the FOMC—submitted their assessments of real output growth, the unemployment rate, inflation, and the target federal funds rate for each year from 2012 through 2015 and over the longer run, under each participants' judgment of appropriate monetary policy. The longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge, over time, under appropriate monetary policy and in the absence of further shocks to the economy. These economic projections and policy assessments are described in the Summary of Economic Projections, which is attached as an addendum to these minutes.

In their discussion of the economic situation and outlook, meeting participants regarded the information received during the intermeeting period as indicating that economic activity had continued to expand at a moderate pace in recent months. However, recent gains in employment were small and the unemployment rate remained high. Although consumer spending had continued to advance, growth in business fixed investment appeared to have slowed. The housing sector showed some further signs of improvement, albeit from a depressed level. Consumer price inflation had been subdued despite recent increases in the prices of some key commodities, and longer-term inflation expectations had remained stable.

Regarding the economic outlook, participants generally agreed that the pace of the economic recovery would likely remain moderate over coming quarters but would pick up over the 2013–15 period. In the near term, the drought in the Midwest was expected to weigh on economic growth. Moreover, participants observed that the pace of economic recovery would likely continue to be held down for some time by persistent headwinds, including continued weakness in the housing market, ongoing household sector deleveraging, still-tight credit conditions for some households and businesses, and fiscal consolidation at all levels of government. Many participants also noted that a high level of uncertainty regarding the European fiscal and banking crisis and the outlook for U.S. fiscal and regulatory policies was weighing on confidence, thereby restraining household and business spending. However, others questioned the role of uncertainty about policy as a factor constraining aggregate demand. In addition, participants still saw significant downside risks to the outlook for economic growth. Prominent among these risks were a possible intensification of strains in the euro zone, with potential spillovers to U.S. financial markets and institutions and thus to the broader U.S. economy; a larger-than-expected U.S. fiscal tightening; and the possibility of a further slowdown in global economic growth. A few participants, however, mentioned the possibility that economic growth could be more rapid than currently anticipated, particularly if major sources of uncertainty were resolved favorably or if faster-than-expected advances in the housing sector led to improvements in household balance sheets, increased confidence, and easier credit conditions. Participants' forecasts for economic activity, which in most cases were conditioned on an assumption of additional, near-term monetary policy accommodation, were also associated with an outlook for the unemployment rate to remain close to recent levels through 2012 and then to decline gradually toward levels judged to be consistent with the Committee's mandate.

In the household sector, incoming data on retail sales were somewhat stronger than expected. Participants noted, however, that households were still in the process of deleveraging, confidence was low, and consumers appeared to remain particularly pessimistic about the prospects for the future, raising doubts that the somewhat stronger pace of spending would persist. Although the level of activity in the housing sector remained low, the somewhat faster pace of home sales and construction provided some encouraging signs of improvement. A number of participants also observed that house prices were rising. It was noted that such increases, coupled with historically low mortgage rates, could lead to a stronger upturn in housing activity, although constraints on the capacity for loan origination and still-tight credit terms for some borrowers continued to weigh on mortgage lending.

Business contacts in many parts of the country were reported to be highly uncertain about the outlook for the economy and for fiscal and regulatory policies. Although firms' balance sheets were generally strong, these uncertainties had led them to be particularly cautious and to remain reluctant to hire or expand capacity. Reports on manufacturing activity were mixed, with production related to autos and housing the most not-

able areas of relative strength. In one District, business surveys pointed to further growth; however, readings on forward-looking indicators of orders around the country were less positive. In addition, business contacts noted that export demand was showing signs of weakness as a result of the slowdown in economic activity in Europe. The energy sector continued to expand. In the agricultural sector, high grain prices and crop insurance payments were supporting farm incomes, helping offset declines in production and reduced profits on livestock. The drought was expected to reduce farm inventories and have a transitory impact on broader measures of economic growth.

Participants generally expected that fiscal policy would continue to be a drag on economic activity over coming quarters. In addition to ongoing weakness in spending at the federal, state, and local government levels, uncertainties about tax and spending policies reportedly were restraining business decisionmaking. Participants also noted that if an agreement was not reached to tackle the expiring tax cuts and scheduled spending reductions, a sharp consolidation of fiscal policy would take place at the beginning of 2013.

The available indicators pointed to continued weakness in overall labor market conditions. Growth in employment had been disappointing, with the average monthly increases in payrolls so far this year below last year's pace and below the pace that would be required to make significant progress in reducing the unemployment rate. The unemployment rate declined around the turn of the year but had not fallen significantly since then. In addition, the labor force participation rate and employment-to-population ratios were at or near post-recession lows.

Meeting participants again discussed the extent of slack in labor markets. A few participants reiterated their view that the persistently high level of unemployment reflected the effect of structural factors, including mismatches across and within sectors between the skills of the unemployed and those demanded in sectors in which jobs were currently available. It was also suggested that there was an ongoing process of polarization in the labor market, with the share of job opportunities in middle-skill occupations continuing to decline while the shares of low and high skill occupations increased. Both of these views would suggest a lower level of potential output and thus reduced scope for combating unemployment with additional monetary policy stimulus. Several participants, while acknowledging some evidence of structural changes in the labor market, stated again that weak aggregate demand was the principal reason for the high unemployment rate. They saw slack in resource utilization as remaining wide, indicating an important role for additional policy accommodation. Several participants noted the risk that continued high levels of unemployment, even if initially cyclical, might ultimately induce adverse structural changes. In particular, they expressed concerns about the risk that the exceptionally high level of long-term unemployment and the depressed level of labor participation could ultimately lead to permanent negative effects on the skills and prospects of those without jobs, thereby reducing the longer-run normal level of employment and potential output.

Sentiment in financial markets improved notably during the intermeeting period. Participants indicated that recent decisions by the ECB helped ease investors' anxiety about the near-term prospects for the euro. However, participants also observed that significant risks related to the euro-area banking and fiscal crisis remained, and that a number of important issues would have to be resolved in order to achieve further progress toward a comprehensive solution to the crisis. Participants noted that indicators of financial stress in the United States were not especially high and overall conditions in U.S. financial markets remained favorable. Longer-term interest rates were low and supportive of economic growth, while equity prices had risen. One participant noted that, while there were few current signs of excessive risk-taking, low interest rates could ultimately lead to financial imbalances that would be challenging to detect before they became serious problems.

The incoming information on inflation over the intermeeting period was largely in line with participants' expectations. Despite recent increases in the prices of some key commodities, consumer price inflation remained subdued. With longer-term inflation expectations stable and the unemployment rate elevated, participants generally anticipated that inflation over the medium run would likely run at or below the 2 percent rate that the Committee judges to be most consistent with its mandate. Most participants saw the risks to the outlook for inflation as roughly balanced. A few participants felt that maintaining a highly accommodative stance of monetary policy over an extended period could unmoor longer-term inflation expectations and, against a backdrop of higher energy and commodity prices, posed upside risks to inflation. Other participants, by contrast, saw inflation risks as tilted to the

downside, given their expectations for sizable and persistent resource slack.

Participants again exchanged views on the likely benefits and costs of a new large-scale asset purchase program. Many participants anticipated that such a program would provide support to the economic recovery by putting downward pressure on longer-term interest rates and promoting more accommodative financial conditions. A number of participants also indicated that it could lift consumer and business confidence by emphasizing the Committee's commitment to continued progress toward its dual mandate. In addition, it was noted that additional purchases could reinforce the Committee's forward guidance regarding the federal funds rate. Participants discussed the effectiveness of purchases of Treasury securities relative to purchases of agency MBS in easing financial conditions. Some participants suggested that, all else being equal, MBS purchases could be preferable because they would more directly support the housing sector, which remains weak but has shown some signs of improvement of late. One participant, however, objected that purchases of MBS, when compared to purchases of longer-term Treasury securities, would likely result in higher interest rates for many borrowers in other sectors. A number of participants highlighted the uncertainty about the overall effects of additional purchases on financial markets and the real economy. Some participants thought past purchases were useful because they were conducted during periods of market stress or heightened deflation risk and were less confident of the efficacy of additional purchases under present circumstances. A few expressed skepticism that additional policy accommodation could help spur an economy that they saw as held back by uncertainties and a range of structural issues. In discussing the costs and risks that such a program might entail, several participants reiterated their concern that additional purchases might complicate the Committee's efforts to withdraw monetary policy accommodation when it eventually became appropriate to do so, raising the risk of undesirably high inflation in the future and potentially unmooring inflation expectations. One participant noted that an extended period of accommodation resulting from additional asset purchases could lead to excessive risk-taking on the part of some investors and so undermine financial stability over time. The possible adverse effects of large purchases on market functioning were also noted. However, most participants thought these risks could be managed since the Committee could make adjustments to its purchases, as needed, in response to economic developments or to changes in its assessment of their efficacy and costs.

Participants also discussed issues related to the provision of forward guidance regarding the future path of the federal funds rate. It was noted that clear communication and credibility allow the central bank to help shape the public's expectations about policy, which is crucial to managing monetary policy when the federal funds rate is at its effective lower bound. A number of participants questioned the effectiveness of continuing to use a calendar date to provide forward guidance, noting that a change in the calendar date might be interpreted pessimistically as a downgrade of the Committee's economic outlook rather than as conveying the Committee's determination to support the economic recovery. If the public interpreted the statement pessimistically, consumer and business confidence could fall rather than rise. Many participants indicated a preference for replacing the calendar date with language describing the economic factors that the Committee would consider in deciding to raise its target for the federal funds rate. Participants discussed the benefits of such an approach, including the potential for enhanced effectiveness of policy through greater clarity regarding the Committee's future behavior. That approach could also bolster the stimulus provided by the System's holdings of longer-term securities. It was noted that forward guidance along these lines would allow market expectations regarding the federal funds rate to adjust automatically in response to incoming data on the economy. Many participants thought that more-effective forward guidance could be provided by specifying numerical thresholds for labor market and inflation indicators that would be consistent with maintaining the federal funds rate at exceptionally low levels. However, reaching agreement on specific thresholds could be challenging given the diversity of participants' views, and some were reluctant to specify explicit numerical thresholds out of concern that such thresholds would necessarily be too simple to fully capture the complexities of the economy and the policy process or could be incorrectly interpreted as triggers prompting an automatic policy response. In addition, numerical thresholds could be confused with the Committee's longer-term objectives, and so undermine the Committee's credibility. At the conclusion of the discussion, most participants agreed that the use of numerical thresholds could be useful to provide more clarity about the conditionality of the forward guidance but thought that further work would be needed to address the related communications challenges.

Committee Policy Action

Committee members saw the information received over the intermeeting period as suggesting that economic activity had continued to expand at a moderate pace in recent months. However, growth in employment had been slow, and almost all members saw the unemployment rate as still elevated relative to levels that they viewed as consistent with the Committee's mandate. Members generally judged that without additional policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Moreover, while the sovereign and banking crisis in Europe had eased some recently, members still saw strains in global financial conditions as posing significant downside risks to the economic outlook. The possibility of a larger-than-expected fiscal tightening in the United States and slower global growth were also seen as downside risks. Inflation had been subdued, even though the prices of some key commodities had increased recently. Members generally continued to anticipate that, with longer-term inflation expectations stable and given the existing slack in resource utilization, inflation over the medium term would run at or below the Committee's longer-run objective of 2 percent.

In their discussion of monetary policy for the period ahead, members generally expressed concerns about the slow pace of improvement in labor market conditions and all members but one agreed that the outlook for economic activity and inflation called for additional monetary accommodation. Members agreed that such accommodation should be provided through both a strengthening of the forward guidance regarding the federal funds rate and purchases of additional agency MBS at a pace of $40 billion per month. Along with the ongoing purchases of $45 billion per month of longer-term Treasury securities under the maturity extension program announced in June, these purchases will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year, and should put downward pressure on longer-term interest rates, support mortgage markets, and help make broader financial conditions more accommodative. Members also agreed to maintain the Committee's existing policy of reinvesting principal payments from its holdings of agency debt and agency MBS into agency MBS. The Committee agreed that it would closely monitor incoming information on economic and financial developments in coming months, and that if the outlook for the labor market did not improve substantially, it would continue its purchases of agency MBS, undertake additional asset purchases, and employ its other policy tools as appropriate until such improvement is achieved in a context of price stability. This flexible approach was seen as allowing the Committee to tailor its policy response over time to incoming information while incorporating conditional features that clarified the Committee's intention to improve labor market conditions, thereby enhancing the effectiveness of the action by helping to bolster business and consumer confidence. While members generally viewed the potential risks associated with these purchases as manageable, the Committee agreed that in determining the size, pace, and composition of its asset purchases, it would, as always, take appropriate account of the likely efficacy and costs of such purchases. With regard to the forward guidance, the Committee agreed on an extension through mid-2015, in conjunction with language in the statement indicating that it expects that a highly accommodative stance of policy will remain appropriate for a considerable time after the economic recovery strengthens. That new language was meant to clarify that the maintenance of a very low federal funds rate over that period did not reflect an expectation that the economy would remain weak, but rather reflected the Committee's intention to support a stronger economic recovery. One member dissented from the policy decision, on the grounds that he opposed additional asset purchases and preferred to omit the calendar date from the forward guidance; in his view, it would be better to use qualitative language to describe the factors that would influence the Committee's decision to increase the target federal funds rate.

At the conclusion of the discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> "The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. The Committee directs the Desk to continue the maturity extension program it announced in June to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about $267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining

maturities of approximately 3 years or less with a total face value of about $267 billion. For the duration of this program, the Committee directs the Desk to suspend its policy of rolling over maturing Treasury securities into new issues. The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. The Desk is also directed to begin purchasing agency mortgage-backed securities at a pace of about $40 billion per month. The Committee directs the Desk to engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability."

The vote encompassed approval of the statement below to be released at 12:30 p.m.:

"Information received since the Federal Open Market Committee met in August suggests that economic activity has continued to expand at a moderate pace in recent months. Growth in employment has been slow, and the unemployment rate remains elevated. Household spending has continued to advance, but growth in business fixed investment appears to have slowed. The housing sector has shown some further signs of improvement, albeit from a depressed level. Inflation has been subdued, although the prices of some key commodities have increased recently. Longer-term inflation expectations have remained stable.

Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee is concerned that, without further policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Furthermore, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term likely would run at or below its 2 percent objective.

To support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee agreed today to increase policy accommodation by purchasing additional agency mortgage-backed securities at a pace of $40 billion per month. The Committee also will continue through the end of the year its program to extend the average maturity of its holdings of securities as announced in June, and it is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. These actions, which together will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year, should put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.

The Committee will closely monitor incoming information on economic and financial developments in coming months. If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of agency mortgage-backed securities, undertake additional asset purchases, and employ its other policy tools as appropriate until such improvement is achieved in a context of price stability. In determining the size, pace, and composition of its asset purchases, the Committee will, as always, take appropriate account of the likely efficacy and costs of such purchases.

To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after the economic recovery strengthens. In particular, the Committee also decided today to keep the target range for the federal funds rate at 0 to ¼ percent and currently anticipates that exceptionally low levels for the

federal funds rate are likely to be warranted at least through mid-2015."

Voting for this action: Ben Bernanke, William C. Dudley, Elizabeth Duke, Dennis P. Lockhart, Sandra Pianalto, Jerome H. Powell, Sarah Bloom Raskin, Jeremy C. Stein, Daniel K. Tarullo, John C. Williams, and Janet L. Yellen.

Voting against this action: Jeffrey M. Lacker.

Mr. Lacker dissented because he believed that additional monetary stimulus at this time was unlikely to result in a discernible improvement in economic growth without also causing an unwanted increase in inflation. Moreover, he expressed his opposition to the purchase of more MBS, because he viewed it as inappropriate for the Committee to choose a particular sector of the economy to support; purchases of Treasury securities instead would have avoided this effect. Finally, he preferred to omit the description of the time period over which exceptionally low levels for the federal funds rate were likely to be warranted.

Consensus Forecast Experiment

In light of the discussion at the previous FOMC meeting, the subcommittee on communications developed a second experimental exercise intended to shed light on the feasibility and desirability of constructing an FOMC consensus forecast. At this meeting, participants discussed possible formulations of the monetary policy assumptions on which to condition an FOMC consensus forecast and alternative approaches for participants to express their endorsement of the consensus forecast. In conclusion, participants agreed to have a broad discussion of the experiences gathered from the two experimental exercises in conjunction with the October FOMC meeting.

It was agreed that the next meeting of the Committee would be held on Tuesday–Wednesday, October 23–24, 2012. The meeting adjourned at 12:10 p.m. on September 13, 2012.

Notation Vote

By notation vote completed on August 21, 2012, the Committee unanimously approved the minutes of the FOMC meeting held on July 31–August 1, 2012.

William B. English
Secretary

Summary of Economic Projections

In conjunction with the September 12–13, 2012, Federal Open Market Committee (FOMC) meeting, meeting participants—the 7 members of the Board of Governors and the 12 presidents of the Federal Reserve Banks, all of whom participate in the deliberations of the FOMC—submitted their assessments, under each participant's judgment of appropriate monetary policy, of real output growth, the unemployment rate, inflation, and the target federal funds rate for each year from 2012 through 2015 and over the longer run. These assessments were based on information available at the time of the meeting and participants' individual assumptions about the factors likely to affect economic outcomes. The longer-run projections represent each participant's judgment of the rate to which each variable would be expected to converge, over time, under appropriate monetary policy and in the absence of further shocks to the economy. "Appropriate monetary policy" is defined as the future path of policy that participants deem most likely to foster outcomes for economic activity and inflation that best satisfy their individual interpretations of the Federal Reserve's objectives of maximum employment and stable prices.

Overall, the assessments that FOMC participants submitted in September indicated that, under appropriate monetary policy, the pace of economic recovery over the 2012–15 period would gradually pick up and inflation would remain subdued (table 1 and figure 1). Participants judged that the growth rate of real gross domestic product (GDP) would increase somewhat in 2013 and that economic growth in 2014 and 2015 would modestly exceed participants' estimates of the longer-run sustainable rate of growth, while the unemployment rate would decline gradually through 2015. Participants projected that inflation, as measured by the annual change in the price index for personal consumption expenditures (PCE), would run close to or below the FOMC's longer-run inflation objective of 2 percent.

As shown in figure 2, most participants judged that highly accommodative monetary policy was likely to be warranted over the next few years. In particular, 13 participants thought that it would be appropriate for the first increase in the target federal funds rate to occur during 2015 or later. The majority of participants judged that appropriate monetary policy would involve a decision by the Committee, at the September meeting or before long, to undertake significant additional asset purchases.

As in June, participants in September judged the uncertainty associated with the outlook for real activity and the unemployment rate to be unusually high compared with historical norms, with the risks weighted mainly toward slower economic growth and a higher unemployment rate. While a number of participants viewed the uncertainty surrounding their projections for inflation to be unusually high in comparison with historical

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, September 2012

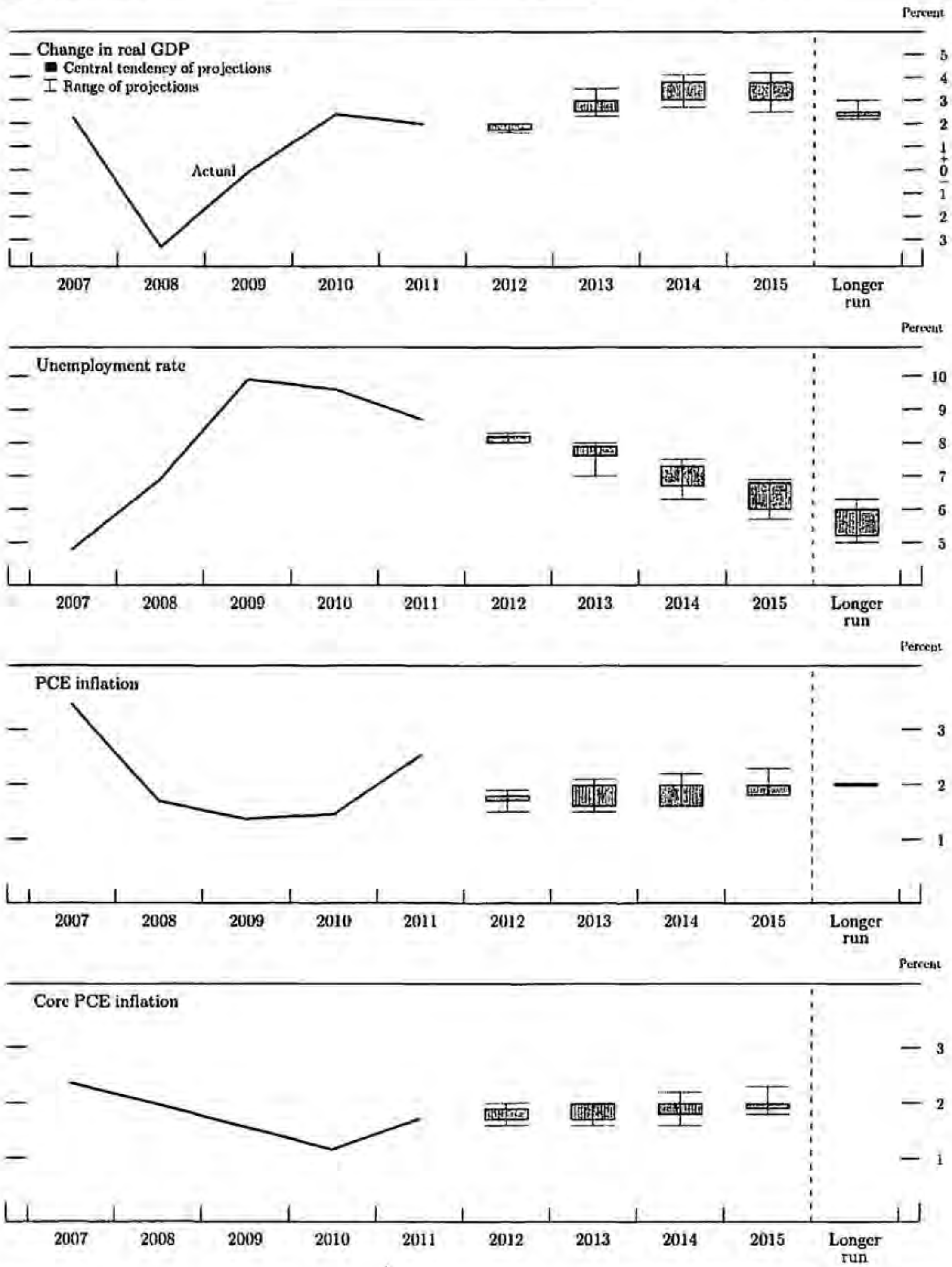
Percent

Variable	Central tendency[1]					Range[2]				
	2012	2013	2014	2015	Longer run	2012	2013	2014	2015	Longer run
Change in real GDP	1.7 to 2.0	2.5 to 3.0	3.0 to 3.8	3.0 to 3.8	2.3 to 2.5	1.6 to 2.0	2.3 to 3.5	2.7 to 4.1	2.5 to 4.2	2.2 to 3.0
June projection	1.9 to 2.4	2.2 to 2.8	3.0 to 3.5	n.a.	2.3 to 2.5	1.6 to 2.5	2.2 to 3.5	2.8 to 4.0	n.a.	2.2 to 3.0
Unemployment rate	8.0 to 8.2	7.6 to 7.9	6.7 to 7.3	6.0 to 6.8	5.2 to 6.0	8.0 to 8.3	7.0 to 8.0	6.3 to 7.5	5.7 to 6.9	5.0 to 6.3
June projection	8.0 to 8.2	7.5 to 8.0	7.0 to 7.7	n.a.	5.2 to 6.0	7.8 to 8.4	7.0 to 8.1	6.3 to 7.7	n.a.	4.9 to 6.3
PCE inflation	1.7 to 1.8	1.6 to 2.0	1.6 to 2.0	1.8 to 2.0	2.0	1.5 to 1.9	1.5 to 2.1	1.6 to 2.2	1.8 to 2.3	2.0
June projection	1.2 to 1.7	1.5 to 2.0	1.5 to 2.0	n.a.	2.0	1.2 to 2.0	1.5 to 2.1	1.5 to 2.2	n.a.	2.0
Core PCE inflation[3]	1.7 to 1.9	1.7 to 2.0	1.8 to 2.0	1.9 to 2.0		1.6 to 2.0	1.6 to 2.0	1.6 to 2.2	1.8 to 2.3	
June projection	1.7 to 2.0	1.6 to 2.0	1.6 to 2.0	n.a.		1.7 to 2.0	1.4 to 2.1	1.5 to 2.2	n.a.	

NOTE: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The June projections were made in conjunction with the meeting of the Federal Open Market Committee on June 19–20, 2012.

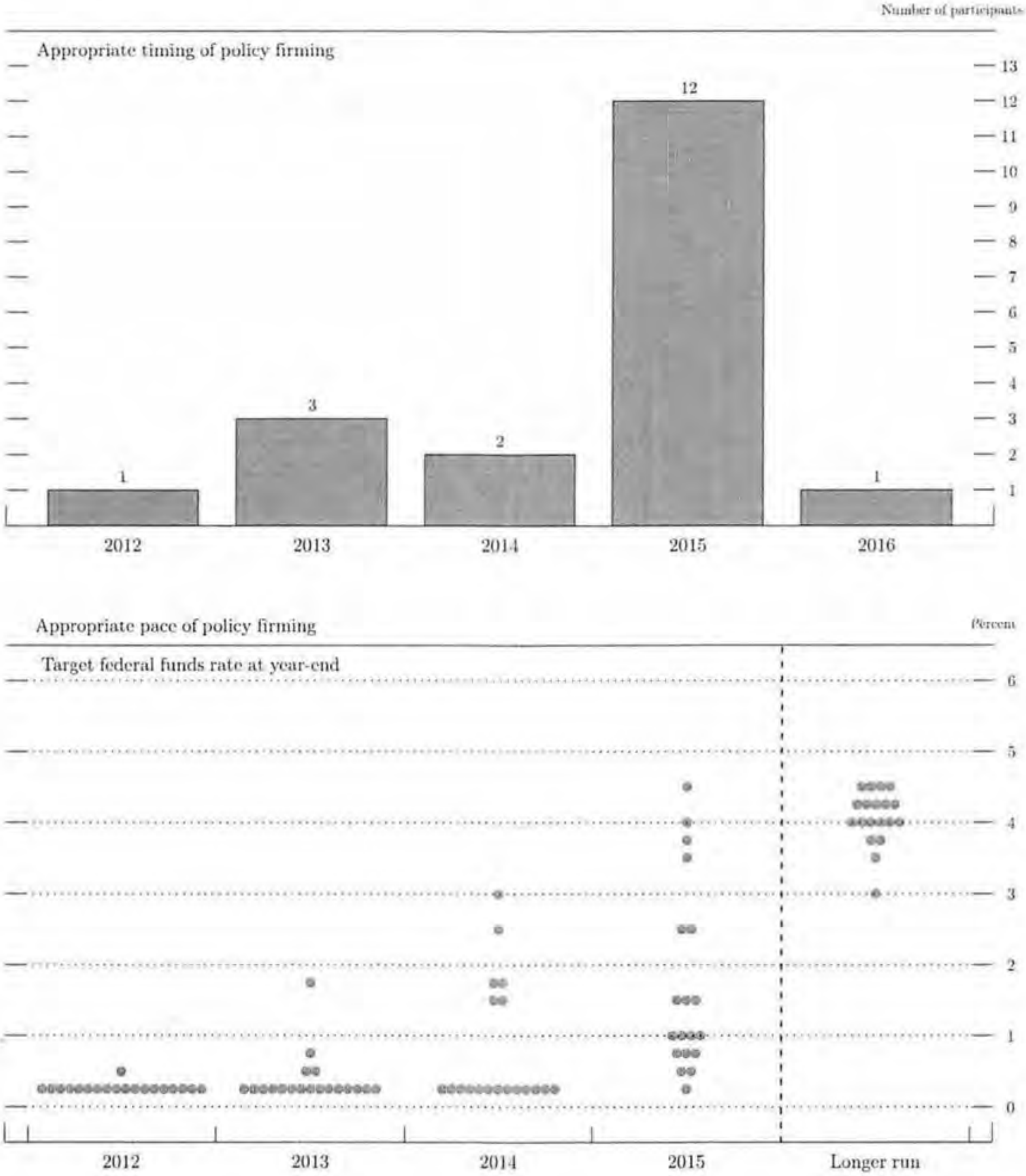
1. The central tendency excludes the three highest and three lowest projections for each variable in each year.
2. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.
3. Longer-run projections for core PCE inflation are not collected.

Figure 1. Central tendencies and ranges of economic projections, 2012–15 and over the longer run



NOTE: Definitions of variables are in the general note to table 1. The data for the actual values of the variables are annual.

Figure 2. Overview of FOMC participants' assessments of appropriate monetary policy, September 2012



NOTE: In the upper panel, the height of each bar denotes the number of FOMC participants who judge that, under appropriate monetary policy, the first increase in the target federal funds rate from its current range of 0 to 1/4 percent will occur in the specified calendar year. In June 2012, the numbers of FOMC participants who judged that the first increase in the target federal funds rate would occur in 2012, 2013, 2014, and 2015 were, respectively, 3, 3, 7, and 6. In the lower panel, each shaded circle indicates the value (rounded to the nearest 1/4 percentage point) of an individual participant's judgment of the appropriate level of the target federal funds rate at the end of the specified calendar year or over the longer run.

norms, many judged it to be broadly similar to historical norms, and most considered the risks to inflation to be roughly balanced.

The Outlook for Economic Activity

Conditional on their individual assumptions about appropriate monetary policy, participants judged that the economy would grow at a moderate pace over coming quarters and then pick up somewhat in 2013 before expanding in 2014 and 2015 at a rate modestly above what participants saw as the longer-run rate of output growth. The central tendency of their projections for the change in real GDP in 2012 was 1.7 to 2.0 percent, somewhat lower than in June. Many participants characterized the incoming data as having been to the weak side of their expectations at the time of the June meeting; several participants also cited the severe drought as a factor causing them to mark down their projections for economic growth in 2012. However, participants' projections for 2013 and 2014 were generally slightly higher than in June; this reflected, in part, a greater assumed amount of monetary policy accommodation than in their June submissions as well as some improvement since then in the outlook for economic activity in Europe. The central tendency of participants' projections for real GDP growth in 2013 was 2.5 to 3.0 percent, followed by central tendencies for both 2014 and 2015 of 3.0 to 3.8 percent. The central tendency for the longer-run rate of increase of real GDP remained at 2.3 to 2.5 percent, unchanged from June. While most participants noted that the increased degree of monetary policy accommodation assumed in their projections would help promote a faster recovery, participants cited several headwinds that would be likely to hold back the pace of economic expansion over the forecast period, including slower growth abroad, a still-weak housing market, the difficult fiscal and financial situation in Europe, and fiscal restraint in the United States.

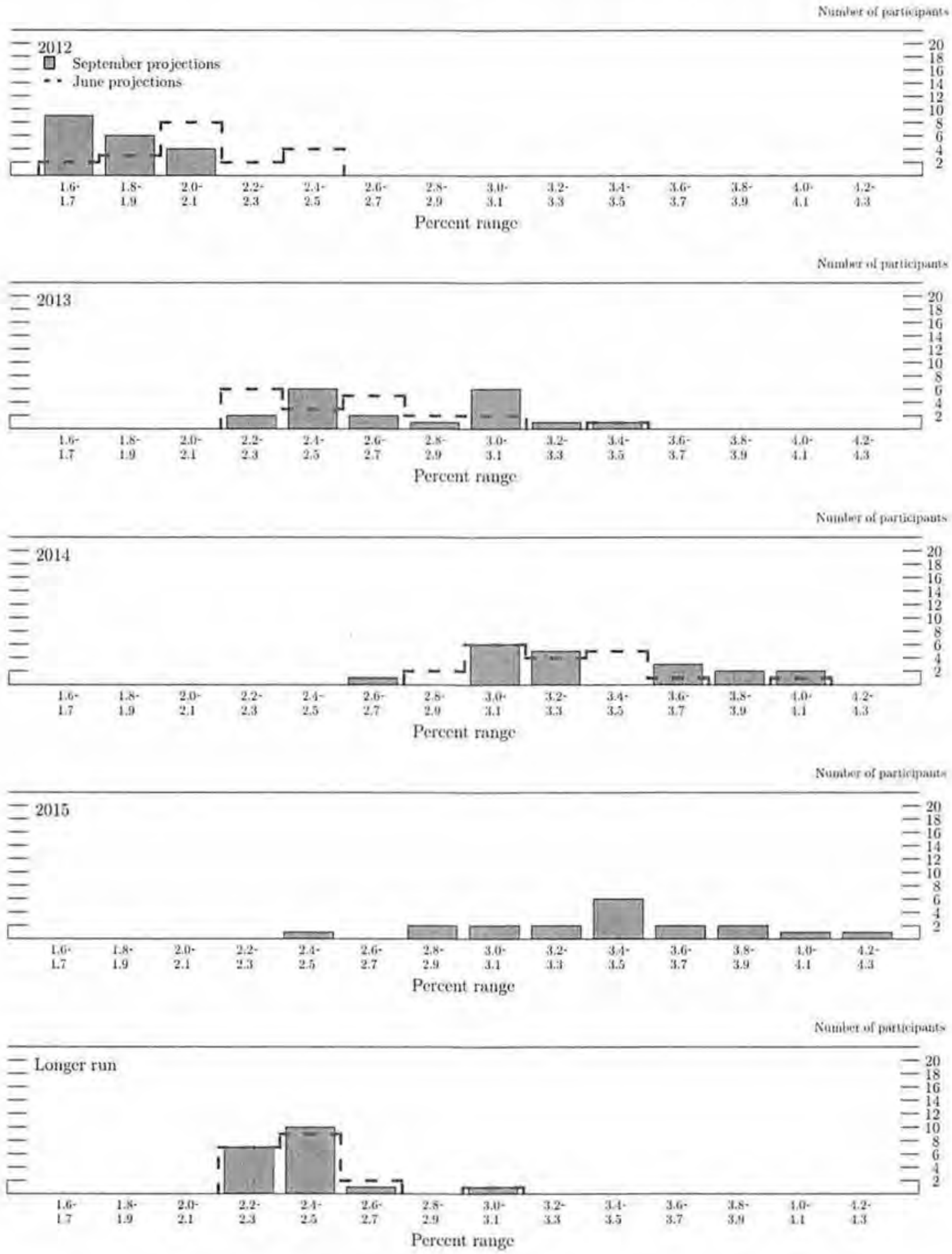
Participants projected the unemployment rate at the end of 2012 to remain close to recent levels, with a central tendency of 8.0 to 8.2 percent, the same as in their June submissions. Participants anticipated gradual improvement from 2013 through 2015; even so, they generally thought that the unemployment rate at the end of 2015 would still lie well above their individual estimates of its longer-run normal level. The central tendencies of participants' forecasts for the unemployment rate were 7.6 to 7.9 percent at the end of 2013, 6.7 to 7.3 percent at the end of 2014, and 6.0 to 6.8 percent at the end of 2015. The central tendency of participants' estimates of the longer-run normal rate of unemployment that would prevail under the assumption of appropriate monetary policy and in the absence of further shocks to the economy was 5.2 to 6.0 percent, unchanged from June. Most participants projected that the gap between the current unemployment rate and their estimates of its longer-run normal rate would be closed in five or six years, while a few judged that less time would be needed.

Figures 3.A and 3.B provide details on the diversity of participants' views regarding the likely outcomes for real GDP growth and the unemployment rate over the next three years and over the longer run. The dispersion in these projections reflects differences in participants' assessments of many factors, including appropriate monetary policy and its effects on the economy, the rate of improvement in the housing sector, the spillover effects of the fiscal and financial situation in Europe, the prospective path for U.S. fiscal policy, the extent of structural dislocations in the labor market, the likely evolution of credit and financial market conditions, and longer-term trends in productivity and the labor force. With much of the data for the first eight months of 2012 now in hand, the dispersion of participants' projections of real GDP growth and the unemployment rate this year narrowed in September compared with June. The range of participants' forecasts for the change in real GDP in 2013 and 2014, however, was little changed from June, on balance. The distribution of projections for the unemployment rate was not much altered for 2013, while for 2014 it narrowed a bit and shifted down slightly. The range for the unemployment rate for 2015 was 5.7 to 6.9 percent. As in June, the dispersion of estimates for the longer-run rate of output growth was fairly narrow, with the values being mostly from 2.2 to 2.7 percent. The range of participants' estimates of the longer-run rate of unemployment was 5.0 to 6.3 percent, a similar range to that in June; this range reflected different judgments among participants about several factors, including the outlook for labor force participation and the structure of the labor market.

The Outlook for Inflation

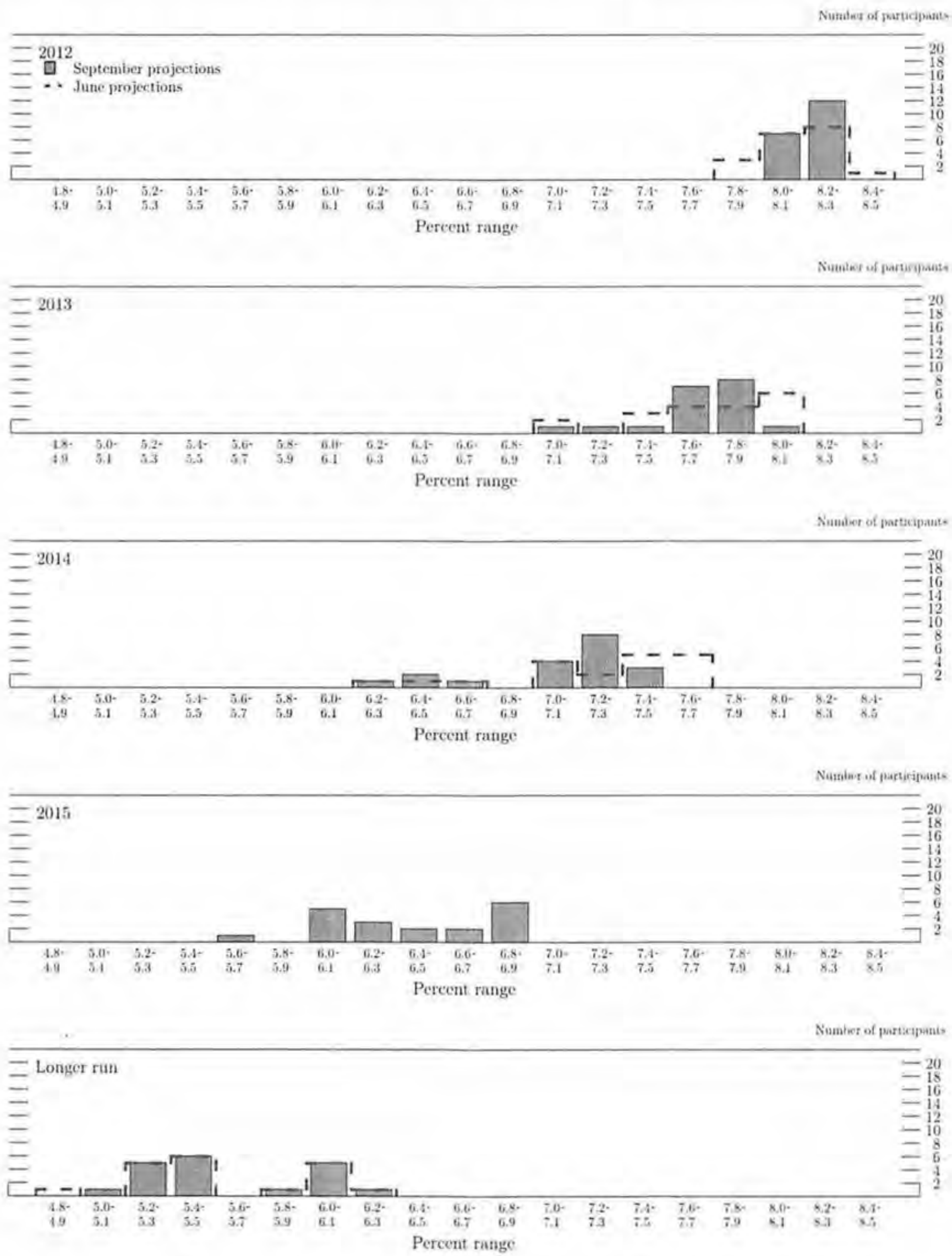
Participants' views on the broad outlook for inflation under the assumption of appropriate monetary policy were little changed from June. For 2012 as a whole, most anticipated that overall inflation would be only slightly above its average annual rate of 1.6 percent over the first half of the year; a number of participants pointed to higher food prices in response to the drought, along with recent increases in oil prices, as temporary sources of upward pressure on the headline

Figure 3.A. Distribution of participants' projections for the change in real GDP, 2012–15 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

Figure 3.B. Distribution of participants' projections for the unemployment rate, 2012–15 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

rate. Almost all participants judged that both headline and core inflation would remain subdued over the 2013–15 period, running at rates at or below the FOMC's longer-run objective of 2 percent. In pointing to factors likely to restrain price pressures, several participants cited sizable resource slack and stable inflation expectations, while a few noted the subdued behavior of labor compensation. Specifically, the central tendency of participants' projections for inflation, as measured by the PCE price index, moved up and tightened to 1.7 to 1.8 percent for 2012 and was little changed for 2013 and 2014 at 1.6 to 2.0 percent. For 2015, the central tendency was 1.8 to 2.0 percent. The central tendencies of the forecasts for core inflation were broadly similar to those for the headline measure for 2013 through 2015.

Figures 3.C and 3.D provide information about the diversity of participants' views about the outlook for inflation. Participants' projections for headline inflation for 2012, which in June had ranged from 1.2 to 2 percent, narrowed in September to the range of 1.5 to 1.9 percent; about three-fourths of participants' projections took values of 1.7 to 1.8 percent, broadly in line with recent inflation readings. The distributions of participants' projections for headline inflation in 2013 and 2014 were very similar to those for June, while the range of projections for core inflation narrowed slightly for both years. The distributions for core and overall inflation in 2015 were concentrated near the Committee's longer-run inflation objective of 2 percent.

Appropriate Monetary Policy

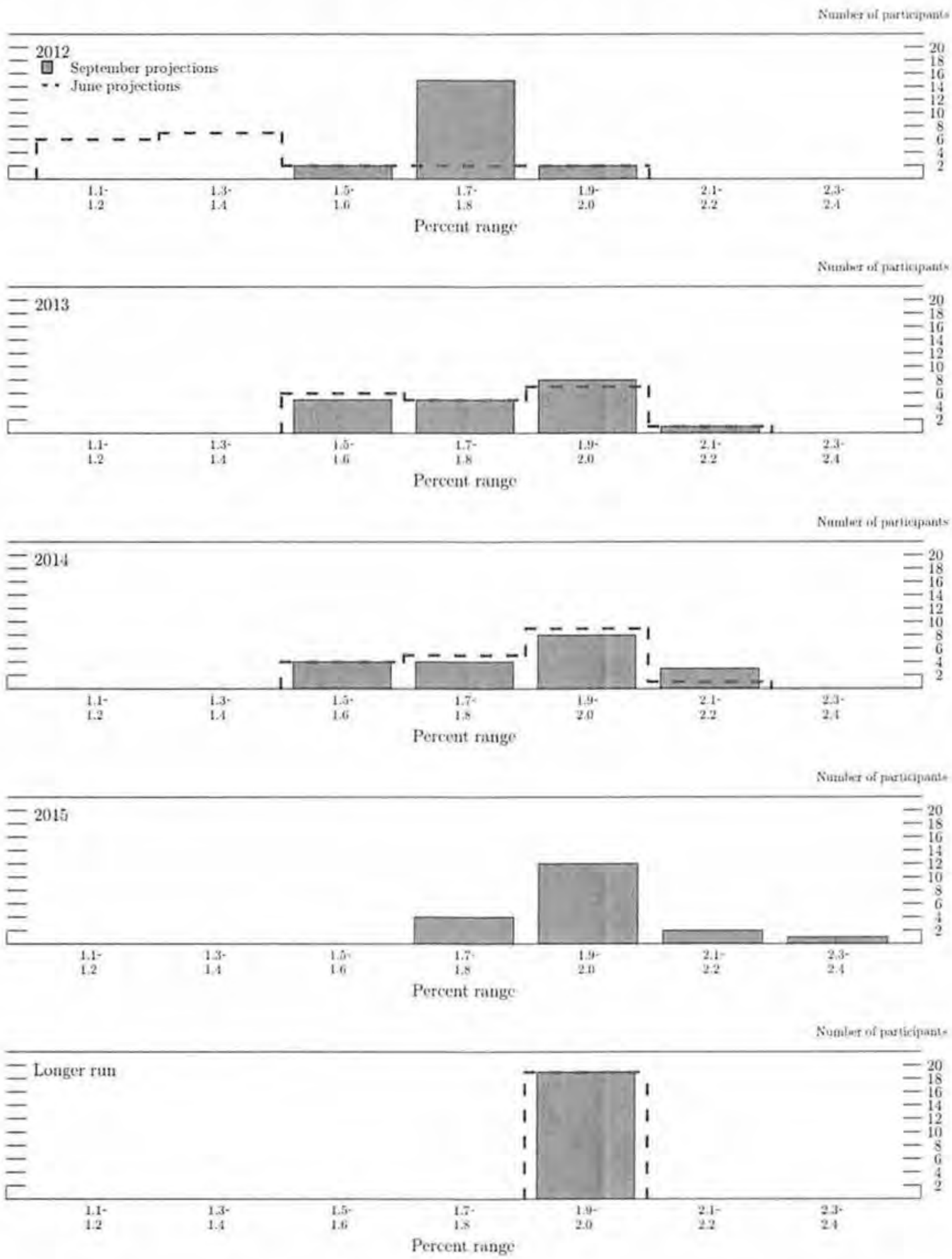
As indicated in figure 2, most participants judged that exceptionally low levels of the federal funds rate would remain appropriate for several more years. In particular, 12 participants thought that the first increase in the target federal funds rate would not be warranted until 2015, and 1 viewed a start to firming in 2016 as appropriate (upper panel). The 12 participants who expected that the target federal funds rate would not move above its effective lower bound until 2015 thought the federal funds rate would be 1.6 percent or lower at the end of that year, while the one participant who expected that policy firming would commence in 2016 saw the funds rate target at 75 basis points at the end of that year. Six participants judged that policy firming in 2012, 2013, or 2014 would be consistent with the Committee's statutory mandate. Those participants judged that the appropriate value for the federal funds rate would range from 1½ to 3 percent at the end of 2014 and from 2½ to 4½ percent at the end of 2015. In total, 14 participants judged that appropriate monetary policy called for a more-accommodative path for the federal funds rate than in their June submissions, involving either a lower target for the federal funds rate at the end of the initial year of policy firming, or a shift out in the first year of firming.

All participants reported levels for the appropriate target federal funds rate at the end of 2014 that were well below their estimates of the level expected to prevail in the longer run, and most saw the appropriate target federal funds rate as still well below its longer-run value at the end of 2015. Estimates of the longer-run target federal funds rate ranged from 3 to 4½ percent, reflecting the Committee's inflation objective of 2 percent and participants' judgments about the longer-run equilibrium level of the real federal funds rate.

Participants also provided qualitative information on their views regarding the appropriate path of the Federal Reserve's balance sheet. Eleven participants indicated that appropriate policy would involve a decision by the Committee, at the September meeting or soon thereafter, to undertake significant additional asset purchases. Several participants envisioned this program as entailing purchases of agency mortgage-backed securities. Almost all participants assumed that, at the appropriate time, the Committee would carry out the normalization of the balance sheet according to the principles approved at the June 2011 FOMC meeting. In general, participants linked their preferred start dates for the normalization process to their views for the appropriate timing of the first increase in the target federal funds rate.

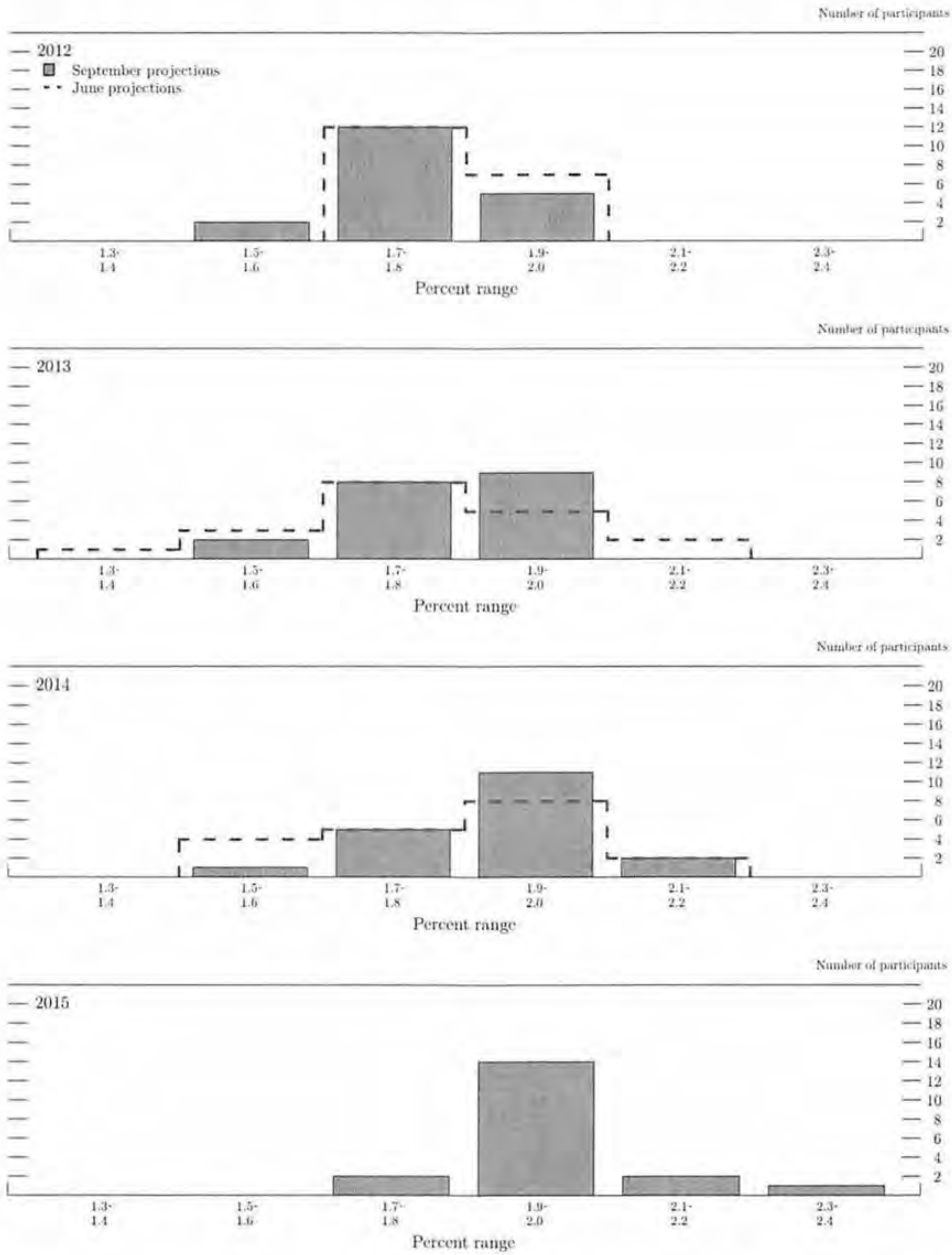
The key factors informing participants' individual assessments of the appropriate setting for monetary policy included their judgments regarding labor market conditions that would be consistent with the maximum level of employment, the extent to which employment currently deviated from the maximum level of employment, the extent to which inflation deviated from the Committee's longer-term objective of 2 percent, and participants' projections of the likely time horizon necessary to return employment and inflation to mandate-consistent levels. Several participants noted that their assessments of appropriate monetary policy reflected the subpar pace of labor market improvement and the persistent shortfall of output from potential since the 2007–09 recession. A few participants noted that their settings of appropriate federal funds rate policy took into account unusual factors prevailing in recent years, such as the likelihood that the neutral level of the federal funds rate was somewhat below its his-

Figure 3.C. Distribution of participants' projections for PCE inflation, 2012–15 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

Figure 3.D. Distribution of participants' projections for core PCE inflation, 2012–15



NOTE: Definitions of variables are in the general note to table 1.

torical norm and the fact that policy rate setting had been constrained by the effective lower bound on nominal interest rates. Two participants expressed concern that a protracted period of very accommodative monetary policy could lead to imbalances in the financial system. Participants also noted that because the appropriate stance of monetary policy is conditional on the evolution of real activity and inflation over time, their assessments of the appropriate future path of the federal funds rate and the balance sheet could change if economic conditions were to evolve in an unexpected manner.

Figure 3.E details the distribution of participants' judgments regarding the appropriate level of the target federal funds rate at the end of each calendar year from 2012 to 2015 and over the longer run. As previously noted, most participants judged that economic conditions would warrant maintaining the current low level of the federal funds rate through the end of 2014. Views on the appropriate level of the federal funds rate at the end of 2015 were more widely dispersed, with 10 participants seeing the appropriate level of the federal funds rate as 1 percent or lower and 6 of them seeing the appropriate rate as 2½ percent or higher. Those who judged that a longer period of very accommodative monetary policy would be appropriate generally were participants who projected a sizable gap between the unemployment rate and the longer-run normal level of the unemployment rate until 2015 or later. In contrast, the 6 participants who judged that policy firming should begin in 2012, 2013, or 2014 indicated that the Committee would need to act relatively soon in order to keep inflation near the FOMC's longer-run objective of 2 percent and to prevent a rise in inflation expectations.

Uncertainty and Risks

Nearly all participants judged that their current level of uncertainty about real GDP growth and unemployment was higher than was the norm during the previous 20 years (figure 4).[1] Eight participants judged the level of uncertainty associated with their forecasts of total PCE inflation to be higher as well, while another 10 participants viewed uncertainty about inflation as

Table 2. Average historical projection error ranges
Percentage points

Variable	2012	2013	2014	2015
Change in real GDP[1]	±0.6	±1.4	±1.7	±1.7
Unemployment rate[1]	±0.2	±0.9	±1.5	±1.9
Total consumer prices[2]	±0.5	±0.9	±1.1	±1.0

NOTE: Error ranges shown are measured as plus or minus the root mean squared error of projections for 1992 through 2011 that were released in the fall by various private and government forecasters. As described in the box "Forecast Uncertainty," under certain assumptions, there is about a 70 percent probability that actual outcomes for real GDP, unemployment, and consumer prices will be in ranges implied by the average size of projection errors made in the past. Further information may be found in David Reifschneider and Peter Tulip (2007), "Gauging the Uncertainty of the Economic Outlook from Historical Forecasting Errors," Finance and Economics Discussion Series 2007-60 (Washington: Board of Governors of the Federal Reserve System, November).

1. Definitions of variables are in the general note to table 1.

2. Measure is the overall consumer price index, the price measure that has been most widely used in government and private economic forecasts. Projection is percent change, fourth quarter of the previous year to the fourth quarter of the year indicated.

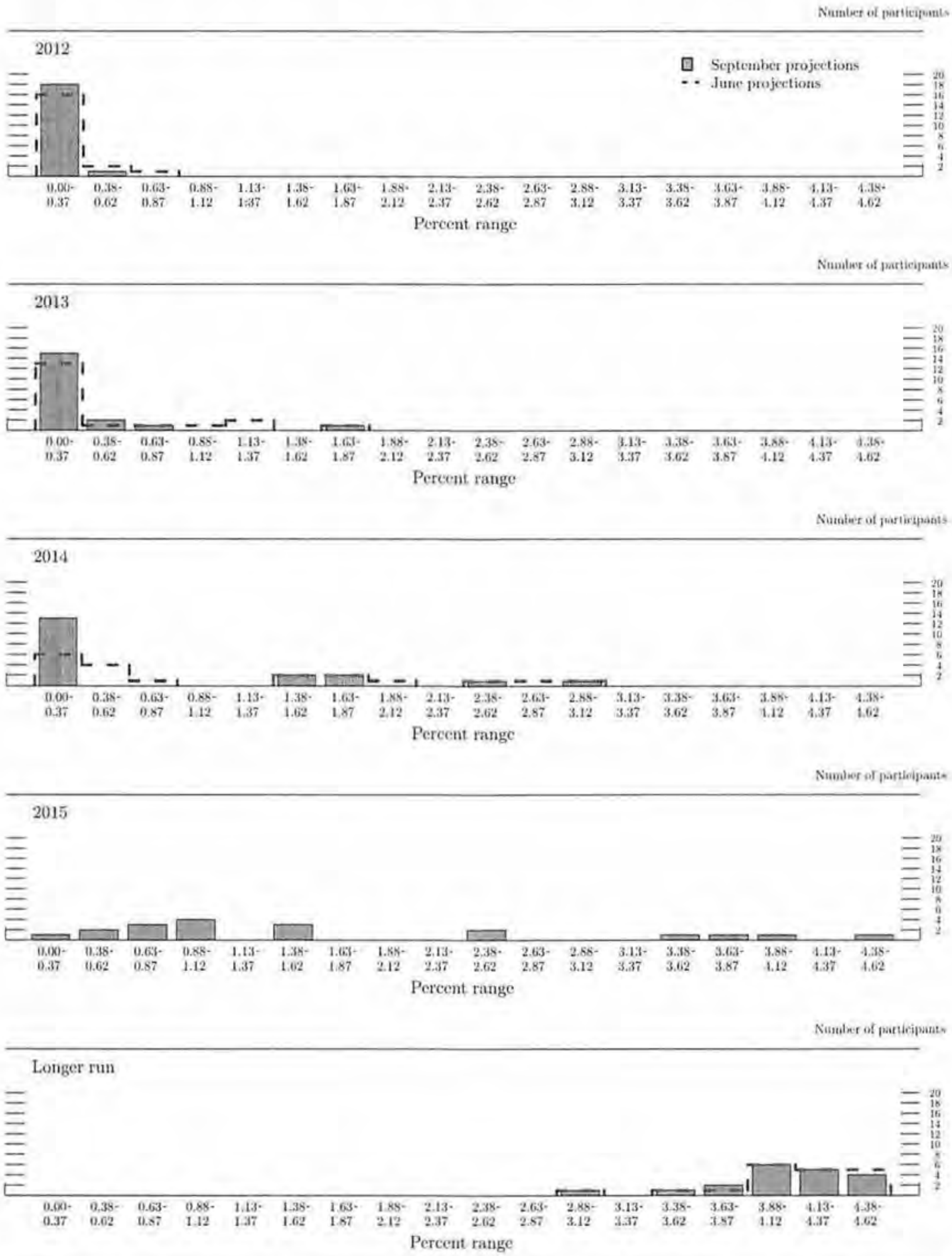
broadly similar to historical norms. The main factors cited as contributing to the elevated uncertainty about economic outcomes were the ongoing fiscal and financial situation in Europe, the outlook for fiscal policy in the United States, and a general slowdown in global economic growth, including the possibility of a significant slowdown in China. As in June, participants noted the difficulties associated with forecasting the path of the U.S. economic recovery following a financial crisis and recession that differed markedly from recent historical experience. A number of participants commented that in the aftermath of the financial crisis, they were more uncertain about the level of potential output and its rate of growth. A couple of participants noted that some of the uncertainty about potential output arose from the risk that continuation of long-term unemployment might impair the skill level of the labor force or cause some workers to retire earlier than would otherwise have been the case, thereby reducing potential output in the medium term.

A majority of participants reported that they saw the risks to their forecasts of real GDP growth as weighted toward the downside and, accordingly, the risks to their projections of the unemployment rate as tilted to the upside. The most frequently identified sources of risk were the situation in Europe, which many participants thought had the potential to slow global economic activity further, particularly over the near term, and issues associated with fiscal policy in the United States.

Most participants continued to judge the risks to their projections for inflation as broadly balanced, with several highlighting the recent stability of inflation expecta-

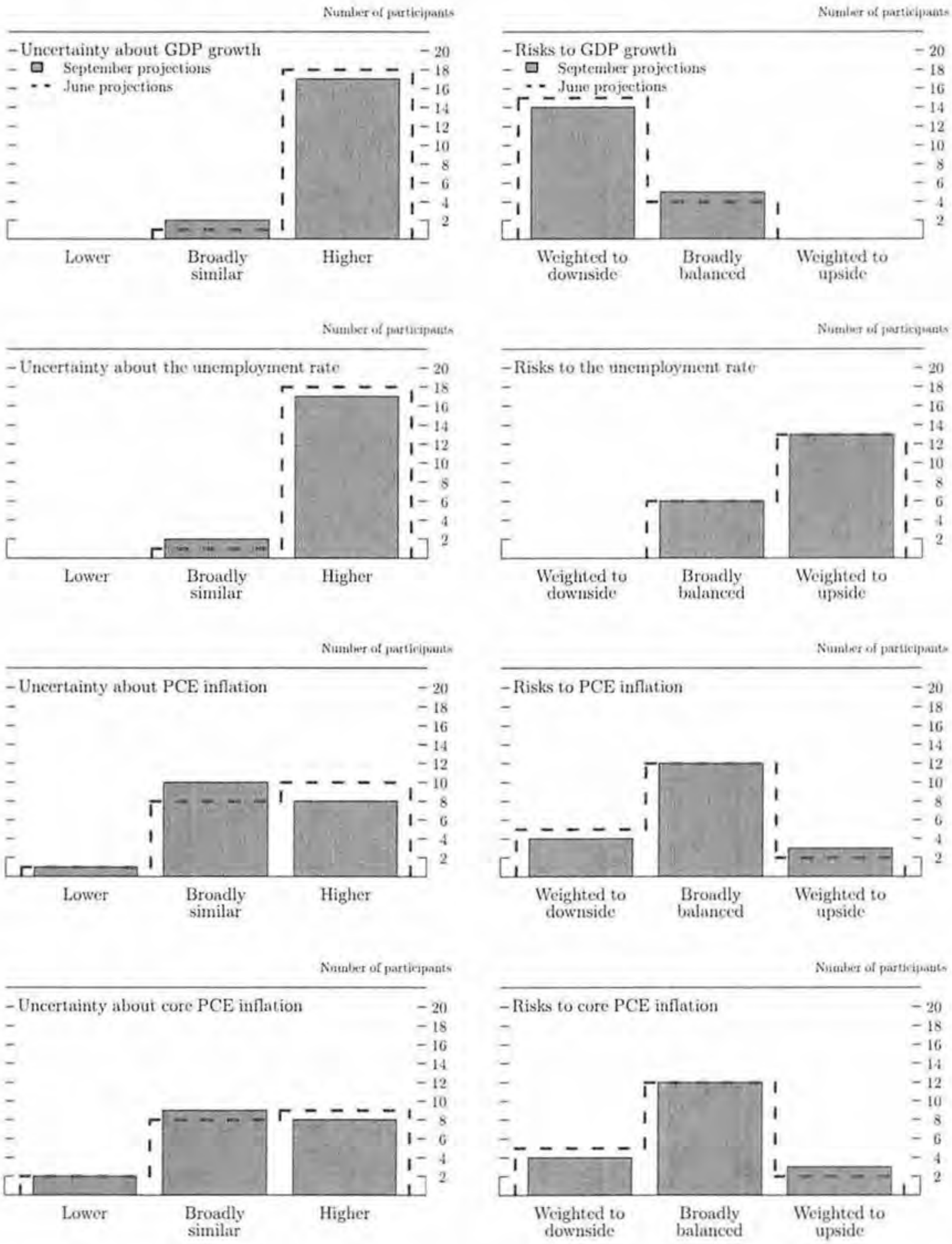
[1] Table 2 provides estimates of the forecast uncertainty for the change in real GDP, the unemployment rate, and total consumer price inflation over the period from 1991 to 2011. At the end of this summary, the box "Forecast Uncertainty" discusses the sources and interpretation of uncertainty in the economic forecasts and explains the approach used to assess the uncertainty and risks attending the participants' projections.

Figure 3.E. Distribution of participants' projections for the target federal funds rate, 2012–15 and over the longer run



NOTE: The target federal funds rate is measured as the level of the target rate at the end of the calendar year or in the longer run.

Figure 4. Uncertainty and risks in economic projections



NOTE: For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty." Definitions of variables are in the general note to table 1.

tions. However, four participants saw the risks to inflation as tilted to the downside, with a couple of them noting that slack in resource markets could turn out to be greater than they were anticipating. Three participants saw the risks to inflation as weighted to the up side in light of concerns about U.S. fiscal imbalances, the current highly accommodative stance of monetary policy, and uncertainty about the Committee's ability to shift to a less accommodative policy stance when it becomes appropriate to do so.

Forecast Uncertainty

The economic projections provided by the members of the Board of Governors and the presidents of the Federal Reserve Banks inform discussions of monetary policy among policymakers and can aid public understanding of the basis for policy actions. Considerable uncertainty attends these projections, however. The economic and statistical models and relationships used to help produce economic forecasts are necessarily imperfect descriptions of the real world, and the future path of the economy can be affected by myriad unforeseen developments and events. Thus, in setting the stance of monetary policy, participants consider not only what appears to be the most likely economic outcome as embodied in their projections, but also the range of alternative possibilities, the likelihood of their occurring, and the potential costs to the economy should they occur.

Table 2 summarizes the average historical accuracy of a range of forecasts, including those reported in past *Monetary Policy Reports* and those prepared by the Federal Reserve Board's staff in advance of meetings of the Federal Open Market Committee. The projection error ranges shown in the table illustrate the considerable uncertainty associated with economic forecasts. For example, suppose a participant projects that real gross domestic product (GDP) and total consumer prices will rise steadily at annual rates of, respectively, 3 percent and 2 percent. If the uncertainty attending those projections is similar to that experienced in the past and the risks around the projections are broadly balanced, the numbers reported in table 2 would imply a probability of about 70 percent that actual GDP would expand within a range of 2.4 to 3.6 percent in the current year, 1.6 to 4.4 percent in the second year, and 1.3 to 4.7 percent in the third and fourth years. The corresponding 70 percent confidence intervals for overall inflation would be 1.5 to 2.5 percent in the current year, 1.1 to 2.9 percent in the second year, 0.9 to 3.1 percent in the third year, and 1.0 to 3.0 percent in the fourth year.

Because current conditions may differ from those that prevailed, on average, over history, participants provide judgments as to whether the uncertainty attached to their projections of each variable is greater than, smaller than, or broadly similar to typical levels of forecast uncertainty in the past, as shown in table 2. Participants also provide judgments as to whether the risks to their projections are weighted to the upside, are weighted to the downside, or are broadly balanced. That is, participants judge whether each variable is more likely to be above or below their projections of the most likely outcome. These judgments about the uncertainty and the risks attending each participant's projections are distinct from the diversity of participants' views about the most likely outcomes. Forecast uncertainty is concerned with the risks associated with a particular projection rather than with divergences across a number of different projections.

As with real activity and inflation, the outlook for the future path of the federal funds rate is subject to considerable uncertainty. This uncertainty arises primarily because each participant's assessment of the appropriate stance of monetary policy depends importantly on the evolution of real activity and inflation over time. If economic conditions evolve in an unexpected manner, then assessments of the appropriate setting of the federal funds rate would change from that point forward.

Minutes of the Federal Open Market Committee
September 12–13, 2012

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Wednesday, September 12, 2012, at 10:30 a.m. and continued on Thursday, September 13, 2012, at 8:30 a.m.

PRESENT:
Ben Bernanke, Chairman
William C. Dudley, Vice Chairman
Elizabeth Duke
Jeffrey M. Lacker
Dennis P. Lockhart
Sandra Pianalto
Jerome H. Powell
Sarah Bloom Raskin
Jeremy C. Stein
Daniel K. Tarullo
John C. Williams
Janet L. Yellen

James Bullard, Christine Cumming, Charles L. Evans, Esther L. George, and Eric Rosengren, Alternate Members of the Federal Open Market Committee

Richard W. Fisher, Narayana Kocherlakota, and Charles I. Plosser, Presidents of the Federal Reserve Banks of Dallas, Minneapolis, and Philadelphia, respectively

William B. English, Secretary and Economist
Deborah J. Danker, Deputy Secretary
Matthew M. Luecke, Assistant Secretary
David W. Skidmore, Assistant Secretary
Michelle A. Smith, Assistant Secretary
Scott G. Alvarez, General Counsel
Thomas C. Baxter, Deputy General Counsel
Steven B. Kamin, Economist
David W. Wilcox, Economist

David Altig, Thomas A. Connors, Michael P. Leahy, William Nelson, David Reifschneider, Glenn D. Rudebusch, William Wascher, and John A. Weinberg, Associate Economists

Simon Potter, Manager, System Open Market Account

Nellie Liang, Director, Office of Financial Stability Policy and Research, Board of Governors

Jon W. Faust, Special Adviser to the Board, Office of Board Members, Board of Governors

James A. Clouse, Deputy Director, Division of Monetary Affairs, Board of Governors; Maryann F. Hunter, Deputy Director, Division of Banking Supervision and Regulation, Board of Governors

Andreas Lehnert,[1] Deputy Director, Office of Financial Stability Policy and Research, Board of Governors

Linda Robertson, Assistant to the Board, Office of Board Members, Board of Governors

Seth B. Carpenter, Senior Associate Director, Division of Monetary Affairs, Board of Governors

Thomas Laubach, Senior Adviser, Division of Research and Statistics, Board of Governors; Ellen E. Meade and Joyce K. Zickler, Senior Advisers, Division of Monetary Affairs, Board of Governors

Brian J. Gross,[2] Special Assistant to the Board, Office of Board Members, Board of Governors

Eric M. Engen, Michael G. Palumbo, and Wayne Passmore, Associate Directors, Division of Research and Statistics, Board of Governors

Fabio M. Natalucci, Deputy Associate Director, Division of Monetary Affairs, Board of Governors

Edward Nelson, Section Chief, Division of Monetary Affairs, Board of Governors

Jeremy B. Rudd, Senior Economist, Division of Research and Statistics, Board of Governors

Kelly J. Dubbert, First Vice President, Federal Reserve Bank of Kansas City

[1] Attended Wednesday's session only.
[2] Attended Thursday's session only.

Loretta J. Mester, Harvey Rosenblum, and Daniel G. Sullivan, Executive Vice Presidents, Federal Reserve Banks of Philadelphia, Dallas, and Chicago, respectively

Cletus C. Coughlin, Troy Davig, Mark E. Schweitzer, and Kei-Mu Yi, Senior Vice Presidents, Federal Reserve Banks of St. Louis, Kansas City, Cleveland, and Minneapolis, respectively

Lorie K. Logan, Jonathan P. McCarthy, Giovanni Olivei, and Nathaniel Wuerffel,[3] Vice Presidents, Federal Reserve Banks of New York, New York, Boston, and New York, respectively

Michelle Ezer,[4] Markets Officer, Federal Reserve Bank of New York

[3] Attended after the discussion on potential effects of a large-scale asset purchase program.
[4] Attended the discussion on potential effects of a large-scale asset purchase program.

Potential Effects of a Large-Scale Asset Purchase Program

The staff presented an analysis of various aspects of possible large-scale asset purchase programs, including a comparison of flow-based purchase programs to programs of fixed size. The presentation reviewed the modeling approach used by the staff in estimating the financial and macroeconomic effects of such purchases. While significant uncertainty surrounds such estimates, the presentation indicated that asset purchases could be effective in fostering more rapid progress toward the Committee's objectives. The staff noted that, for a flow-based program, the public's understanding of the conditions under which the Committee would end purchases would shape expectations of the magnitude of the Federal Reserve's holdings of longer-term securities, and thus also influence the financial and economic effects of such a program. The staff also discussed the potential implications of additional asset purchases for the evolution of the Federal Reserve's balance sheet and income. The presentation noted that significant additional asset purchases should not adversely affect the ability of the Committee to tighten the stance of policy when doing so becomes appropriate. In their discussion of the staff presentation, a few participants noted the uncertainty surrounding estimates of the effects of large-scale asset purchases or the need for additional work regarding the implications of such purchases for the normalization of policy.

Developments in Financial Markets and the Federal Reserve's Balance Sheet

The Manager of the System Open Market Account (SOMA) reported on developments in domestic and foreign financial markets during the period since the Federal Open Market Committee (FOMC) met on July 31–August 1, 2012. He also reported on System open market operations, including the ongoing reinvestment into agency-guaranteed mortgage-backed securities (MBS) of principal payments received on SOMA holdings of agency debt and agency-guaranteed MBS as well as the operations related to the maturity extension program authorized at the June 19–20, 2012, FOMC meeting. By unanimous vote, the Committee ratified the Desk's domestic transactions over the intermeeting period. There were no intervention operations in foreign currencies for the System's account over the intermeeting period.

Staff Review of the Economic Situation

The information reviewed at the September 12–13 meeting suggested that economic activity continued to increase at a moderate pace in recent months. Employment rose slowly, and the unemployment rate was still high. Consumer price inflation stayed subdued, while measures of long-run inflation expectations remained stable.

Private nonfarm employment increased in July and August at only a slightly faster pace than in the second quarter, and the rate of decline in government employment eased somewhat. The unemployment rate was 8.1 percent in August, just a bit lower than its average during the first half of the year, and the labor force participation rate edged down further. The share of workers employed part time for economic reasons remained large, and the rate of long-duration unemployment continued to be high. Indicators of job openings and firms' hiring plans were little changed, on balance, and initial claims for unemployment insurance were essentially flat over the intermeeting period.

Manufacturing production increased at a faster pace in July than in the second quarter, and the rate of manufacturing capacity utilization rose slightly. However, automakers' schedules indicated that the pace of motor vehicle assemblies would be somewhat lower in the coming months than it was in July, and broader indicators of manufacturing activity, such as the diffusion indexes of new orders from the national and regional manufacturing surveys, generally remained quite muted

in recent months at levels consistent with only meager gains in factory output in the near term.

Following a couple of months when real personal consumption expenditures (PCE) were roughly flat, spending increased in July, and the gains were fairly widespread across categories of consumer goods and services. Incoming data on factors that tend to support household spending were somewhat mixed. Real disposable incomes increased solidly in July, boosted in part by lower energy prices. The continued rise in house values through July, and the increase in equity prices during the intermeeting period, suggested that households' net worth may have improved a little in recent months. However, consumer sentiment remained more downbeat in August than earlier in the year.

Housing market conditions continued to improve, but construction activity was still at a low level, reflecting the restraint imposed by the substantial inventory of foreclosed and distressed properties and by tight credit standards for mortgage loans. Starts of new single-family homes declined in July, but permits increased, which pointed to further gains in single-family construction in the coming months. Both starts and permits for new multifamily units rose in July. Home prices increased for the sixth consecutive month in July, and sales of both new and existing homes also rose.

Real business expenditures on equipment and software appeared to be decelerating. Both nominal shipments and new orders for nondefense capital goods excluding aircraft declined in July, and the backlog of unfilled orders decreased. Other forward-looking indicators, such as downbeat readings from surveys of business conditions and capital spending plans, also pointed toward only muted increases in real expenditures for business equipment in the near term. Nominal business spending for new nonresidential construction declined in July after only edging up in the second quarter. Inventories in most industries looked to be roughly aligned with sales in recent months.

Real federal government purchases appeared to decrease further, as data for nominal federal spending in July pointed to continued declines in real defense expenditures. Real state and local government purchases also appeared to still be trending down. State and local government payrolls contracted in July and August, although at a somewhat slower rate than in the second quarter, and nominal construction spending by these governments decreased slightly in July.

The U.S. international trade deficit was about unchanged in July after narrowing significantly in June. Exports declined in July, as decreases in the exports of industrial supplies, automotive products, and consumer goods were only partially offset by greater exports of agricultural products. Imports also declined in July, reflecting lower imports of capital goods and petroleum products and somewhat higher imports of automotive products. The trade data for July pointed toward real net exports having a roughly neutral effect on the growth of U.S. real gross domestic product (GDP) in the third quarter after they made a positive contribution to the increase in real GDP in the second quarter.

Overall U.S. consumer prices, as measured by the PCE price index, were flat in July. Consumer food prices were essentially unchanged, but the substantial increases in spot and futures prices of farm commodities in recent months, reflecting the effects of the drought in the Midwest, pointed toward some temporary upward pressures on retail food prices later this year. Consumer energy prices declined slightly in July, but survey data indicated that retail gasoline prices rose in August. Consumer prices excluding food and energy also were flat in July. Near-term inflation expectations from the Thomson Reuters/University of Michigan Surveys of Consumers increased somewhat in August, while longer-term inflation expectations in the survey edged up but remained within the narrow range that they have occupied for many years. Long-run inflation expectations from the Federal Reserve Bank of Philadelphia Survey of Professional Forecasters continued to be stable in the third quarter.

Measures of labor compensation indicated that increases in nominal wages remained modest. The rise in compensation per hour in the nonfarm business sector was muted over the year ending in the second quarter, and with small gains in productivity, unit labor costs rose only slightly. The employment cost index increased a little more slowly than the measure of compensation per hour over the same period. More recently, the gains in average hourly earnings for all employees in July and August were small.

Overall foreign economic growth appeared to be subdued in the third quarter after slowing in the second quarter. In the euro area, policy developments contributed to an improvement in financial conditions; recent indicators pointed to further decreases in production, however, and both business and consumer confidence continued to decline. Indicators of activity in the emerging market economies generally weakened. In

China, export growth slowed, while retail sales and investment spending changed little. The rate of economic growth rose in Brazil but was still sluggish, and increases in economic activity in Mexico were below the faster pace seen earlier in the year. Consistent with the slowing in foreign economic growth, readings on foreign inflation continued to moderate.

Staff Review of the Financial Situation

Sentiment in financial markets improved somewhat since the time of the August FOMC meeting. Investors' concerns about the situation in Europe seemed to ease somewhat, and market participants also appeared to have increased their expectations of additional monetary policy accommodation.

On balance, the nominal Treasury yield curve steepened over the intermeeting period, with yields on longer-dated Treasury securities rising notably. Following the August FOMC statement, Treasury yields moved up, reportedly in part because investors had factored in some probability that the anticipated liftoff date for the federal funds rate in the forward-guidance language would be moved back at that meeting. Treasury yields subsequently rose further as concerns about the situation in the euro area moderated. Later in the period, Treasury yields retraced some of their earlier gains as market participants' expectations of additional policy action increased following the release of the minutes of the August FOMC meeting, the Chairman's speech at the economic symposium in Jackson Hole, and the weaker-than-expected August employment report. On net, the expected path of the federal funds rate derived from overnight index swap rates was little changed. Indicators of inflation expectations derived from nominal and inflation-protected Treasury securities edged up over the period but stayed in the ranges observed over recent quarters.

Conditions in unsecured short-term dollar funding markets remained stable over the intermeeting period. In secured funding markets, conditions were also little changed.

In the September Senior Credit Officer Opinion Survey on Dealer Financing Terms, respondents reported no significant changes in credit terms for important classes of counterparties over the past three months, although a few noted a slight easing in terms for some clients. The use of leverage by hedge funds was reported to have remained basically unchanged. However, respondents noted greater demand for funding of agency and non-agency residential MBS.

Broad price indexes for U.S. equities rose moderately, on net, over the intermeeting period, prompted by generally better-than-expected readings on economic activity released early in the period, somewhat reduced concerns about the situation in Europe, and some additional anticipation of monetary policy easing later in the period. Option-implied volatility on the S&P 500 index fell in early August to levels not seen since the middle of 2007; it subsequently partially retraced. Equity prices for large domestic banks rose about in line with the broad equity price indexes, and credit default swap (CDS) spreads for the largest bank holding companies continued to move down.

Yields on investment-grade corporate bonds were little changed at near-record low levels over the intermeeting period, while yields on speculative-grade corporate bonds edged down. The spread of yields on corporate bonds over those on comparable-maturity Treasury securities narrowed. Net debt issuance by nonfinancial firms continued to be strong over the period. Investment- and speculative-grade bond issuance increased in August from an already robust pace in preceding months, and commercial and industrial (C&I) loans rose further. In the syndicated leveraged loan market, gross issuance of institutional loans continued to be solid in July and August. Issuance of collateralized loan obligations remained on pace to post its strongest year since 2007. The rate of gross public equity issuance by nonfinancial firms increased slightly in August but was still at a subdued level.

Financial conditions in the commercial real estate (CRE) market were still somewhat strained against a backdrop of weak fundamentals and tight underwriting standards. Nevertheless, issuance of commercial mortgage-backed securities continued at a solid pace over the intermeeting period.

Mortgage rates remained at very low levels over the intermeeting period. Refinancing activity increased but was still restrained by tight underwriting conditions, capacity constraints at mortgage originators, and low levels of home equity. Nonrevolving consumer credit continued to expand briskly in June, largely due to robust growth in student loans originated by the federal government, while revolving credit remained subdued. Delinquency rates for consumer credit were still low, mostly reflecting a shift in lending toward higher-credit-quality borrowers.

Gross issuance of long-term municipal bonds picked up in August from the subdued pace in July, but net issuance continued to decline. CDS spreads for debt

issued by state governments moved lower over the intermeeting period, and the ratio of yields on long-term general obligation municipal bonds to yields on comparable-maturity Treasury securities decreased, on balance.

Bank credit continued to expand at a moderate pace over the intermeeting period, as growth in C&I loans remained brisk while CRE and home equity loans both trended down further. The August Survey of Terms of Business Lending indicated that overall interest-rate spreads on C&I loans were little changed; spreads on loans drawn on recently established commitments narrowed materially, although they remained wide.

M2 growth was rapid in July, likely reflecting investors' heightened demand for safe and liquid assets amid concerns about the situation in Europe, but it slowed to a moderate pace in August as those concerns eased somewhat. The monetary base rose in July and August as reserve balances and currency expanded.

Sentiment improved in foreign financial markets as the European Central Bank (ECB) outlined a plan to make additional sovereign bond purchases in conjunction with the European Financial Stability Facility and the European Stability Mechanism. Spreads of shorter-term yields on peripheral euro-area sovereign bonds over those on comparable-maturity German bunds declined substantially over the period. The staff's broad nominal index of the foreign exchange value of the dollar declined and benchmark sovereign yields in the major advanced foreign economies increased as safe-haven demands eased with the lessening of concerns about the European situation. Most global benchmark indexes for equity prices moved up, and the equity prices of European banks rose sharply. Funding conditions for euro-area banks improved, although these conditions remained fragile, and draws on the Federal Reserve's liquidity swap facility with the ECB fell.

The staff also reported on potential risks to financial stability, including those owing to the developments in Europe and to the current environment of low interest rates. Although the support for economic activity provided by low interest rates enhances financial stability, low interest rates also could eventually contribute to excessive borrowing or risk-taking and possibly leave some aspects of the financial system vulnerable to a future rise in interest rates. The staff surveyed a wide range of asset markets and financial institutions for signs of excessive valuations, leverage, or risk-taking that could pose systemic risks. Valuations for broad asset classes did not appear stretched, or supported by excessive leverage. The staff also did not find evidence that excessive risk-taking was widespread, although such behavior had appeared in a few smaller and less liquid markets.

Staff Economic Outlook

In the economic projection prepared by the staff for the September FOMC meeting, the forecast for real GDP growth in the near term was broadly similar, on balance, to the previous projection. The near-term forecast incorporated a larger negative effect of the drought on farm output in the second half of this year than the staff previously anticipated, but this effect was mostly offset by the staff's expectation of a smaller drag from net exports. The staff's medium-term projection for real GDP growth, which was conditioned on the assumption of no changes in monetary policy, was revised up a little, mostly reflecting a slight improvement in the outlook for the European situation and a somewhat higher projected path for equity prices. Nevertheless, with fiscal policy assumed to be tighter next year than this year, the staff expected that increases in real GDP would not materially exceed the growth of potential output in 2013. In 2014, economic activity was projected to accelerate gradually, supported by an easing in fiscal policy restraint, increases in consumer and business confidence, further improvements in financial conditions and credit availability, and accommodative monetary policy. The expansion in economic activity was expected to narrow the significant margin of slack in labor and product markets only slowly over the projection period, and the unemployment rate was anticipated to still be elevated at the end of 2014.

The staff's near-term forecast for inflation was revised up from the projection prepared for the August FOMC meeting, reflecting increases in consumer energy prices that were greater than anticipated. However, the staff's projection for inflation over the medium term was little changed. With crude oil prices expected to gradually decline from their current levels, the boost to retail food prices from the drought anticipated to be only temporary and comparatively small, long-run inflation expectations assumed to remain stable, and substantial resource slack persisting over the projection period, the staff continued to forecast that inflation would be subdued through 2014.

The staff viewed the uncertainty around the forecast for economic activity as elevated and the risks skewed to the downside, largely reflecting concerns about the situation in Europe and the possibility of a more severe

tightening in U.S. fiscal policy than anticipated. Although the staff saw the outlook for inflation as uncertain, the risks were viewed as balanced and not unusually high.

Participants' Views on Current Conditions and the Economic Outlook

In conjunction with this FOMC meeting, meeting participants—the 7 members of the Board of Governors and the presidents of the 12 Federal Reserve Banks, all of whom participate in the deliberations of the FOMC—submitted their assessments of real output growth, the unemployment rate, inflation, and the target federal funds rate for each year from 2012 through 2015 and over the longer run, under each participants' judgment of appropriate monetary policy. The longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge, over time, under appropriate monetary policy and in the absence of further shocks to the economy. These economic projections and policy assessments are described in the Summary of Economic Projections, which is attached as an addendum to these minutes.

In their discussion of the economic situation and outlook, meeting participants regarded the information received during the intermeeting period as indicating that economic activity had continued to expand at a moderate pace in recent months. However, recent gains in employment were small and the unemployment rate remained high. Although consumer spending had continued to advance, growth in business fixed investment appeared to have slowed. The housing sector showed some further signs of improvement, albeit from a depressed level. Consumer price inflation had been subdued despite recent increases in the prices of some key commodities, and longer-term inflation expectations had remained stable.

Regarding the economic outlook, participants generally agreed that the pace of the economic recovery would likely remain moderate over coming quarters but would pick up over the 2013–15 period. In the near term, the drought in the Midwest was expected to weigh on economic growth. Moreover, participants observed that the pace of economic recovery would likely continue to be held down for some time by persistent headwinds, including continued weakness in the housing market, ongoing household sector deleveraging, still-tight credit conditions for some households and businesses, and fiscal consolidation at all levels of government. Many participants also noted that a high level of uncertainty regarding the European fiscal and banking crisis and the outlook for U.S. fiscal and regulatory policies was weighing on confidence, thereby restraining household and business spending. However, others questioned the role of uncertainty about policy as a factor constraining aggregate demand. In addition, participants still saw significant downside risks to the outlook for economic growth. Prominent among these risks were a possible intensification of strains in the euro zone, with potential spillovers to U.S. financial markets and institutions and thus to the broader U.S. economy; a larger-than-expected U.S. fiscal tightening; and the possibility of a further slowdown in global economic growth. A few participants, however, mentioned the possibility that economic growth could be more rapid than currently anticipated, particularly if major sources of uncertainty were resolved favorably or if faster-than-expected advances in the housing sector led to improvements in household balance sheets, increased confidence, and easier credit conditions. Participants' forecasts for economic activity, which in most cases were conditioned on an assumption of additional, near-term monetary policy accommodation, were also associated with an outlook for the unemployment rate to remain close to recent levels through 2012 and then to decline gradually toward levels judged to be consistent with the Committee's mandate.

In the household sector, incoming data on retail sales were somewhat stronger than expected. Participants noted, however, that households were still in the process of deleveraging, confidence was low, and consumers appeared to remain particularly pessimistic about the prospects for the future, raising doubts that the somewhat stronger pace of spending would persist. Although the level of activity in the housing sector remained low, the somewhat faster pace of home sales and construction provided some encouraging signs of improvement. A number of participants also observed that house prices were rising. It was noted that such increases, coupled with historically low mortgage rates, could lead to a stronger upturn in housing activity, although constraints on the capacity for loan origination and still-tight credit terms for some borrowers continued to weigh on mortgage lending.

Business contacts in many parts of the country were reported to be highly uncertain about the outlook for the economy and for fiscal and regulatory policies. Although firms' balance sheets were generally strong, these uncertainties had led them to be particularly cautious and to remain reluctant to hire or expand capacity. Reports on manufacturing activity were mixed, with production related to autos and housing the most not-

able areas of relative strength. In one District, business surveys pointed to further growth; however, readings on forward-looking indicators of orders around the country were less positive. In addition, business contacts noted that export demand was showing signs of weakness as a result of the slowdown in economic activity in Europe. The energy sector continued to expand. In the agricultural sector, high grain prices and crop insurance payments were supporting farm incomes, helping offset declines in production and reduced profits on livestock. The drought was expected to reduce farm inventories and have a transitory impact on broader measures of economic growth.

Participants generally expected that fiscal policy would continue to be a drag on economic activity over coming quarters. In addition to ongoing weakness in spending at the federal, state, and local government levels, uncertainties about tax and spending policies reportedly were restraining business decisionmaking. Participants also noted that if an agreement was not reached to tackle the expiring tax cuts and scheduled spending reductions, a sharp consolidation of fiscal policy would take place at the beginning of 2013.

The available indicators pointed to continued weakness in overall labor market conditions. Growth in employment had been disappointing, with the average monthly increases in payrolls so far this year below last year's pace and below the pace that would be required to make significant progress in reducing the unemployment rate. The unemployment rate declined around the turn of the year but had not fallen significantly since then. In addition, the labor force participation rate and employment-to-population ratios were at or near post-recession lows.

Meeting participants again discussed the extent of slack in labor markets. A few participants reiterated their view that the persistently high level of unemployment reflected the effect of structural factors, including mismatches across and within sectors between the skills of the unemployed and those demanded in sectors in which jobs were currently available. It was also suggested that there was an ongoing process of polarization in the labor market, with the share of job opportunities in middle-skill occupations continuing to decline while the shares of low and high skill occupations increased. Both of these views would suggest a lower level of potential output and thus reduced scope for combating unemployment with additional monetary policy stimulus. Several participants, while acknowledging some evidence of structural changes in the labor market, stated again that weak aggregate demand was the principal reason for the high unemployment rate. They saw slack in resource utilization as remaining wide, indicating an important role for additional policy accommodation. Several participants noted the risk that continued high levels of unemployment, even if initially cyclical, might ultimately induce adverse structural changes. In particular, they expressed concerns about the risk that the exceptionally high level of long-term unemployment and the depressed level of labor participation could ultimately lead to permanent negative effects on the skills and prospects of those without jobs, thereby reducing the longer-run normal level of employment and potential output.

Sentiment in financial markets improved notably during the intermeeting period. Participants indicated that recent decisions by the ECB helped ease investors' anxiety about the near-term prospects for the euro. However, participants also observed that significant risks related to the euro-area banking and fiscal crisis remained, and that a number of important issues would have to be resolved in order to achieve further progress toward a comprehensive solution to the crisis. Participants noted that indicators of financial stress in the United States were not especially high and overall conditions in U.S. financial markets remained favorable. Longer-term interest rates were low and supportive of economic growth, while equity prices had risen. One participant noted that, while there were few current signs of excessive risk-taking, low interest rates could ultimately lead to financial imbalances that would be challenging to detect before they became serious problems.

The incoming information on inflation over the intermeeting period was largely in line with participants' expectations. Despite recent increases in the prices of some key commodities, consumer price inflation remained subdued. With longer-term inflation expectations stable and the unemployment rate elevated, participants generally anticipated that inflation over the medium run would likely run at or below the 2 percent rate that the Committee judges to be most consistent with its mandate. Most participants saw the risks to the outlook for inflation as roughly balanced. A few participants felt that maintaining a highly accommodative stance of monetary policy over an extended period could unmoor longer-term inflation expectations and, against a backdrop of higher energy and commodity prices, posed upside risks to inflation. Other participants, by contrast, saw inflation risks as tilted to the

downside, given their expectations for sizable and persistent resource slack.

Participants again exchanged views on the likely benefits and costs of a new large-scale asset purchase program. Many participants anticipated that such a program would provide support to the economic recovery by putting downward pressure on longer-term interest rates and promoting more accommodative financial conditions. A number of participants also indicated that it could lift consumer and business confidence by emphasizing the Committee's commitment to continued progress toward its dual mandate. In addition, it was noted that additional purchases could reinforce the Committee's forward guidance regarding the federal funds rate. Participants discussed the effectiveness of purchases of Treasury securities relative to purchases of agency MBS in easing financial conditions. Some participants suggested that, all else being equal, MBS purchases could be preferable because they would more directly support the housing sector, which remains weak but has shown some signs of improvement of late. One participant, however, objected that purchases of MBS, when compared to purchases of longer-term Treasury securities, would likely result in higher interest rates for many borrowers in other sectors. A number of participants highlighted the uncertainty about the overall effects of additional purchases on financial markets and the real economy. Some participants thought past purchases were useful because they were conducted during periods of market stress or heightened deflation risk and were less confident of the efficacy of additional purchases under present circumstances. A few expressed skepticism that additional policy accommodation could help spur an economy that they saw as held back by uncertainties and a range of structural issues. In discussing the costs and risks that such a program might entail, several participants reiterated their concern that additional purchases might complicate the Committee's efforts to withdraw monetary policy accommodation when it eventually became appropriate to do so, raising the risk of undesirably high inflation in the future and potentially unmooring inflation expectations. One participant noted that an extended period of accommodation resulting from additional asset purchases could lead to excessive risk-taking on the part of some investors and so undermine financial stability over time. The possible adverse effects of large purchases on market functioning were also noted. However, most participants thought these risks could be managed since the Committee could make adjustments to its purchases, as needed, in response to economic developments or to changes in its assessment of their efficacy and costs.

Participants also discussed issues related to the provision of forward guidance regarding the future path of the federal funds rate. It was noted that clear communication and credibility allow the central bank to help shape the public's expectations about policy, which is crucial to managing monetary policy when the federal funds rate is at its effective lower bound. A number of participants questioned the effectiveness of continuing to use a calendar date to provide forward guidance, noting that a change in the calendar date might be interpreted pessimistically as a downgrade of the Committee's economic outlook rather than as conveying the Committee's determination to support the economic recovery. If the public interpreted the statement pessimistically, consumer and business confidence could fall rather than rise. Many participants indicated a preference for replacing the calendar date with language describing the economic factors that the Committee would consider in deciding to raise its target for the federal funds rate. Participants discussed the benefits of such an approach, including the potential for enhanced effectiveness of policy through greater clarity regarding the Committee's future behavior. That approach could also bolster the stimulus provided by the System's holdings of longer-term securities. It was noted that forward guidance along these lines would allow market expectations regarding the federal funds rate to adjust automatically in response to incoming data on the economy. Many participants thought that more-effective forward guidance could be provided by specifying numerical thresholds for labor market and inflation indicators that would be consistent with maintaining the federal funds rate at exceptionally low levels. However, reaching agreement on specific thresholds could be challenging given the diversity of participants' views, and some were reluctant to specify explicit numerical thresholds out of concern that such thresholds would necessarily be too simple to fully capture the complexities of the economy and the policy process or could be incorrectly interpreted as triggers prompting an automatic policy response. In addition, numerical thresholds could be confused with the Committee's longer-term objectives, and so undermine the Committee's credibility. At the conclusion of the discussion, most participants agreed that the use of numerical thresholds could be useful to provide more clarity about the conditionality of the forward guidance but thought that further work would be needed to address the related communications challenges.

Committee Policy Action

Committee members saw the information received over the intermeeting period as suggesting that economic activity had continued to expand at a moderate pace in recent months. However, growth in employment had been slow, and almost all members saw the unemployment rate as still elevated relative to levels that they viewed as consistent with the Committee's mandate. Members generally judged that without additional policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Moreover, while the sovereign and banking crisis in Europe had eased some recently, members still saw strains in global financial conditions as posing significant downside risks to the economic outlook. The possibility of a larger-than-expected fiscal tightening in the United States and slower global growth were also seen as downside risks. Inflation had been subdued, even though the prices of some key commodities had increased recently. Members generally continued to anticipate that, with longer-term inflation expectations stable and given the existing slack in resource utilization, inflation over the medium term would run at or below the Committee's longer-run objective of 2 percent.

In their discussion of monetary policy for the period ahead, members generally expressed concerns about the slow pace of improvement in labor market conditions and all members but one agreed that the outlook for economic activity and inflation called for additional monetary accommodation. Members agreed that such accommodation should be provided through both a strengthening of the forward guidance regarding the federal funds rate and purchases of additional agency MBS at a pace of $40 billion per month. Along with the ongoing purchases of $45 billion per month of longer-term Treasury securities under the maturity extension program announced in June, these purchases will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year, and should put downward pressure on longer-term interest rates, support mortgage markets, and help make broader financial conditions more accommodative. Members also agreed to maintain the Committee's existing policy of reinvesting principal payments from its holdings of agency debt and agency MBS into agency MBS. The Committee agreed that it would closely monitor incoming information on economic and financial developments in coming months, and that if the outlook for the labor market did not improve substantially, it would continue its purchases of agency MBS, undertake additional asset purchases, and employ its other policy tools as appropriate until such improvement is achieved in a context of price stability. This flexible approach was seen as allowing the Committee to tailor its policy response over time to incoming information while incorporating conditional features that clarified the Committee's intention to improve labor market conditions, thereby enhancing the effectiveness of the action by helping to bolster business and consumer confidence. While members generally viewed the potential risks associated with these purchases as manageable, the Committee agreed that in determining the size, pace, and composition of its asset purchases, it would, as always, take appropriate account of the likely efficacy and costs of such purchases. With regard to the forward guidance, the Committee agreed on an extension through mid-2015, in conjunction with language in the statement indicating that it expects that a highly accommodative stance of policy will remain appropriate for a considerable time after the economic recovery strengthens. That new language was meant to clarify that the maintenance of a very low federal funds rate over that period did not reflect an expectation that the economy would remain weak, but rather reflected the Committee's intention to support a stronger economic recovery. One member dissented from the policy decision, on the grounds that he opposed additional asset purchases and preferred to omit the calendar date from the forward guidance; in his view, it would be better to use qualitative language to describe the factors that would influence the Committee's decision to increase the target federal funds rate.

At the conclusion of the discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> "The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. The Committee directs the Desk to continue the maturity extension program it announced in June to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about $267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining

maturities of approximately 3 years or less with a total face value of about $267 billion. For the duration of this program, the Committee directs the Desk to suspend its policy of rolling over maturing Treasury securities into new issues. The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. The Desk is also directed to begin purchasing agency mortgage-backed securities at a pace of about $40 billion per month. The Committee directs the Desk to engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability."

The vote encompassed approval of the statement below to be released at 12:30 p.m.:

"Information received since the Federal Open Market Committee met in August suggests that economic activity has continued to expand at a moderate pace in recent months. Growth in employment has been slow, and the unemployment rate remains elevated. Household spending has continued to advance, but growth in business fixed investment appears to have slowed. The housing sector has shown some further signs of improvement, albeit from a depressed level. Inflation has been subdued, although the prices of some key commodities have increased recently. Longer-term inflation expectations have remained stable.

Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee is concerned that, without further policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Furthermore, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term likely would run at or below its 2 percent objective.

To support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee agreed today to increase policy accommodation by purchasing additional agency mortgage-backed securities at a pace of $40 billion per month. The Committee also will continue through the end of the year its program to extend the average maturity of its holdings of securities as announced in June, and it is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. These actions, which together will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year, should put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.

The Committee will closely monitor incoming information on economic and financial developments in coming months. If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of agency mortgage-backed securities, undertake additional asset purchases, and employ its other policy tools as appropriate until such improvement is achieved in a context of price stability. In determining the size, pace, and composition of its asset purchases, the Committee will, as always, take appropriate account of the likely efficacy and costs of such purchases.

To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after the economic recovery strengthens. In particular, the Committee also decided today to keep the target range for the federal funds rate at 0 to ¼ percent and currently anticipates that exceptionally low levels for the

federal funds rate are likely to be warranted at least through mid-2015."

Voting for this action: Ben Bernanke, William C. Dudley, Elizabeth Duke, Dennis P. Lockhart, Sandra Pianalto, Jerome H. Powell, Sarah Bloom Raskin, Jeremy C. Stein, Daniel K. Tarullo, John C. Williams, and Janet L. Yellen.

Voting against this action: Jeffrey M. Lacker.

Mr. Lacker dissented because he believed that additional monetary stimulus at this time was unlikely to result in a discernible improvement in economic growth without also causing an unwanted increase in inflation. Moreover, he expressed his opposition to the purchase of more MBS, because he viewed it as inappropriate for the Committee to choose a particular sector of the economy to support; purchases of Treasury securities instead would have avoided this effect. Finally, he preferred to omit the description of the time period over which exceptionally low levels for the federal funds rate were likely to be warranted.

Consensus Forecast Experiment

In light of the discussion at the previous FOMC meeting, the subcommittee on communications developed a second experimental exercise intended to shed light on the feasibility and desirability of constructing an FOMC consensus forecast. At this meeting, participants discussed possible formulations of the monetary policy assumptions on which to condition an FOMC consensus forecast and alternative approaches for participants to express their endorsement of the consensus forecast. In conclusion, participants agreed to have a broad discussion of the experiences gathered from the two experimental exercises in conjunction with the October FOMC meeting.

It was agreed that the next meeting of the Committee would be held on Tuesday–Wednesday, October 23–24, 2012. The meeting adjourned at 12:10 p.m. on September 13, 2012.

Notation Vote

By notation vote completed on August 21, 2012, the Committee unanimously approved the minutes of the FOMC meeting held on July 31–August 1, 2012.

William B. English
Secretary

Summary of Economic Projections

In conjunction with the September 12–13, 2012, Federal Open Market Committee (FOMC) meeting, meeting participants—the 7 members of the Board of Governors and the 12 presidents of the Federal Reserve Banks, all of whom participate in the deliberations of the FOMC—submitted their assessments, under each participant's judgment of appropriate monetary policy, of real output growth, the unemployment rate, inflation, and the target federal funds rate for each year from 2012 through 2015 and over the longer run. These assessments were based on information available at the time of the meeting and participants' individual assumptions about the factors likely to affect economic outcomes. The longer-run projections represent each participant's judgment of the rate to which each variable would be expected to converge, over time, under appropriate monetary policy and in the absence of further shocks to the economy. "Appropriate monetary policy" is defined as the future path of policy that participants deem most likely to foster outcomes for economic activity and inflation that best satisfy their individual interpretations of the Federal Reserve's objectives of maximum employment and stable prices.

Overall, the assessments that FOMC participants submitted in September indicated that, under appropriate monetary policy, the pace of economic recovery over the 2012–15 period would gradually pick up and inflation would remain subdued (table 1 and figure 1). Participants judged that the growth rate of real gross domestic product (GDP) would increase somewhat in 2013 and that economic growth in 2014 and 2015 would modestly exceed participants' estimates of the longer-run sustainable rate of growth, while the unemployment rate would decline gradually through 2015. Participants projected that inflation, as measured by the annual change in the price index for personal consumption expenditures (PCE), would run close to or below the FOMC's longer-run inflation objective of 2 percent.

As shown in figure 2, most participants judged that highly accommodative monetary policy was likely to be warranted over the next few years. In particular, 13 participants thought that it would be appropriate for the first increase in the target federal funds rate to occur during 2015 or later. The majority of participants judged that appropriate monetary policy would involve a decision by the Committee, at the September meeting or before long, to undertake significant additional asset purchases.

As in June, participants in September judged the uncertainty associated with the outlook for real activity and the unemployment rate to be unusually high compared with historical norms, with the risks weighted mainly toward slower economic growth and a higher unemployment rate. While a number of participants viewed the uncertainty surrounding their projections for inflation to be unusually high in comparison with historical

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, September 2012

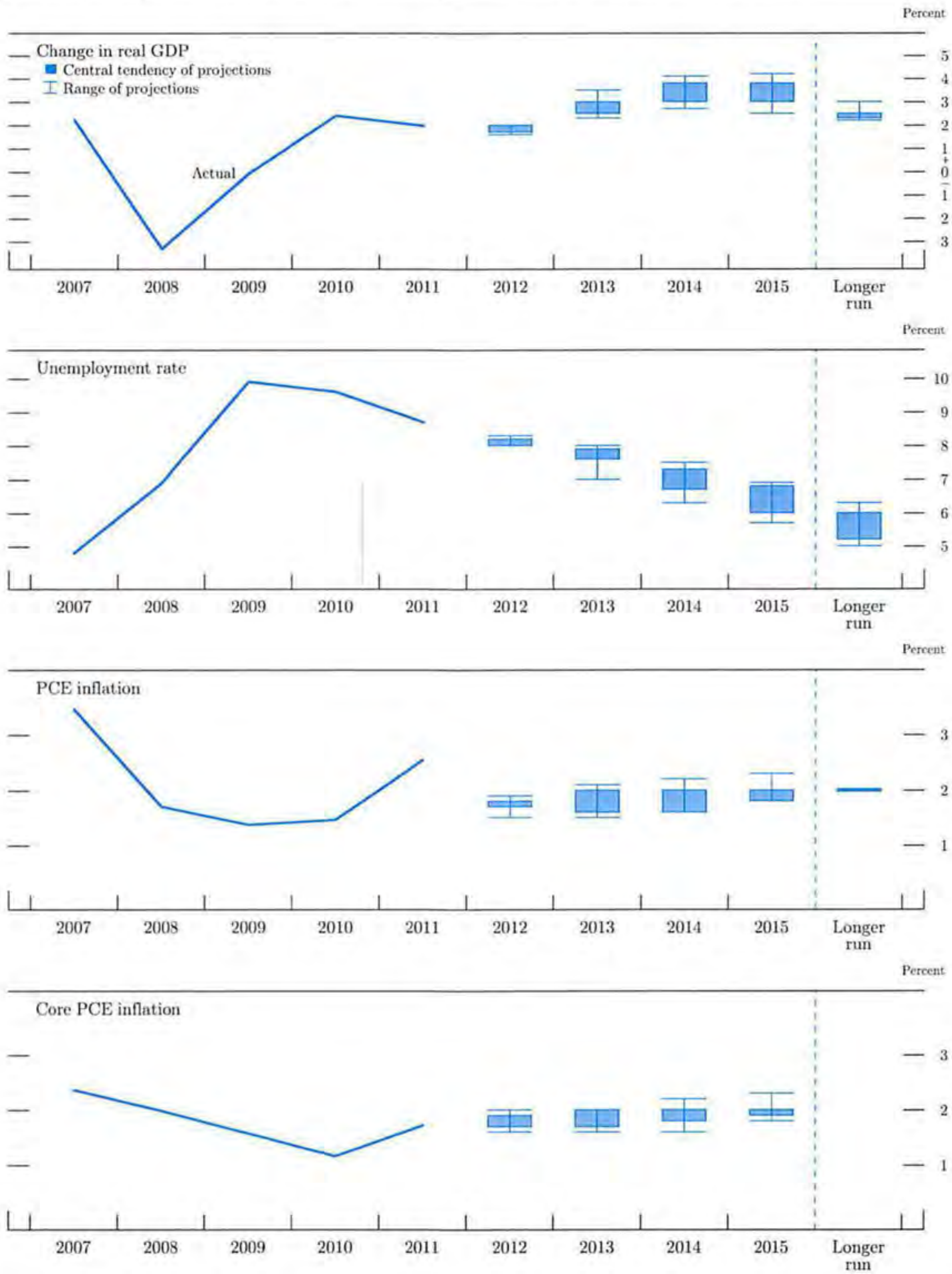
Percent

Variable	Central tendency[1]					Range[2]				
	2012	2013	2014	2015	Longer run	2012	2013	2014	2015	Longer run
Change in real GDP	1.7 to 2.0	2.5 to 3.0	3.0 to 3.8	3.0 to 3.8	2.3 to 2.5	1.6 to 2.0	2.3 to 3.5	2.7 to 4.1	2.5 to 4.2	2.2 to 3.0
June projection	1.9 to 2.4	2.2 to 2.8	3.0 to 3.5	n.a.	2.3 to 2.5	1.6 to 2.5	2.2 to 3.5	2.8 to 4.0	n.a.	2.2 to 3.0
Unemployment rate	8.0 to 8.2	7.6 to 7.9	6.7 to 7.3	6.0 to 6.8	5.2 to 6.0	8.0 to 8.3	7.0 to 8.0	6.3 to 7.5	5.7 to 6.9	5.0 to 6.3
June projection	8.0 to 8.2	7.5 to 8.0	7.0 to 7.7	n.a.	5.2 to 6.0	7.8 to 8.4	7.0 to 8.1	6.3 to 7.7	n.a.	4.9 to 6.3
PCE inflation	1.7 to 1.8	1.6 to 2.0	1.6 to 2.0	1.8 to 2.0	2.0	1.5 to 1.9	1.5 to 2.1	1.6 to 2.2	1.8 to 2.3	2.0
June projection	1.2 to 1.7	1.5 to 2.0	1.5 to 2.0	n.a.	2.0	1.2 to 2.0	1.5 to 2.1	1.5 to 2.2	n.a.	2.0
Core PCE inflation[3]	1.7 to 1.9	1.7 to 2.0	1.8 to 2.0	1.9 to 2.0		1.6 to 2.0	1.6 to 2.0	1.6 to 2.2	1.8 to 2.3	
June projection	1.7 to 2.0	1.6 to 2.0	1.6 to 2.0	n.a.		1.7 to 2.0	1.4 to 2.1	1.5 to 2.2	n.a.	

NOTE: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The June projections were made in conjunction with the meeting of the Federal Open Market Committee on June 19–20, 2012.

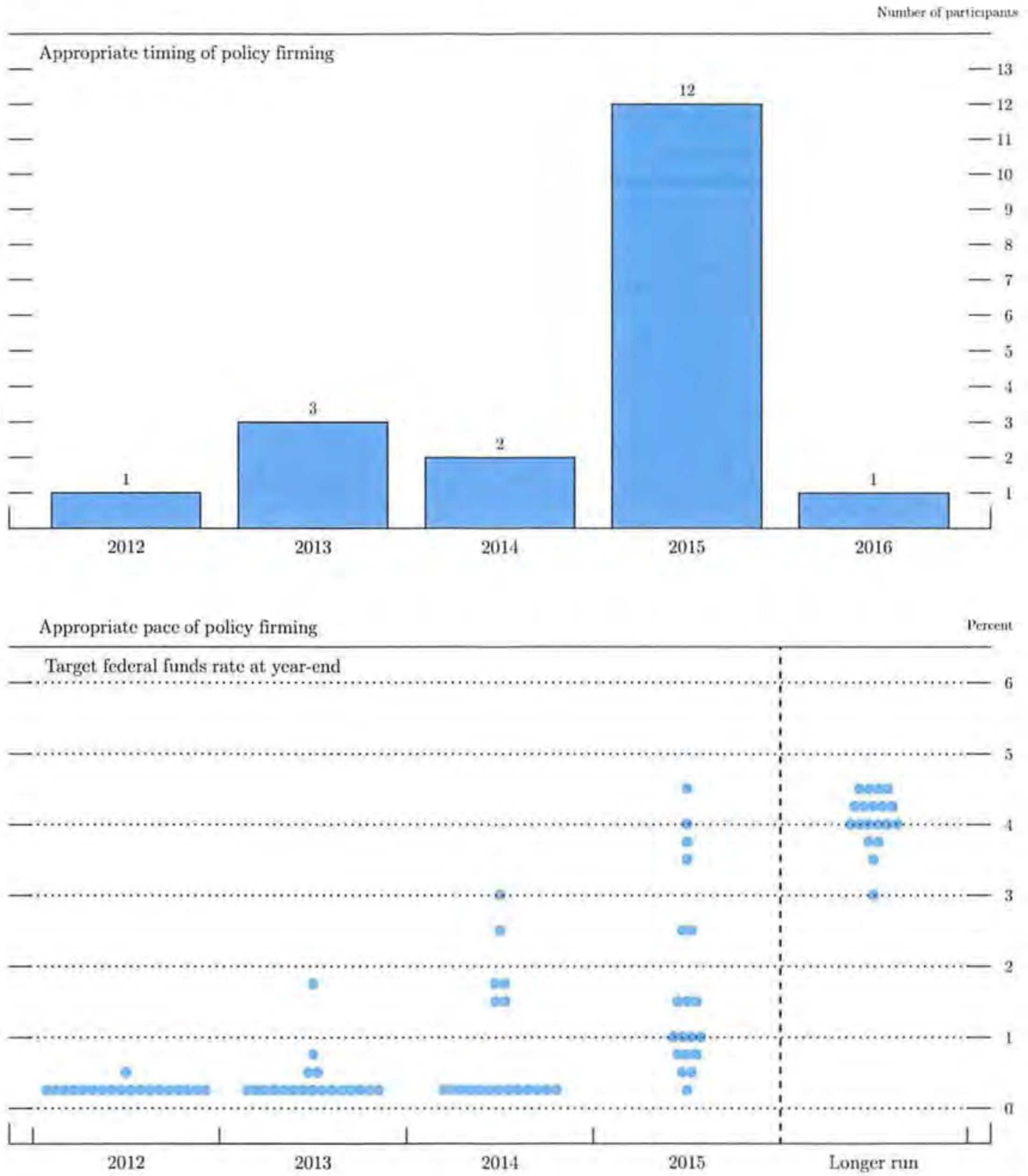
1. The central tendency excludes the three highest and three lowest projections for each variable in each year.
2. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.
3. Longer-run projections for core PCE inflation are not collected.

Figure 1. Central tendencies and ranges of economic projections, 2012–15 and over the longer run



NOTE: Definitions of variables are in the general note to table 1. The data for the actual values of the variables are annual.

Figure 2. Overview of FOMC participants' assessments of appropriate monetary policy, September 2012



NOTE: In the upper panel, the height of each bar denotes the number of FOMC participants who judge that, under appropriate monetary policy, the first increase in the target federal funds rate from its current range of 0 to 1/4 percent will occur in the specified calendar year. In June 2012, the numbers of FOMC participants who judged that the first increase in the target federal funds rate would occur in 2012, 2013, 2014, and 2015 were, respectively, 3, 3, 7, and 6. In the lower panel, each shaded circle indicates the value (rounded to the nearest 1/4 percentage point) of an individual participant's judgment of the appropriate level of the target federal funds rate at the end of the specified calendar year or over the longer run.

norms, many judged it to be broadly similar to historical norms, and most considered the risks to inflation to be roughly balanced.

The Outlook for Economic Activity

Conditional on their individual assumptions about appropriate monetary policy, participants judged that the economy would grow at a moderate pace over coming quarters and then pick up somewhat in 2013 before expanding in 2014 and 2015 at a rate modestly above what participants saw as the longer-run rate of output growth. The central tendency of their projections for the change in real GDP in 2012 was 1.7 to 2.0 percent, somewhat lower than in June. Many participants characterized the incoming data as having been to the weak side of their expectations at the time of the June meeting; several participants also cited the severe drought as a factor causing them to mark down their projections for economic growth in 2012. However, participants' projections for 2013 and 2014 were generally slightly higher than in June; this reflected, in part, a greater assumed amount of monetary policy accommodation than in their June submissions as well as some improvement since then in the outlook for economic activity in Europe. The central tendency of participants' projections for real GDP growth in 2013 was 2.5 to 3.0 percent, followed by central tendencies for both 2014 and 2015 of 3.0 to 3.8 percent. The central tendency for the longer-run rate of increase of real GDP remained at 2.3 to 2.5 percent, unchanged from June. While most participants noted that the increased degree of monetary policy accommodation assumed in their projections would help promote a faster recovery, participants cited several headwinds that would be likely to hold back the pace of economic expansion over the forecast period, including slower growth abroad, a still-weak housing market, the difficult fiscal and financial situation in Europe, and fiscal restraint in the United States.

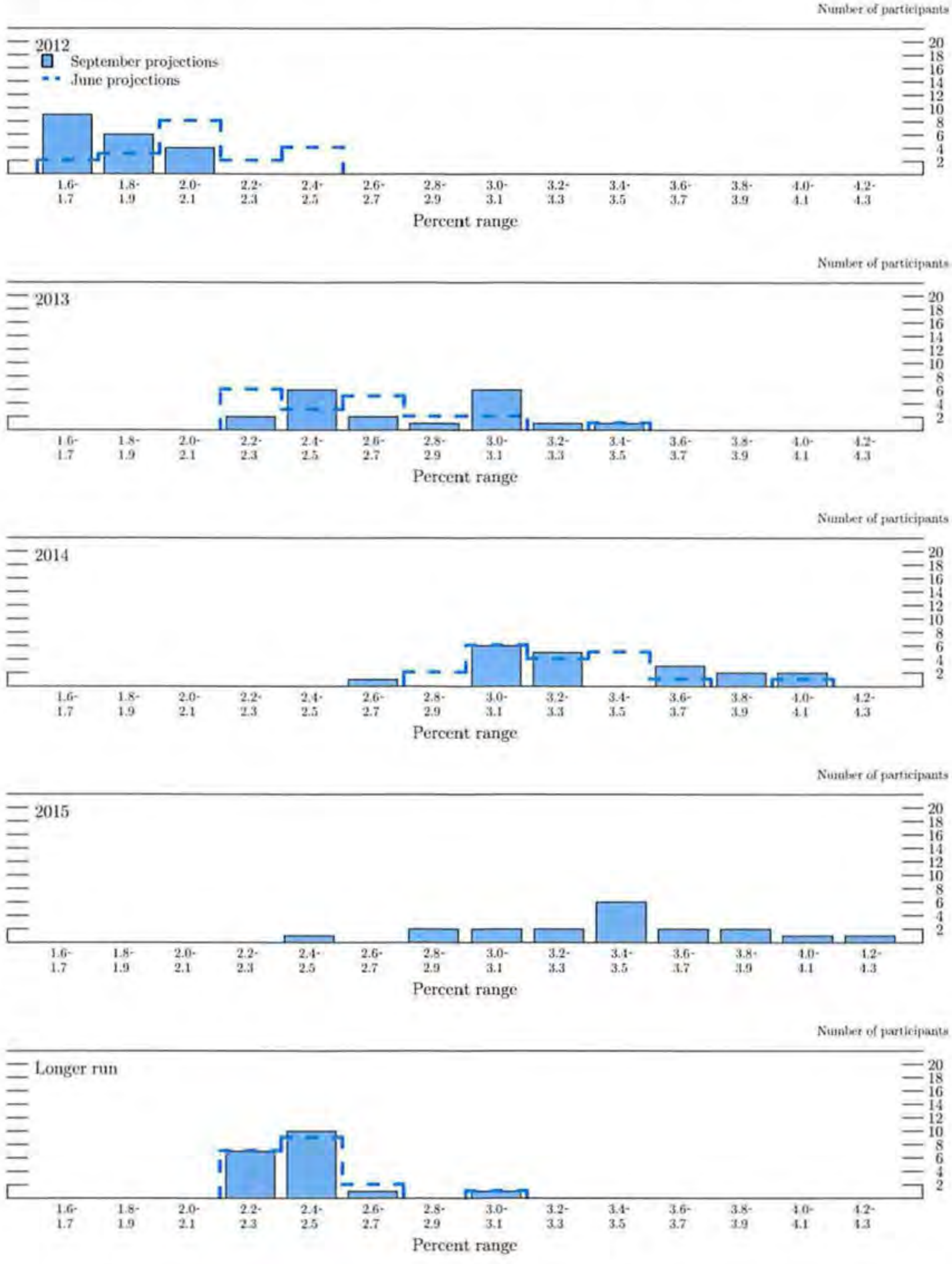
Participants projected the unemployment rate at the end of 2012 to remain close to recent levels, with a central tendency of 8.0 to 8.2 percent, the same as in their June submissions. Participants anticipated gradual improvement from 2013 through 2015; even so, they generally thought that the unemployment rate at the end of 2015 would still lie well above their individual estimates of its longer-run normal level. The central tendencies of participants' forecasts for the unemployment rate were 7.6 to 7.9 percent at the end of 2013, 6.7 to 7.3 percent at the end of 2014, and 6.0 to 6.8 percent at the end of 2015. The central tendency of participants' estimates of the longer-run normal rate of unemployment that would prevail under the assumption of appropriate monetary policy and in the absence of further shocks to the economy was 5.2 to 6.0 percent, unchanged from June. Most participants projected that the gap between the current unemployment rate and their estimates of its longer-run normal rate would be closed in five or six years, while a few judged that less time would be needed.

Figures 3.A and 3.B provide details on the diversity of participants' views regarding the likely outcomes for real GDP growth and the unemployment rate over the next three years and over the longer run. The dispersion in these projections reflects differences in participants' assessments of many factors, including appropriate monetary policy and its effects on the economy, the rate of improvement in the housing sector, the spillover effects of the fiscal and financial situation in Europe, the prospective path for U.S. fiscal policy, the extent of structural dislocations in the labor market, the likely evolution of credit and financial market conditions, and longer-term trends in productivity and the labor force. With much of the data for the first eight months of 2012 now in hand, the dispersion of participants' projections of real GDP growth and the unemployment rate this year narrowed in September compared with June. The range of participants' forecasts for the change in real GDP in 2013 and 2014, however, was little changed from June, on balance. The distribution of projections for the unemployment rate was not much altered for 2013, while for 2014 it narrowed a bit and shifted down slightly. The range for the unemployment rate for 2015 was 5.7 to 6.9 percent. As in June, the dispersion of estimates for the longer-run rate of output growth was fairly narrow, with the values being mostly from 2.2 to 2.7 percent. The range of participants' estimates of the longer-run rate of unemployment was 5.0 to 6.3 percent, a similar range to that in June; this range reflected different judgments among participants about several factors, including the outlook for labor force participation and the structure of the labor market.

The Outlook for Inflation

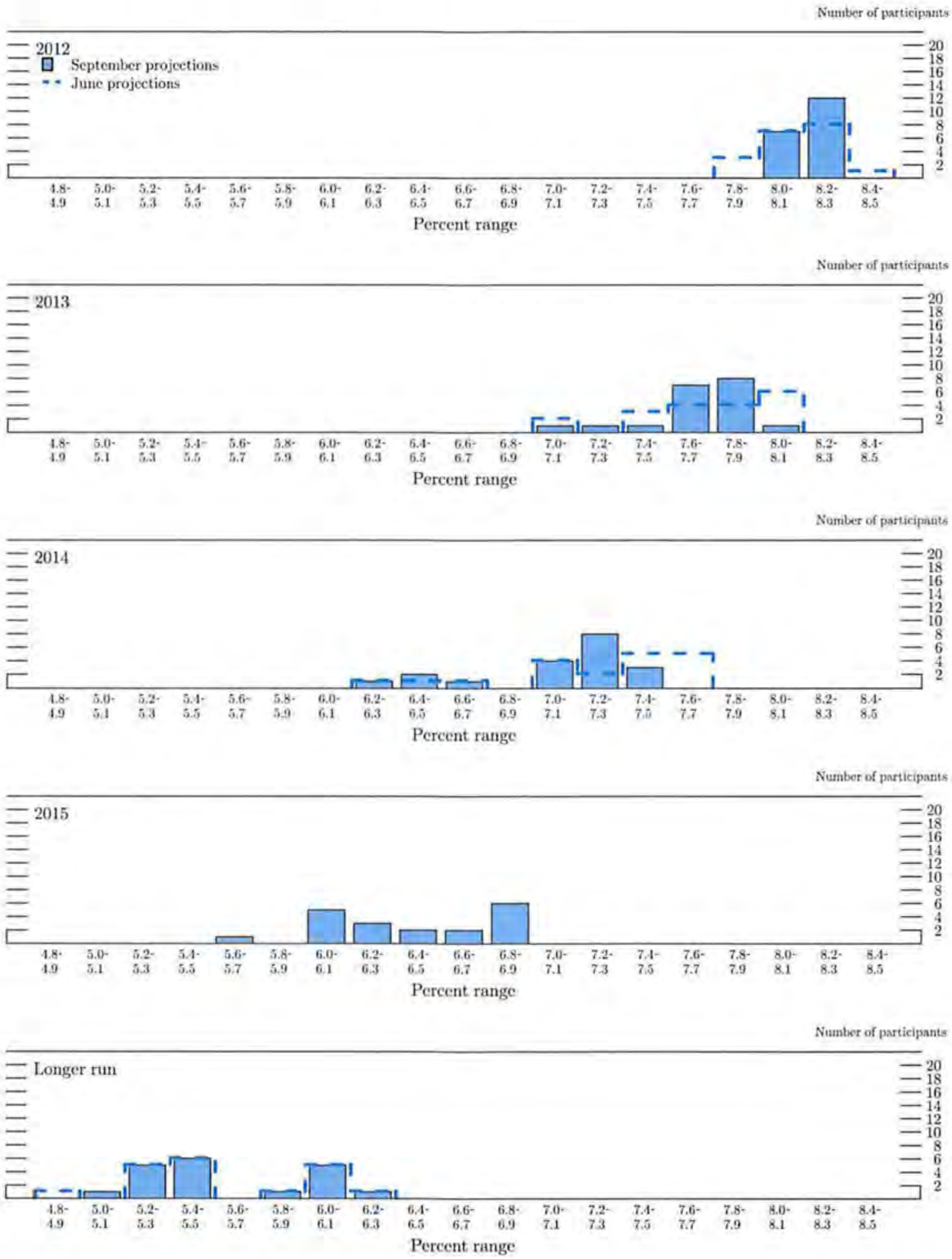
Participants' views on the broad outlook for inflation under the assumption of appropriate monetary policy were little changed from June. For 2012 as a whole, most anticipated that overall inflation would be only slightly above its average annual rate of 1.6 percent over the first half of the year; a number of participants pointed to higher food prices in response to the drought, along with recent increases in oil prices, as temporary sources of upward pressure on the headline

Figure 3.A. Distribution of participants' projections for the change in real GDP, 2012–15 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

Figure 3.B. Distribution of participants' projections for the unemployment rate, 2012–15 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

rate. Almost all participants judged that both headline and core inflation would remain subdued over the 2013–15 period, running at rates at or below the FOMC's longer-run objective of 2 percent. In pointing to factors likely to restrain price pressures, several participants cited sizable resource slack and stable inflation expectations, while a few noted the subdued behavior of labor compensation. Specifically, the central tendency of participants' projections for inflation, as measured by the PCE price index, moved up and tightened to 1.7 to 1.8 percent for 2012 and was little changed for 2013 and 2014 at 1.6 to 2.0 percent. For 2015, the central tendency was 1.8 to 2.0 percent. The central tendencies of the forecasts for core inflation were broadly similar to those for the headline measure for 2013 through 2015.

Figures 3.C and 3.D provide information about the diversity of participants' views about the outlook for inflation. Participants' projections for headline inflation for 2012, which in June had ranged from 1.2 to 2 percent, narrowed in September to the range of 1.5 to 1.9 percent; about three-fourths of participants' projections took values of 1.7 to 1.8 percent, broadly in line with recent inflation readings. The distributions of participants' projections for headline inflation in 2013 and 2014 were very similar to those for June, while the range of projections for core inflation narrowed slightly for both years. The distributions for core and overall inflation in 2015 were concentrated near the Committee's longer-run inflation objective of 2 percent.

Appropriate Monetary Policy

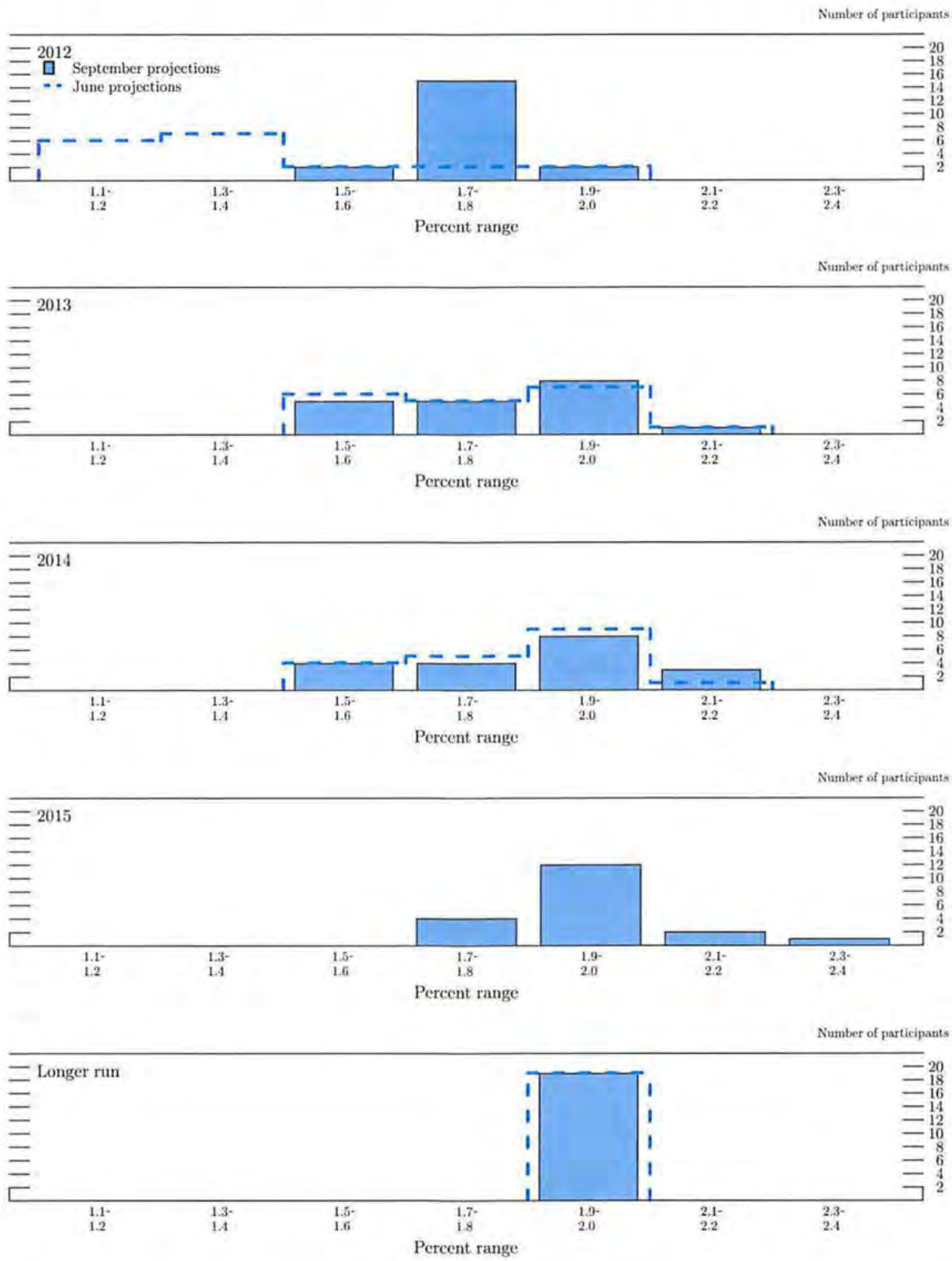
As indicated in figure 2, most participants judged that exceptionally low levels of the federal funds rate would remain appropriate for several more years. In particular, 12 participants thought that the first increase in the target federal funds rate would not be warranted until 2015, and 1 viewed a start to firming in 2016 as appropriate (upper panel). The 12 participants who expected that the target federal funds rate would not move above its effective lower bound until 2015 thought the federal funds rate would be 1.6 percent or lower at the end of that year, while the one participant who expected that policy firming would commence in 2016 saw the funds rate target at 75 basis points at the end of that year. Six participants judged that policy firming in 2012, 2013, or 2014 would be consistent with the Committee's statutory mandate. Those participants judged that the appropriate value for the federal funds rate would range from 1½ to 3 percent at the end of 2014 and from 2½ to 4½ percent at the end of 2015. In total, 14 participants judged that appropriate monetary policy called for a more-accommodative path for the federal funds rate than in their June submissions, involving either a lower target for the federal funds rate at the end of the initial year of policy firming, or a shift out in the first year of firming.

All participants reported levels for the appropriate target federal funds rate at the end of 2014 that were well below their estimates of the level expected to prevail in the longer run, and most saw the appropriate target federal funds rate as still well below its longer-run value at the end of 2015. Estimates of the longer-run target federal funds rate ranged from 3 to 4½ percent, reflecting the Committee's inflation objective of 2 percent and participants' judgments about the longer-run equilibrium level of the real federal funds rate.

Participants also provided qualitative information on their views regarding the appropriate path of the Federal Reserve's balance sheet. Eleven participants indicated that appropriate policy would involve a decision by the Committee, at the September meeting or soon thereafter, to undertake significant additional asset purchases. Several participants envisioned this program as entailing purchases of agency mortgage-backed securities. Almost all participants assumed that, at the appropriate time, the Committee would carry out the normalization of the balance sheet according to the principles approved at the June 2011 FOMC meeting. In general, participants linked their preferred start dates for the normalization process to their views for the appropriate timing of the first increase in the target federal funds rate.

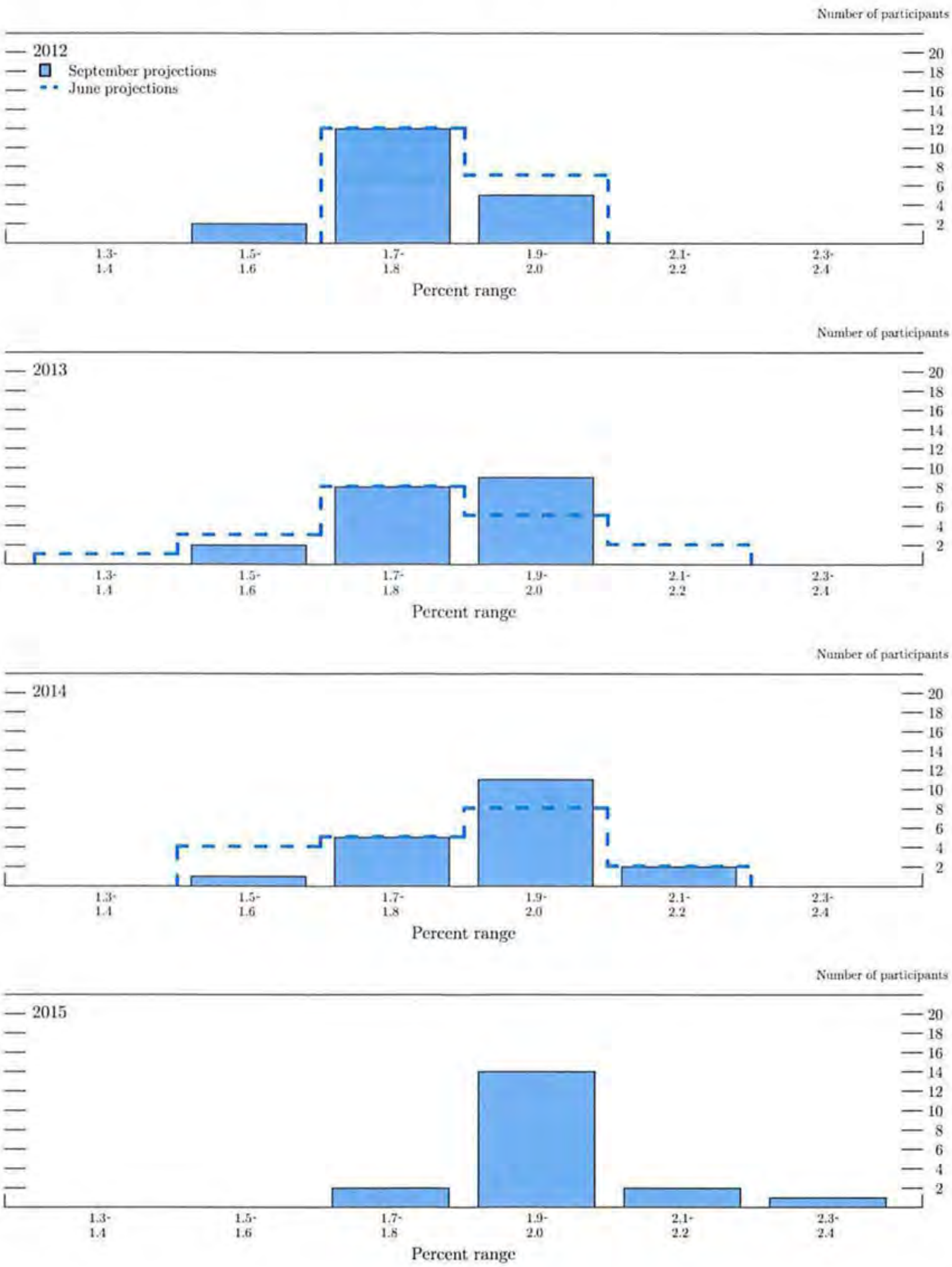
The key factors informing participants' individual assessments of the appropriate setting for monetary policy included their judgments regarding labor market conditions that would be consistent with the maximum level of employment, the extent to which employment currently deviated from the maximum level of employment, the extent to which inflation deviated from the Committee's longer-term objective of 2 percent, and participants' projections of the likely time horizon necessary to return employment and inflation to mandate-consistent levels. Several participants noted that their assessments of appropriate monetary policy reflected the subpar pace of labor market improvement and the persistent shortfall of output from potential since the 2007–09 recession. A few participants noted that their settings of appropriate federal funds rate policy took into account unusual factors prevailing in recent years, such as the likelihood that the neutral level of the federal funds rate was somewhat below its his-

Figure 3.C. Distribution of participants' projections for PCE inflation, 2012–15 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

Figure 3.D. Distribution of participants' projections for core PCE inflation, 2012–15



NOTE: Definitions of variables are in the general note to table 1.

torical norm and the fact that policy rate setting had been constrained by the effective lower bound on nominal interest rates. Two participants expressed concern that a protracted period of very accommodative monetary policy could lead to imbalances in the financial system. Participants also noted that because the appropriate stance of monetary policy is conditional on the evolution of real activity and inflation over time, their assessments of the appropriate future path of the federal funds rate and the balance sheet could change if economic conditions were to evolve in an unexpected manner.

Figure 3.E details the distribution of participants' judgments regarding the appropriate level of the target federal funds rate at the end of each calendar year from 2012 to 2015 and over the longer run. As previously noted, most participants judged that economic conditions would warrant maintaining the current low level of the federal funds rate through the end of 2014. Views on the appropriate level of the federal funds rate at the end of 2015 were more widely dispersed, with 10 participants seeing the appropriate level of the federal funds rate as 1 percent or lower and 6 of them seeing the appropriate rate as 2½ percent or higher. Those who judged that a longer period of very accommodative monetary policy would be appropriate generally were participants who projected a sizable gap between the unemployment rate and the longer-run normal level of the unemployment rate until 2015 or later. In contrast, the 6 participants who judged that policy firming should begin in 2012, 2013, or 2014 indicated that the Committee would need to act relatively soon in order to keep inflation near the FOMC's longer-run objective of 2 percent and to prevent a rise in inflation expectations.

Uncertainty and Risks

Nearly all participants judged that their current level of uncertainty about real GDP growth and unemployment was higher than was the norm during the previous 20 years (figure 4).[1] Eight participants judged the level of uncertainty associated with their forecasts of total PCE inflation to be higher as well, while another 10 participants viewed uncertainty about inflation as

Table 2. Average historical projection error ranges
Percentage points

Variable	2012	2013	2014	2015
Change in real GDP[1]	±0.6	±1.4	±1.7	±1.7
Unemployment rate[1]	±0.2	±0.9	±1.5	±1.9
Total consumer prices[2]	±0.5	±0.9	±1.1	±1.0

NOTE: Error ranges shown are measured as plus or minus the root mean squared error of projections for 1992 through 2011 that were released in the fall by various private and government forecasters. As described in the box "Forecast Uncertainty," under certain assumptions, there is about a 70 percent probability that actual outcomes for real GDP, unemployment, and consumer prices will be in ranges implied by the average size of projection errors made in the past. Further information may be found in David Reifschneider and Peter Tulip (2007), "Gauging the Uncertainty of the Economic Outlook from Historical Forecasting Errors," Finance and Economics Discussion Series 2007-60 (Washington: Board of Governors of the Federal Reserve System, November).

1. Definitions of variables are in the general note to table 1.

2. Measure is the overall consumer price index, the price measure that has been most widely used in government and private economic forecasts. Projection is percent change, fourth quarter of the previous year to the fourth quarter of the year indicated.

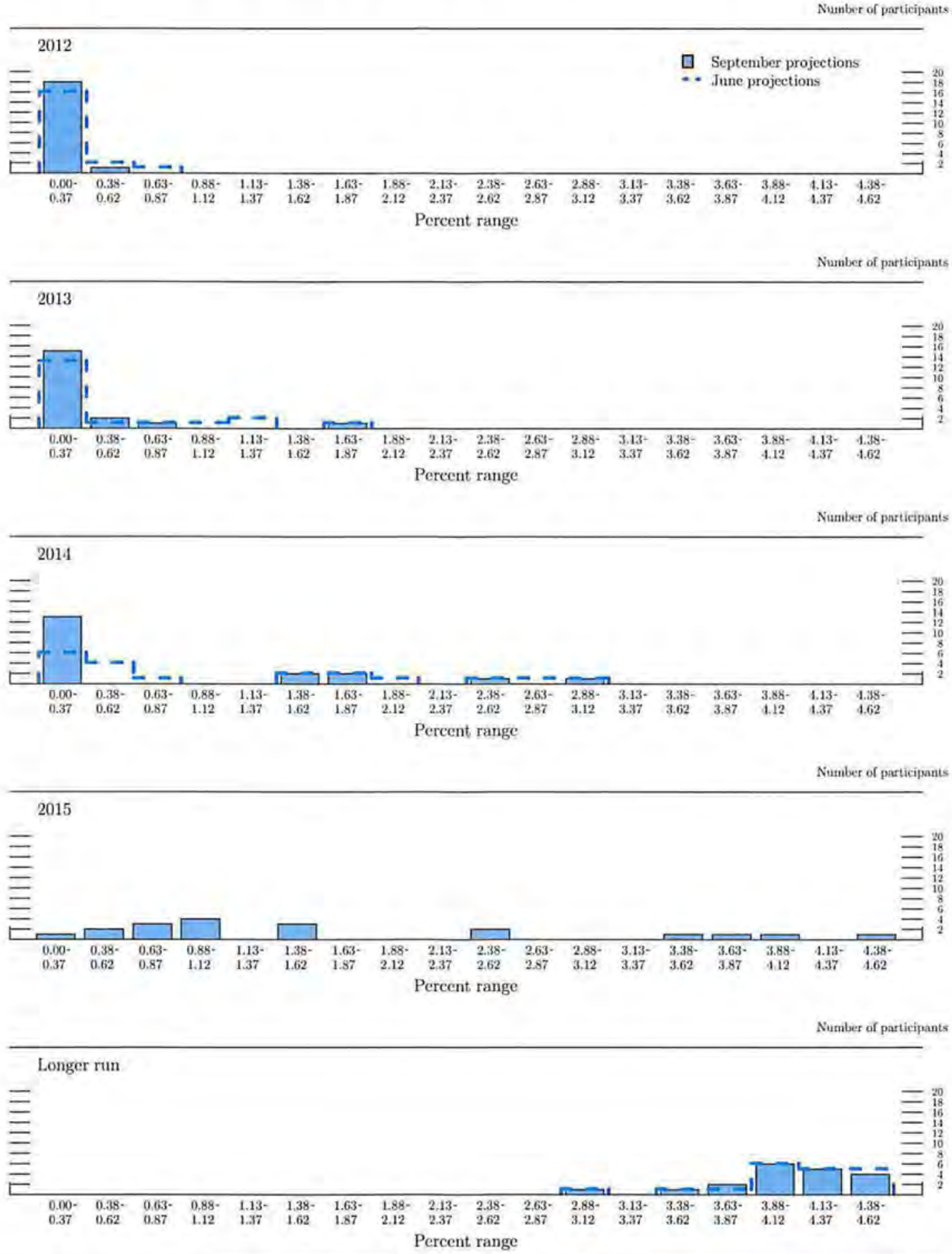
broadly similar to historical norms. The main factors cited as contributing to the elevated uncertainty about economic outcomes were the ongoing fiscal and financial situation in Europe, the outlook for fiscal policy in the United States, and a general slowdown in global economic growth, including the possibility of a significant slowdown in China. As in June, participants noted the difficulties associated with forecasting the path of the U.S. economic recovery following a financial crisis and recession that differed markedly from recent historical experience. A number of participants commented that in the aftermath of the financial crisis, they were more uncertain about the level of potential output and its rate of growth. A couple of participants noted that some of the uncertainty about potential output arose from the risk that continuation of long-term unemployment might impair the skill level of the labor force or cause some workers to retire earlier than would otherwise have been the case, thereby reducing potential output in the medium term.

A majority of participants reported that they saw the risks to their forecasts of real GDP growth as weighted toward the downside and, accordingly, the risks to their projections of the unemployment rate as tilted to the upside. The most frequently identified sources of risk were the situation in Europe, which many participants thought had the potential to slow global economic activity further, particularly over the near term, and issues associated with fiscal policy in the United States.

Most participants continued to judge the risks to their projections for inflation as broadly balanced, with several highlighting the recent stability of inflation expecta-

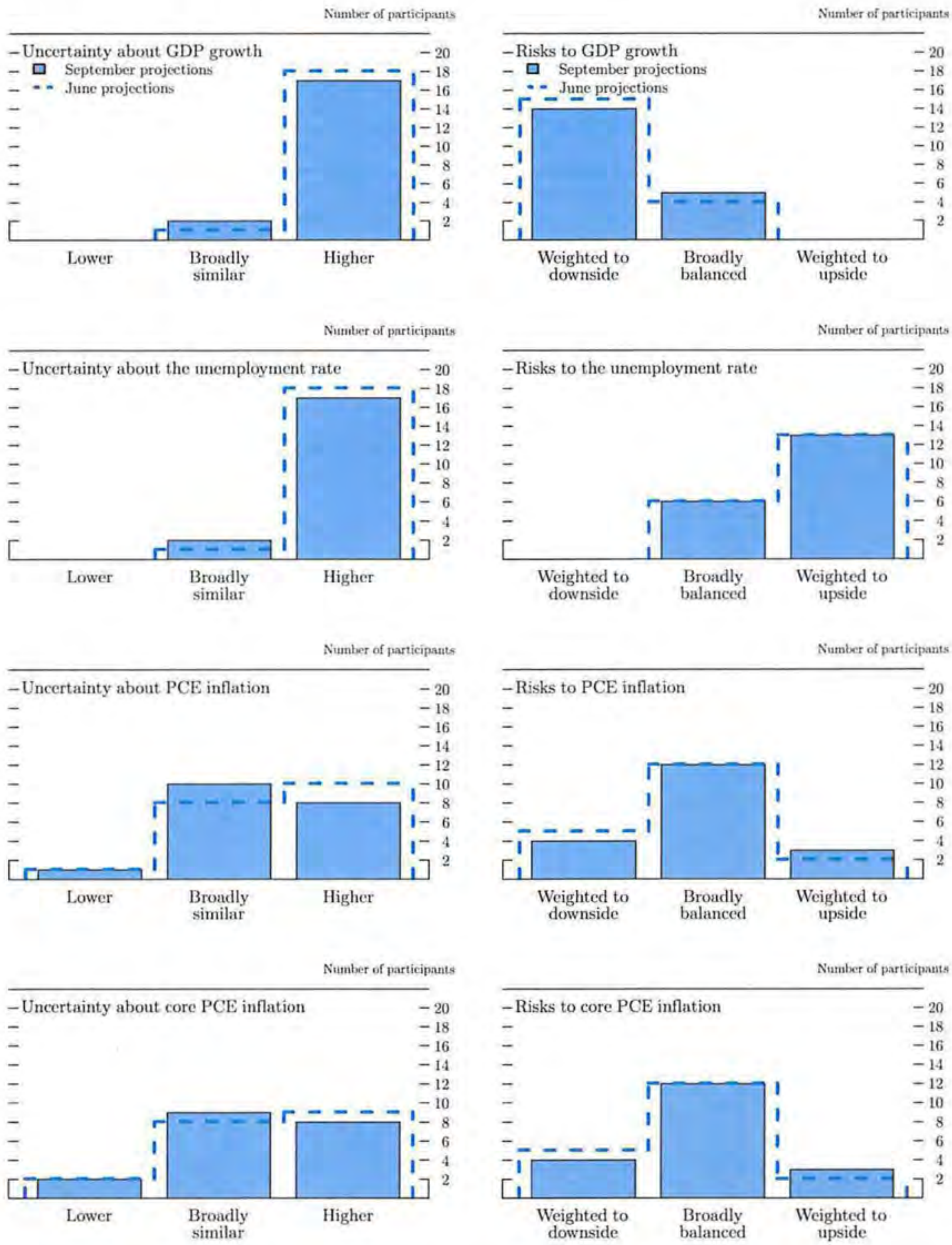
[1] Table 2 provides estimates of the forecast uncertainty for the change in real GDP, the unemployment rate, and total consumer price inflation over the period from 1991 to 2011. At the end of this summary, the box "Forecast Uncertainty" discusses the sources and interpretation of uncertainty in the economic forecasts and explains the approach used to assess the uncertainty and risks attending the participants' projections.

Figure 3.E. Distribution of participants' projections for the target federal funds rate, 2012–15 and over the longer run



NOTE: The target federal funds rate is measured as the level of the target rate at the end of the calendar year or in the longer run.

Figure 4. Uncertainty and risks in economic projections



NOTE: For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty." Definitions of variables are in the general note to table 1.

tions. However, four participants saw the risks to inflation as tilted to the downside, with a couple of them noting that slack in resource markets could turn out to be greater than they were anticipating. Three participants saw the risks to inflation as weighted to the upside in light of concerns about U.S. fiscal imbalances, the current highly accommodative stance of monetary policy, and uncertainty about the Committee's ability to shift to a less accommodative policy stance when it becomes appropriate to do so.

Forecast Uncertainty

The economic projections provided by the members of the Board of Governors and the presidents of the Federal Reserve Banks inform discussions of monetary policy among policymakers and can aid public understanding of the basis for policy actions. Considerable uncertainty attends these projections, however. The economic and statistical models and relationships used to help produce economic forecasts are necessarily imperfect descriptions of the real world, and the future path of the economy can be affected by myriad unforeseen developments and events. Thus, in setting the stance of monetary policy, participants consider not only what appears to be the most likely economic outcome as embodied in their projections, but also the range of alternative possibilities, the likelihood of their occurring, and the potential costs to the economy should they occur.

Table 2 summarizes the average historical accuracy of a range of forecasts, including those reported in past *Monetary Policy Reports* and those prepared by the Federal Reserve Board's staff in advance of meetings of the Federal Open Market Committee. The projection error ranges shown in the table illustrate the considerable uncertainty associated with economic forecasts. For example, suppose a participant projects that real gross domestic product (GDP) and total consumer prices will rise steadily at annual rates of, respectively, 3 percent and 2 percent. If the uncertainty attending those projections is similar to that experienced in the past and the risks around the projections are broadly balanced, the numbers reported in table 2 would imply a probability of about 70 percent that actual GDP would expand within a range of 2.4 to 3.6 percent in the current year, 1.6 to 4.4 percent in the second year, and 1.3 to 4.7 percent in the third and fourth years. The corresponding 70 percent confidence intervals for overall inflation would be 1.5 to 2.5 percent in the current year, 1.1 to 2.9 percent in the second year, 0.9 to 3.1 percent in the third year, and 1.0 to 3.0 percent in the fourth year.

Because current conditions may differ from those that prevailed, on average, over history, participants provide judgments as to whether the uncertainty attached to their projections of each variable is greater than, smaller than, or broadly similar to typical levels of forecast uncertainty in the past, as shown in table 2. Participants also provide judgments as to whether the risks to their projections are weighted to the upside, are weighted to the downside, or are broadly balanced. That is, participants judge whether each variable is more likely to be above or below their projections of the most likely outcome. These judgments about the uncertainty and the risks attending each participant's projections are distinct from the diversity of participants' views about the most likely outcomes. Forecast uncertainty is concerned with the risks associated with a particular projection rather than with divergences across a number of different projections.

As with real activity and inflation, the outlook for the future path of the federal funds rate is subject to considerable uncertainty. This uncertainty arises primarily because each participant's assessment of the appropriate stance of monetary policy depends importantly on the evolution of real activity and inflation over time. If economic conditions evolve in an unexpected manner, then assessments of the appropriate setting of the federal funds rate would change from that point forward.

Transcript of Chairman Bernanke's Press Conference
September 13, 2012

CHAIRMAN BERNANKE. Good afternoon. Earlier today the Federal Open Market Committee (FOMC) approved new measures to support the recovery and employment growth. I'll get to the specifics of our actions in a few moments, but I'll first describe the economic conditions that motivated the Committee's decision to take additional actions.

As you know, the Federal Reserve conducts monetary policy under a dual mandate from Congress to promote maximum employment and price stability. The United States has enjoyed broad price stability since the mid-1990s and continues to do so today. The employment situation, however, remains a grave concern. While the economy appears to be on a path of moderate recovery, it isn't growing fast enough to make significant progress reducing the unemployment rate. Fewer than half of the 8 million jobs lost in the recession have been restored. And, at 8.1 percent, the unemployment rate is nearly unchanged since the beginning of the year and is well above normal levels.

The weak job market should concern every American. High unemployment imposes hardship on millions of people, and it entails a tremendous waste of human skills and talents. Five million Americans have been unemployed for more than six months, and millions more have left the labor force—many of them doubtless because they have given up on finding suitable work. As the skills of the long-term unemployed atrophy and as their connections to the labor market wither, they may find it increasingly difficult to get good jobs, to their and their families' cost, of course, but also to the detriment of our nation's productive potential.

To help bolster the recovery and promote price stability, the FOMC has provided unprecedented levels of policy accommodation in recent years. With our main policy interest rate near its effective lower bound, we have been using two complementary tools to carry out monetary policy—balance sheet actions and forward guidance regarding how long we anticipate maintaining exceptional levels of policy accommodation. While providing this support, we have been prudent, carefully weighing the potential benefits and costs of each new policy action, and recognizing that monetary policy, particularly in the current circumstances, cannot cure all economic ills.

The FOMC has taken several actions this year. In January, it extended its forward guidance, stating that it anticipated that the federal funds rate will remain near current levels until late 2014. In June, the Committee decided to continue through the end of the year the previously established program to extend the average maturity of the securities it holds by buying longer-term securities and selling an equivalent amount of shorter-term securities. However, incoming data confirm that the modest pace of growth continues to be inadequate to generate much progress on unemployment. With inflation anticipated to run at or below our 2 percent objective, the Committee has become convinced that further policy accommodation is warranted to strengthen the recovery and support the gains we have begun to see in housing and other sectors.

Accordingly, the FOMC decided today on new actions, electing to expand its purchases of securities and extend its forward guidance regarding the federal funds rate. Specifically, the Committee decided to purchase additional agency mortgage-backed securities, or MBS, at a pace of $40 billion per month. The new MBS purchases—combined with the existing maturity extension program and the continued reinvestment of principal payments from agency debt and agency MBS already on our balance sheet—will result in an increase in our holdings of longer-term securities of about $85 billion each month for the remainder of the year. The program of MBS purchases should increase the downward pressure on long-term interest rates more generally, but also on mortgage rates, specifically, which should provide further support for the housing sector by encouraging home purchases and refinancing.

The Committee also took two steps to underscore its commitment to ongoing support for the recovery. First, the Committee will closely monitor incoming information on economic and financial developments in coming months, and if we do not see substantial improvement in the outlook for the labor market, we will continue the MBS purchase program, undertake additional asset purchases, and employ our policy tools as appropriate until we do. We will be looking for the sort of broad-based growth in jobs and economic activity that generally signal sustained improvement in labor market conditions and declining unemployment. Of course, in determining the size, pace, and composition of any additional asset purchases, we will, as always, take appropriate account of the inflation outlook and of their efficacy and costs.

Additionally, the Committee emphasized that it expects a highly accommodative stance of monetary policy to remain appropriate for a considerable time after the economic recovery strengthens. This should provide greater assurance to households and businesses that policy accommodation will remain even as the economy picks up. In particular, the Committee today kept the target range for the federal funds rate at 0 to ¼ percent and stated that it anticipates that exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015.

In conjunction with today's meeting, FOMC participants—the 7 Board members and 12 Reserve Bank presidents—submitted their individual economic projections and policy assessments for the years 2012 through 2015 and over the longer run. Committee participants' projections for the unemployment rate in the fourth quarter of this year have a central tendency of 8.0 to 8.2 percent, declining to 6.0 to 6.8 percent in the fourth quarter of 2015, levels that remain somewhat above participants' estimates of the longer-run normal rate of unemployment. Participants' projections of inflation have a central tendency of 1.7 percent to 1.8 percent for this year and 1.8 percent to 2.0 percent for 2015.

While the economy appears to be advancing at a moderate pace, with some improvements appearing in housing and elsewhere, FOMC participants see an economic outlook that remains uncertain. The economy continues to face economic headwinds, including the situation in Europe; tight credit for some borrowers; and fiscal contraction at the federal, state, and local levels. In addition, strains in global financial markets continue to pose significant downside risks.

Before I take your questions, I'd like to briefly address three concerns that have been raised about the Federal Reserve's accommodative monetary policy. The first is the notion that the Federal Reserve's securities purchases are akin to fiscal spending. The second is that a policy of very low rates hurts savers. The third is that the Federal Reserve's policies risk inflation down the road.

On the first concern, I want to emphasize that the Fed's purchases of longer-term securities are not comparable to government spending. The Federal Reserve buys financial assets, not goods and services. Ultimately, the Federal Reserve will normalize its balance sheet by selling these financial assets back into the market or by allowing them to mature. In the interim, the Federal Reserve's earnings from its holdings of securities are remitted to the Treasury. In fact, the odds are strong that the Fed's asset purchase programs, both through their net interest earnings and by strengthening the overall economy, will help reduce rather than increase the federal deficit and debt.

On the second concern, my colleagues and I are very much aware that holders of interest-bearing assets, such as certificates of deposit, are receiving very low returns. But low interest rates also support the value of many other assets that Americans own, such as homes and businesses large and small. Indeed, in general, healthy investment returns cannot be sustained in a weak economy, and, of course, it is difficult to save for retirement or other goals without the income from a job. Thus, while low interest rates do impose some costs, Americans will ultimately benefit most from the healthy and growing economy that low interest rates help promote.

And finally, on inflation: Inflation has varied in recent years with swings in global food and fuel prices caused by a range of factors, such as drought and geopolitical tensions. However, overall inflation has averaged very close to the Committee's goal of 2 percent per year for quite a few years now, and a variety of measures show that longer-term inflation expectations are quite stable. The Federal Reserve is fully committed to both sides of its mandate—to price stability as well as to maximum employment—and it has both the tools and the will to act at the appropriate time to avoid any emerging threat to price stability.

Thank you. I'd be happy to respond to your questions.

DARREN GERSH. Hi, Mr. Chairman, it's Darren Gersh, *Nightly Business Report*. Your forecast doesn't get back to full employment for four years, so could these new bond purchases go on for years? And can you give us a better idea of when you'll—if you have specifics in mind on when you'll know it's time to stop?

CHAIRMAN BERNANKE. Yes. We'll be looking for signs that the economy is strong enough to promote improvement and sustained improvement in labor market conditions and declines in unemployment. I mean, that's—we're not going to be able to sustain purchases until we're all the way back to full employment, that's not the objective. The idea is to quicken the recovery, to help the economy begin to grow quickly enough to generate new jobs and reduce the unemployment rate. So that's the criterion we're looking at.

KRISTINA PETERSON. Kristina Peterson of Dow Jones. The statement indicated that the highly accommodative stance would be maintained until after the recovery starts to strengthen, but there aren't any specific economic conditions that are described. Could you describe what those would be? Or is the Fed—the Fed seems reluctant to have done that so far.

CHAIRMAN BERNANKE. Well, we've been talking about our communications at the FOMC and trying to think about how best to communicate to the public, you know, what our policy reaction function, so to speak, is. And we haven't, to this point, come to a set of numbers, a set of data that we can put out. But what we're trying to convey here is that we're not going to be premature in removing policy accommodation. Even after the economy starts to recover more quickly, even after the unemployment rate begins to move down more decisively, we're not going to rush to begin to tighten policy. We're going to give it some time to make sure the recovery is well established.

STEVE LIESMAN. Mr. Chairman, I want to talk about that same line in the statement. Does that mean that your tolerance for inflation will be higher in coming years, in the middle of the recovery? And, if not, what good is that language there if it doesn't tell people that the reaction function relative to inflation has changed? Secondly, stock prices are up today, so are oil prices and gold. Why aren't those part of the same reaction to the Fed's acts today?

CHAIRMAN BERNANKE. Well, our policy approach doesn't involve intentionally trying to raise inflation. That's not the objective. The idea is to make sure we provide enough support so the economy will grow fast enough to bring unemployment down over time. I mean, as we look back at the last six months or so, we've seen unemployment at basically the same place it was in January. We've seen not enough jobs growth to bring down the unemployment rate, and what we need to see is more progress. And that's what we will be looking at. In terms of the mid-2015 date, we think by that point that the economy will be recovering, we'll be providing the support it needs. But if you look at our projections, you'll see it doesn't involve any inflation, that we still believe that inflation is going to be close to our 2 percent target.

STEVE LIESMAN. All right, I just need to follow up. Does this—so you're saying it does not include greater tolerance for inflation, that you will—you would reverse course if inflation were to be above your target level, even given that statement?

CHAIRMAN BERNANKE. Well, if inflation goes above the target level, as we talked about in our statement in January, we take a balanced approach. We bring inflation back to the target over time, but we do it in a way that takes into account the deviations of both of our objectives, you know, from their targets.

ZACHARY GOLDFARB. Thank you, Mr. Chairman. Earlier this year, on two occasions, the Fed took policy actions, which you defended as extremely important for the economy, but, as you mentioned, there hasn't been any improvement in the labor markets since the beginning of the year. Why should people believe this will make a difference? And the projections seem to suggest it's approximately a 0.4 reduction in unemployment. Is that the limit of what Fed policies can do going forward?

CHAIRMAN BERNANKE. Well, our assessment—I talked about this at my remarks at Jackson Hole—our assessment, and that of the research literature, is that the policies that we've undertaken have had real benefits for the economy—that they have provided some support, that they have eased financial conditions and help reduce unemployment. All that being said, monetary policy, as I've said many times, is not a panacea. It's not by itself able to solve these problems. We're looking for policymakers in other areas to do their part. We'll do our part, and we'll try to make sure that unemployment moves in the right direction, but we can't solve this problem by ourselves.

ZACHARY GOLDFARB. And do you think that 0.4 percent difference in the projections is about what's possible?

CHAIRMAN BERNANKE. Well, what happens is going to depend on where the economy goes—how much ultimate accommodation we give the economy. The 0.4 percent you're referring to is the change in the forecast between the last projection and this one. But remember, people make projections assuming that policy is appropriate. So some of them may have assumed these policies in their last projections, and not all are assuming these policies in this projection. So that's probably a little bit of an understatement of what we think we can get. But in any case, again, I want to be clear that while I think we can make a meaningful and significant contribution to this problem—to reducing this problem, we can't solve it. We don't have tools that are strong enough to solve the unemployment problem.

MIKE MCKEE. You've made an eloquent explanation over the past couple of weeks of the Fed's ability to lower interest rates. But what's missing for many economists is how the transmission mechanism is going to work. Most people think this will have a minimal effect on rates. Can you give us an idea of how much you think it might push rates down, and why moving rates down a few basis points might change demand, which seems to be the problem in the economy?

CHAIRMAN BERNANKE. Well, the ultimate effect is going to depend, of course, on how much we end up doing, and that, in turn, is going to depend on what the economy does.

This is a conditional program; we're going to be providing accommodation according to how the economy evolves. I think that's the virtue of putting it this way, is that if the economy is weaker, we'll provide more support; if the economy strengthens on its own or other headwinds die down, then it will require less support. So the amount of support we provide is going to depend on how the economy evolves. We do think that these policies can bring interest rates down—not just Treasury rates, but a whole range of rates, including mortgage rates and rates for corporate bonds and other types of important interest rates. It also affects stock prices. It affects other asset prices—home prices, for example. So looking at all the different channels of effect, we think it does have impact on the economy. It will have impact on the labor market, but, as again, the way I would describe it is a meaningful effect, a significant effect, but not a panacea, not a solution for the whole issue. We're just trying to get the economy moving in the right direction, to make sure that we don't stagnate at high levels of unemployment, that we're making progress towards more acceptable levels of unemployment.

ROBIN HARDING. Robin Harding from the *Financial Times*. Mr. Chairman, is this the limit of what the Fed could do? You refer in your statement to other policy tools. If the unemployment situation doesn't improve, then what other measures do you have available? Thank you.

CHAIRMAN BERNANKE. Well, there's a variety of possibilities, and we continue to look at all different options. But the two primary types of tools, as I've discussed, are balance sheet actions—and, of course, we can restructure those, change those in various ways; the other type of tool is communication tools. And we could—we continue to work on how best to communicate with the public and how best to assure the public that the Fed will remain accommodative long enough to ensure recovery. So, working with our communications tools, clarifying our response to economic conditions, might be one way in which we could further provide accommodation.

PEDRO DA COSTA. Pedro da Costa from Reuters. My question is—I want to go back to the transmission mechanism because, speaking to people on the sidelines of the Jackson Hole conference, that seemed to be the concern about the remarks that you made is that they could clearly see the effect on rates and they could see the effect on the stock market, but they couldn't see how that had helped the economy. So I think there's a fear that, over time, this has been a policy that's helping Wall Street but not doing that much for Main Street. So could you describe, in some detail, how does it really different—differ from trickle-down economics, where you just pump money into the banks and hope that they lend?

CHAIRMAN BERNANKE. Well we are—this is a Main Street policy, because what we're about here is trying to get jobs going. We are trying to create more employment, we are trying to meet our maximum employment mandate, so that's the objective. Our tools involve—I mean, the tools we have involve affecting financial asset prices, and that's—those are the tools of monetary policy. There are a number of different channels—mortgage rates, I mentioned other interest rates, corporate bond rates, but also the prices of various assets, like, for example, the prices of homes. To the extent that home prices begin to rise, consumers will feel wealthier, they'll feel more disposed to spend. If house prices are rising, people may be more willing to buy homes because they think that they'll, you know, make a better return on that purchase. So house prices is one vehicle. Stock prices—many people own stocks directly or indirectly. The issue here is whether or not improving asset prices generally will make people more willing to spend. One of the main concerns that firms have is there is not enough demand, there's not enough people coming and demanding their products. And if people feel that their financial situation is better because their 401(k) looks better or for whatever reason, their house is worth more, they are more willing to go out and spend, and that's going to provide the demand that firms need in order to be willing to hire and to invest.

JON HILSENRATH. Jon Hilsenrath from the *Wall Street Journal*. Mr. Chairman, the statement says—we've come back to this a couple of times— "If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of agency mortgage-backed securities, … additional asset purchases, and employ … other policy tools." Can you define and describe more specifically what "improve substantially" means? And what do you—what is the Committee referring to when it says "additional asset purchases" and "other … tools."

CHAIRMAN BERNANKE. Well, again, we're looking for ongoing sustained improvement in the labor market. There's not a specific number we have in mind. But what we've seen in the last six months isn't it. We're looking for something that involves unemployment coming down in a sustained way, not necessarily a rapid way, because I don't know if our tools are that strong, but we'd like to see an economy which is strong enough that it will support improving labor market conditions and unemployment that's declining gradually over time. That's essentially what we're looking for. In terms of the tools that we have, we have the mortgage-backed security purchases, which we can continue or expand or change in any—you know, in various ways. We could also purchase, of course, Treasuries; we've retained that capacity. And in terms of other policies, again, there are a number of possibilities, but the one I mentioned to Zach in particular is our communication policies, finding ways to better explain our rate policies that will engender more-accommodative financial conditions.

BINYAMIN APPELBAUM. Mr. Chairman, it seems pretty clear that the Fed's announcement today has created a good deal of confusion about how long you'll keep buying assets, judging from the questions in this room and outside of it. Why did you choose not to adopt a specific target? Did the Committee consider specific targets—there have been a number of proposals—and why did you choose not to do that?

CHAIRMAN BERNANKE. Well, we—the problem is that, for this purpose, that what we're looking for is a general improvement in labor market conditions. We want to see the unemployment rate come down, but that's not the only indicator, obviously, of labor market conditions. The unemployment rate came down last month because participation fell. That's not necessarily a sign of improvement. So we want to see more jobs. We want to see lower unemployment. We want to see a stronger economy that can cause the improvement to be sustained; it's not just a one-month or two-month phenomenon. We're not going to be looking for little wiggles in the numbers that are going to cause us to radically shift our policy. So, we, at least at this point, have decided to define it qualitatively. I hope I am giving you at least a little color in terms of what we'll be looking for. We'll be looking for, again, an economy which is quickening, that gives signs of continued improvement, that allows labor markets to be stronger, and that will be the type of qualitative criteria that we look at. We don't—again, we don't have a single number that captures that, but we anticipate that we'll have to do more, and we'll do enough to make sure that the economy gets on the right track.

CRAIG TORRES. Hi, Mr. Chairman. Someone told me that less than 1 percent of all mortgages originated in the past 18 months went to borrowers with impaired credit history. So when we talk about people and a Main Street policy, it seems like you're struggling, like many other central banks, and that's to get the low rates down to—the challenge is to get them to people who really need them, people who are paying high rates or companies with somewhat fragile balance sheets. So, given that's the case—I mean, you guys got involved in markets when they were dysfunctional in the crisis. What's your appetite for doing more-targeted credit programs if, post-election, you had a Treasury Secretary and a Congress that was willing to underwrite some of the credit risk?

CHAIRMAN BERNANKE. Well, now you're talking about congressional programs, and I don't, you know, I don't advocate specific programs. It's up to them to make those decisions. I think we're seeing modest improvement in mortgage markets. One thing that's helping is a stronger housing market. One reason that lenders have been very constrained is they are worried about further house price declines that will make the collateral worth less than the loan. As house prices have begun to rise, as the economy has gotten a little stronger, lending standards have eased just a bit. There's also been other changes which are useful. I note, for example, that the FHFA and the GSEs have recently changed their policy on putbacks so that banks will have more certainty about under what conditions a mortgage will be put back to them if it defaults. So I think there's number of things in train that will make the mortgage markets a little bit more open, and that is one factor, actually, that could make our policy more effective rather than less effective over time—if more people have access to mortgage credit, more people can take advantage of the low rates that we're providing.

GREG IP. Greg Ip of the *Economist*. Mr. Chairman, one of the innovations of your statement today is that you have for the first time explicitly predicated your monetary policy action on the achievement of explicit economic goals, in this case a substantial improvement in the labor market. Could you give us some explanation of how that conditioning will make your policy more effective than if you had simply done as you previously have: announced the policy and then conducted it? And a technical question: When "Operation Twist" ends, do you anticipate adjusting the size of your asset purchases in order to maintain the $85 billion monthly flow of long-term asset purchases?

CHAIRMAN BERNANKE. On the latter, when Operation Twist ends, we will be looking at the whole set of asset purchases in order to make decisions. We'll be looking at the state of the economy, as we described in the statement. In particular, what's the state of the labor market, what's the state of the outlook for economic growth? On conditioning, our policies have always been conditional in that we've always been clear that our asset purchases, for example, were reviewed periodically to see if they were still necessary, if they needed to be expanded. We did extend the maturity extension program, for example, when we thought that more support was needed for the economy, so our policies have always had a significant element of conditionality. But the idea here is to make that more explicit, more transparent to the public, make it more obvious that the Fed will do what's needed to provide the support for the economy. And we hope that what that will do is provide a bit more assurance, maybe a bit more confidence, that the Fed will be there to do what it can. Again, we're not promising, you know, a cure to all these ills. But what we can do is provide some support, and by assuring the public that we will be prepared to take action if the economy falters, we're hopeful that that will increase confidence and make people more willing to invest, hire, and spend.

PETER BARNES. Sir, just to follow up on—Peter Barnes with Fox Business—to follow up on Darren's questions, a question about getting back to full employment. It looks like there's a lot more work to do here. And so I wanted to ask you about your plans as Fed Chairman—your term expires in January of 2014. Governor Romney's comments notwithstanding, what are your plans? Do you plan to leave at that time? Would you consider an appointment to a third term at the Fed at all? And then, if I may, on election year politics, is there any—do you have any concern or was there any discussion within the Committee about whether or not your actions today might be perceived as helping President Obama, helping the economy, and thus helping President Obama get reelected and hurting Governor Romney's chances in the presidential contest? Thank you.

CHAIRMAN BERNANKE. Well, on the former, I'm—I have a lot to do. I am very focused on my work, and I don't have any decision or any information to give you on my personal plans. On the politics, we have tried very, very hard—and I think we've been successful—at the Federal Reserve to be nonpartisan and apolitical. We make our decisions based entirely on the state of the economy and the needs of the economy for policy accommodation. So we just don't take those factors into account, and we think that's the best way to maintain our independence and maintain the trust of the public.

DONNA BORAK. Chairman, Donna Borak with *American Banker.* My question pertains to Basel III. Community bankers, as you know, have been very worried about the impact that these rules will have on their banks, especially given the fact that there's been some industry consolidation, and some have even questioned whether or not the Fed has actually looked at the impact that the rules would have on smaller-sized institutions. So my question for you is, will there be relief for the smaller institutions, and can you provide any assurance that this will not be a one-size-fits-all regulation?

CHAIRMAN BERNANKE. Certainly. We are very interested in and very focused on community banks at the Fed. We believe they play a very important role in our economy and in our communities. We have a number of ways of communicating with community banks. It includes our advisory council made up of community bankers. It includes a special set of programs we have to reach out and talk to community bankers. So we are very interested in their views. I speak regularly to conventions and the like and talk to various groups. In terms of Basel III, of course, it's not one-size-fits-all. Many—and, indeed, many of the most difficult, complex regulations apply only to the largest and most complex institutions—for example, the capital surcharge that the largest banks have to hold, the complex rules applying to trading books and derivatives, the extra supervision under section 165, the orderly liquidation authority, the liquidity rules—the whole range of things that apply only to the largest, most complex, and internationally active banks. For the smaller banks, what our proposed rule does is try to strengthen their capital, and many small banks will already meet those capital requirements. Smalls banks tend to be very well capitalized. But, of course, it's important for small banks to be well capitalized as well as large banks. And there's a leverage requirement. But, again, most of the rules, most of the—particularly the most complex rules in Basel III will not apply to the smaller banks. Indeed, banks under $500 million have special exemptions from these rules. Having said all of that, I remind you that what we have now is a proposed rule, and we're receiving comment on that. We have a subcommittee of our supervision committee with two experienced—one community banker, one community bank supervisor on it from our Board who are particularly interested in making sure that the rules are not excessively onerous, and we will be looking at the comments and trying to make sure that we take into account the needs of community banks when we put out the final rule.

GREG ROBB. Thank you, Mr. Chairman. Yesterday former Fed Governor Larry Meyer at a conference in Washington said he'd never seen such a divided Fed. And we see it, we who cover the Fed see it in the speeches, in the run-up to today's decision. Some people said that it was dubious whether QE3 would work. Could you comment on former Governor Meyer's suggestions, and then—and sometimes don't you think, don't you wish that some of the Fed officials who don't support QE would keep their—keep their fears to themselves? Thank you.

CHAIRMAN BERNANKE. Well, as you know, we are living in a very complex time and dealing with a complex economic situation and a variety of novel and different issues, including new policies that haven't been used in the same way in the past, and so naturally we have a range of views, a range of opinions. I think on the whole that's probably a good thing. It's good to hear different points of view, and it's good to make sure that the points of view that are outside the Fed are reflected in the discussion around the table inside the Fed. So we have a very collaborative and collegial discussion process, that, again—that spans a range of views. We were, however, able to come to a pretty good consensus—as you know, the vote on this was 11 to 1—and that's a sign that the broad center of the Committee does support these actions and will continue to support them going forward.

GREG ROBB. Does the negative commentary hurt QE? Could it, if people in the market don't think it will work?

CHAIRMAN BERNANKE. There's going to be negative commentary whether it comes from Fed officials or not. Again, because there's a range of views—some people think it's more effective than others. I discussed some of the evidence in my speech in Jackson Hole, and I talked about the fact that, you know, different researchers have gotten different estimates of the impact. Virtually all of them find that there is some beneficial impact, but they disagree on how much. So, there's going to be disagreement. And again, I personally don't think that it's a panacea, I personally don't think it's going to solve the problem. But I do think it has enough force to help nudge the economy in the right direction.

MICHELLE FLEURY. You said that you can't cure all ills, that you haven't got strong enough tools to deal with the unemployment problem. I was curious to know what policy actions you'd like to see outside the Fed to try and address this. And, secondly, also on the "fiscal cliff," the expected spending cuts and tax increases, how concerned are you about that? And what ammunition do you have to deal with that, if that becomes a problem?

CHAIRMAN BERNANKE. Well there's, again, a range of areas where actions could be taken, and I can't really prescribe all those possible responses. I would focus, I think, on the fiscal side. We currently have the so-called fiscal cliff. If no action is taken, there's going to be a very substantial increase in taxes and cut in spending on January 1 of the coming year. The CBO has suggested that if that's allowed to take place, that it would cause unemployment to begin to rise, and it might throw the economy back into recession. So I think one very basic thing that could be done to help address the recovery—the weakness of the recovery and the need for more employment—would be to address the fiscal cliff while simultaneously addressing longer-term fiscal sustainability issues which remain, of course, very serious. So that's one area where there is a lot of potential benefit. If the fiscal cliff isn't addressed, as I've said, I don't think our tools are strong enough to offset the effects of a major fiscal shock, so we'd have to think about what to do in that contingency. So I think it's really important for the fiscal policymakers to, you know, work together and try to find a solution for that.

PATRICK WELTER. Mr. Chairman, my name is Patrick Welter with the German newspaper *Frankfurter Allgemeine Zeitung*. I have two questions, if I may. One is in the projections. In the economic and inflation projections, you foresee a low inflation rate below 2 percent to 2015—not you personally, but the FOMC. I am wondering, if you look at the growth rates, you have growth rates of about 3.4 percentage points in 2014 and 2015. How long do you think that it might work that you have such strong growth and no inflation pressure? And the second question, if I may, is, a lot of economists don't see too much effect out of the further round of QE3. Aren't you worried that, in promising that you will do whatever you can, even if it is tiny, small, that you give some kind of carte blanche to the fiscal policy and to the Congress not to do enough on their side of the policy action?

CHAIRMAN BERNANKE. Well, the—on inflation, we do anticipate at some point what's normal in a recovery, which is, given that the economy fell very quickly and there's a lot of unused capacity, there's a lot of slack in the economy, it would be normal that there would be a period where the economy would grow faster than trend in order to make up some of the slack that was created. So we don't anticipate the economy is going to be overheating anytime soon. And as long as we pay close attention to inflation expectations as well as the trajectory of the economy, we think inflation will remain close to our 2 percent target. On your second question, certainly, there is a range of views on how effective these tools are. I've spent a lot of time, as all of my colleagues have, looking at the evidence, and, of course, the staff here have done a great deal of work on the question. And the bottom line for most of it, most of the research, is that while these tools are not so powerful that they can solve the problem, they are at least able to provide meaningful support to the economy. Our job is to use the tools we have to meet our mandate, which is maximum employment and price stability. So if we have tools that we think can provide some assistance and we're not meeting our mandate, then I think that our obligation is to do what we can. Of course, we would like to see policies across the board to help address these issues. But, you know, that's not our province; we are the monetary policy authorities, and our job is to use monetary policy as effectively as we can.

STEVE BECKNER. Steve Beckner of MNI, Mr. Chairman. There have been concerns raised, questions raised by people like Columbia Professor Michael Woodford and others about the credibility of your forward guidance on the path, the future path of the federal funds rate—the idea being that, to the extent it's conditional, it's not really convincing and doesn't provide the kind of confidence that you referred to. Now, on this latest statement, you've removed some of that conditionality. I am particularly struck by the statement that "the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after the economic recovery strengthens." I assume that was done to make your forward guidance more credible, and yet the question remains whether, you know, as the economy picks up steam, whether the FOMC will really follow through and keep rates low or whether you will do as the Fed has always done and begin to raise the funds rate.

CHAIRMAN BERNANKE. Well, that's an important question. Michael Woodford—who, by the way, is my former colleague and coauthor and friend, so I know him quite well, and I know his works quite well—I think, actually, the thrust of his research is that forward guidance—communication about future policy—is, in fact, the most powerful tool that central banks have when the interest rate is close to zero. And he advocates policies like nominal GDP targeting, for example, that would essentially require credibility lasting many years, the implication being that the Fed would target the nominal level of GDP and promise to do that for many years in the future even if inflation, you know, rose as part of that policy. So his own perspective is that credibility is the key tool that central banks have in order to get traction at the zero lower bound. Whether we have the credibility to persuade markets that we'll follow through is an empirical question. And the evidence, which I also, again, discussed in my remarks recently, is that when we've announced extended guidance, that financial markets have responded to that, that private-sector forecasters have changed their estimates of what unemployment and inflation will be when the Fed begins to remove accommodation. So the empirical evidence is that our announcements do have considerable credibility. And I think there's a good reason for that, which is that we have talked a lot both publicly and privately about the rationale for maintaining rates low even as the economy strengthens, and I think the basic ideas are broadly espoused within the Committee. And so there is a consensus that even as the personnel change and so on going forward, that this is the appropriate approach, and that by following through, we will have created a reserve of credibility that we can use in any subsequent episodes that occur.

DON LEE. Don Lee with the L.A. *Times*. With mortgage rates already at historical lows, how much further do you think the actions, your actions, will drive down the rates, and related to that, I'm assuming that you expect the purchases of mortgage-backed securities to have a meaningful effect on refinancings and housing activity. What would that look like? What would that meaningful effect mean?

CHAIRMAN BERNANKE. Well, again, as I mentioned before, it's true that our mortgage-backed securities purchases ought to drive down mortgage rates, and put downward pressure on mortgage rates, and create more demand for homes and more refinancing. But it will depend, again, ultimately on several things. One will be on the amount that we do, the amount of purchases that we do, and that in turn is going to be a function of how the economy evolves. If the economy is weaker, we'll do more, and in those cases, probably rates would be pretty low at any case because the economy is looking weak. If the economy is stronger, strong enough to create improving labor market conditions, we won't have to do as much. And so, the amount that we do depends on how the economy evolves. So, since I don't know exactly how much we'll end up doing, it's a little bit hard to give you an exact estimate. So I think that's, you know, in terms of how many homes and those kinds of questions, again, I think that the markets are looking—are looking a little better. I think that house prices are beginning to rise in some markets, which will encourage people to look at homes, will encourage lenders to make more mortgage loans. So I'm hopeful that we'll see continued progress in the housing market; that—that has been one of the missing pistons in the engine here. Housing is usually a big part of the recovery process. We haven't had that nearly to the usual extent, and to the extent that we can support housing, I think that would be a very useful outcome.

DON LEE. There doesn't seem to be that many people who could qualify for refinancings. Can we expect a meaningful effect on an increase in refinancing activity?

CHAIRMAN BERNANKE. Well, I think there'll be some, but you get more benefit when people buy homes. And sales of homes are down still, but they have been rising steadily, and we're trying to provide more support for people who want to go out and buy homes, construct homes, and also those who want to refinance. But it's the purchases of new homes that generate the construction activity, the furnishing, all those things that help the economy grow.

SCOTT SPOERRY. Scott Spoerry with CNN and CNNMoney. Earlier this year at one of your news conferences in this room, you said that you were already hearing anecdotal information from some of your colleagues at the regional Fed Banks about firms, companies making decisions on hiring next year because they were afraid of the fiscal cliff or whatever the federal government was going to do in terms of—in terms of cutbacks. It's been a few months since you made that statement, and I'm sure your staff are working hard on it, but how much of a headwind to the economy is the fear of the federal government just sort of cutting way back, falling across the fiscal cliff or even—even if they take a few steps back from the cliff, it's still there. How much is that fear contributing to lack of—lack of growth or adequate GDP growth in the economy?

CHAIRMAN BERNANKE. Well I—you know, it's pretty hard to give you a number, but I can certainly confirm that as the Reserve Bank presidents and Governors made their reports today and yesterday around the table, there was considerable discussion of uncertainty, including policy uncertainty, fiscal policy uncertainty, and the implications of that for hiring and investment decisions. A lot of—a lot of firms are waiting to see whether that problem will be resolved. And if so, how? And I think it is a concern. It is something that is affecting behavior now. But again, I don't know—I don't have a number, I don't know how big that effect is, but, certainly, the sooner that can be resolved, the sooner it can be clarified, it will be beneficial not just because we avoid the cliff itself, but because we clarify for firms, for employers and investors, how that's going to be resolved. So, I think it's an issue that is of some consequence, yes.

CATHERINE HOLLANDER. Hi, Mr. Chairman. Catherine Hollander, *National Journal*. How much was the fiscal cliff a decision, or a factor in your decision, to do an open-ended QE instead of a fixed sum? Or fiscal uncertainty more generally?

CHAIRMAN BERNANKE. Well, we take the economy as we find it. There are a lot of headwinds right now that are affecting the economy. There's fiscal headwinds. There's international factors, including the situation in Europe. There's factors arising from still-impaired credit markets, and so on. So we looked at that—looked at the economy from the perspective of, you know, how quickly it's been growing over the last six months to a year. And, as I talked about in a speech in March, in order for employment gains to be sustained, for unemployment to fall, the economy needs to grow at or above trend levels. And lately it's not really been at trend. So we've been responding to that problem and trying to take steps that will assure somewhat stronger growth and, we hope, will help bring unemployment down over time. Now, again, the fiscal cliff, the uncertainty about the fiscal cliff, is one of the factors, one of the headwinds, but I'm sure there are many others, and we don't try to differentiate among them in any sense. If the fiscal cliff does occur, I suspect it won't, and I hope it won't, but if it does, and we get the kind of impact the Congressional Budget Office is talking about, as I've said, I don't think the Federal Reserve has the tools to offset that, and we would have to rethink at that point. But we've taken the steps we've taken now because we'd like to see the economy gather more momentum, and the more momentum it has, the better placed we are to deal with any shocks that might come down the road.

MARCY GORDON. Marcy Gordon with the Associated Press. One of the aspects we've seen in recent reports on unemployment is the shrinking labor force. Is that something that's of specific concern to you, and what does it tell us about the labor market and the economy?

CHAIRMAN BERNANKE. Well, you are absolutely right. And as I mentioned earlier, the unemployment decline last month was more than 100 percent accounted for by declines in participation. Some decline in participation is anticipated, is as expected. We're an aging society. We have more people retiring. Female participation has flattened out; it hasn't continued to climb as it did for several decades. We're seeing less participation among younger people, fewer college students taking part-time jobs and the like. So part of this decline in participation was something that we anticipated quite a long time ago, but part of it is cyclical. Part of it reflects the fact that some people—because they have essentially given up or at least are very discouraged—have decided to leave the labor force. And the anticipation is that if the economy really were to strengthen, and labor markets were to strengthen, at least some of those people would come back into the labor force. They might even temporarily raise the unemployment rate because they're now looking again. So the participation rate over and above—the decline in participation rate over and above the downward trend is just one of the other indicators of a generally weak labor market. And it's why I said earlier that we do want to look at a range of indicators, not just the unemployment rate, although that's a very important indicator, not just payrolls, although that also is a leading indicator, but participation, hours, part-time work, and a variety of other measures which suggest that our labor market is still in quite weak condition.

Thank you.

Background on FOMC Meeting Minutes

Deborah J. Danker and Matthew M. Luecke, of the Board's Division of Monetary Affairs, prepared this article.

On December 14, 2004, the Federal Open Market Committee (FOMC) decided to move up the publication of its minutes to three weeks after the end of each meeting. That action has cut in half the average time between the meeting and publication of the minutes. It has also apparently heightened public attention to the FOMC minutes. To give additional context to the Committee's decision, this article outlines previous changes to the release schedule for the minutes and provides a brief overview of the content of the minutes and the way they are now produced.

From the inception of the FOMC, the Federal Reserve has had an obligation to maintain records of the Committee's policymaking actions and to publish those records in its annual report to the Congress.[1] Accordingly, the Federal Reserve initially published a summary of FOMC proceedings once a year. Over time, however, as views about public access to information changed and as financial markets matured, broadened, and deepened, the FOMC provided more information more promptly, going well beyond the basic information required by the Federal Reserve Act.

This article focuses on the minutes and their production, but the minutes are by no means the sole source of public information about FOMC policymaking. For example, the Committee releases a statement on the same day that policy decisions are made, the Chairman provides semiannual testimony to the Congress, and the Board submits semiannual Monetary Policy Reports, which include a summary of the economic projections of the Board members and Reserve Bank presidents. In addition, the Chairman testifies on the economy and other topics on several occasions during the year; Committee members regularly give public speeches; and a wide range of documents, including FOMC meeting transcripts, is made available after a five-year lag.

HISTORY

The Federal Open Market Committee was created in its modern form by the Banking Act of 1935, and for much of its history, the publicly available reports from its meetings were the "Records of Policy Actions"—also known as the "Policy Record." (See timeline chart of past and present nomenclature.) For its own use, the Committee initially maintained extensive "minutes," which were detailed records of attendance, discussions, and decisions at each meeting. These minutes remained confidential, and the Records of Policy Actions, which were published once a year, were the official statement of FOMC policymaking for decades.[2] At first, the Records of Policy Actions included only a paragraph or two of background or reasoning behind each action. However, these records grew over time and had reached an average of about five pages per meeting by the mid-1960s, when the Committee reviewed its information-disclosure practices.

1967—Release of Record of Policy Actions after Ninety Days

In discussions undertaken in light of the pending effective date of the Freedom of Information Act, the Committee agreed that information about monetary policy decisions should be made available to the public on a timely basis but that caution was needed so that the information released would not impair the Committee's ability to formulate and implement policy. The consensus that emerged was that the time lag on the release of information should be shortened.

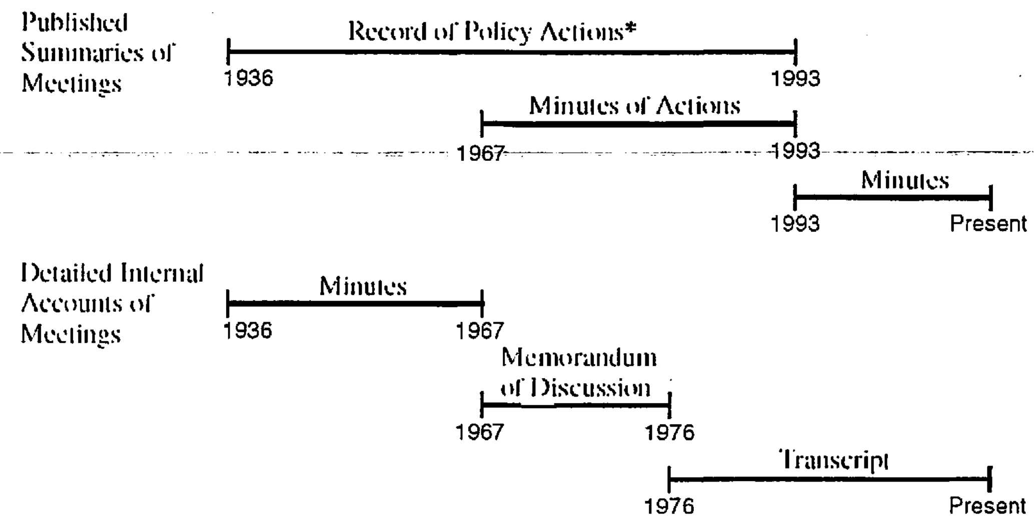
Accordingly, in June 1967, the Committee announced that it would release the Record of Policy Actions about ninety days after each meeting and

NOTE. The authors are grateful for helpful comments received, especially from their former colleagues Normand Bernard and David Lindsey.

1. Section 10, paragraph 10 of the Federal Reserve Act states: "The Board of Governors of the Federal Reserve System shall keep a complete record of the action taken by the Board and by the Federal Open Market Committee upon all questions of policy relating to open-market operations and shall record therein the votes taken in connection with the determination of open-market policies and the reasons underlying the action of the Board and the Committee in each instance. The Board shall . . . include in its annual report to the Congress . . . a copy of the records required to be kept under the provisions of this paragraph."

2. In 1964, the FOMC made the minutes for the years 1936–60 available to the public through the National Archives.

Reports from FOMC Meetings: Past and Present Nomenclature



*Also referred to as "Policy Record."

would also publish it in the *Federal Reserve Bulletin*. The Committee believed that a ninety-day lag would be a relatively safe starting point and that, as experience was gained, it might be possible to reduce the lag between policy action and publication.

The Committee also began to make available on the same schedule a new document—a companion piece to the Record of Policy Actions—that was called "Minutes of Actions." This document included summaries of all actions (both policy actions and nonpolicy actions, such as procedural or organizational votes) as well as a list of attendees. The document did not state the reasoning behind the actions or give any indication of the discussion at the meeting; that information was covered in the Record of Policy Actions. The material previously included in the FOMC's internal minutes was now in effect split into two documents—the Minutes of Actions and the "Memorandum of Discussion," a detailed account of the discussion at each meeting. Subsequently, the Committee began releasing its internal minutes, and later the Memorandum of Discussion, to the public with a lag of about five years.[3]

3. In 1967, the Committee sent the internal minutes for 1961 to the National Archives. In 1976, it transmitted those for 1962–65 and decided on a regular schedule of releasing them after about five years.

1975—Release of Record of Policy Actions after Forty-Five Days

In the years after the passage of the Freedom of Information Act, it became clear that there was a substantial public appetite for further and more-timely information related to the Committee's meetings. Committee discussions about the schedule and content of existing information releases resulted in a decision to cut the lag on the release of the Record of Policy Actions from ninety days to forty-five days. The March 1975 announcement about shortening the release lag time noted that "in the light of experience, the Committee decided that a delay as long as 90 days was no longer necessary to avoid an unacceptable degree of risk that speculators would be able to take unfair advantage of the information or that market reactions would impair the effectiveness of the Committee's functions."

1976—Earlier Release of Lengthened Record of Policy Actions

In May 1976, the Committee announced that an expanded version of the Record of Policy Actions for each meeting would be released a few days after the subsequent meeting.[4] Because the Committee was meeting monthly at that point, the lag shortened to an average of just over thirty days.[5] The expanded document, which was approximately doubled in length, included a fuller discussion of economic and financial developments and more information on members' views on current and longer-run policy issues. At the same time, the Committee decided that continued production of the Memorandum of Discussion was no longer merited.

1993—Combination of the Record of Policy Actions and Minutes of Actions

Congressional interest in FOMC information disclosure picked up substantially in the early 1990s. To dispel some confusion that arose in the midst of discussions with the Congress about information release and to simplify its procedures, the Committee decided to combine the content of the Record of Policy Actions and that of the Minutes of Action into a single document called the "Minutes of the FOMC Meeting." Also, the Committee agreed to construct lightly edited transcripts of its previous meetings from unedited transcripts dating back to 1976, which would be released to the public with a lag of about five years.[6] In early 1995, the Committee decided to follow the same publication practice for future transcripts as well.

2004—Release of the Minutes after Three Weeks

In December 2004, the Committee announced that it would expedite the release of the minutes of its meetings to three weeks after each meeting, a reduction of between two and five weeks in the lag (the previous release schedule had depended on the timing of the subsequent meeting, which could vary by several weeks). In support of this decision, participants at that FOMC meeting noted that the minutes contained a more complete and more nuanced explanation of the reasons for the Committee's decisions and views of the risks to the outlook than was possible to include in the post-meeting announcement. They also noted that the earlier release would help markets interpret economic developments and predict the course of interest rates and that the minutes would provide a more up-to-date context for public remarks by individual policymakers. Some concern was expressed, however, that the financial markets could misinterpret the minutes and that the specter of early release could either impair the discussion at FOMC meetings or lead to less-comprehensive, and therefore less-useful, minutes over time. On balance, the Committee viewed the pluses as outweighing the minuses and decided unanimously to expedite the release of the minutes.

CONTENT

The FOMC expressed its views on the content of the minutes years ago when it said that the document "contains a full and accurate report of all matters of policy discussed and views presented, clearly sets forth all policy actions taken by the FOMC and the reasons therefor, and includes the votes by individual members on each policy action."[7] In practice, this means that the minutes cover all policy-related topics that receive a significant amount of attention at the meeting and they record the policy decisions and the reasoning supporting those decisions. All policy votes are recorded. If there is a dissent, the reason for the dissent as expressed at the meeting is included in the minutes. All attendees at the meeting are named and identified by title and affiliation. Because the objective of the minutes is to provide a fair, accurate, and complete record of the FOMC meeting, only information that was available at the time of the meeting is reflected in the content of the minutes, and only opinions that were expressed at the meeting are included. Subsequent information—such as a market reaction to the post-meeting statement, new economic data, or any notation votes or unscheduled FOMC meetings that might occur before the publication date of the minutes—would not be included in the minutes for that meeting; it would be reflected in the minutes of the next regularly scheduled meeting.

4. In practice, this decision meant that the minutes were released on the Friday after the next meeting. They continued to be released on that schedule until early 1997, when the release was shifted to the Thursday after the next meeting.

5. In 1981, when the FOMC cut its meeting schedule back to eight regularly scheduled meetings each year, the lag on releasing the policy record lengthened concomitantly: "A few days after the subsequent meeting" came to mean a publication date that was once again about forty-five days, on average, after the meeting.

6. To date, transcripts for 1979–99 have been released; 1976–78 are pending.

7. From the March 10, 1977, FOMC—Statements of Policy, which is available in the *Federal Reserve Regulatory Service*, vol. 4, loc. no. 8–830. That statement referred specifically to the Record of Policy Actions, which at the time was the functional equivalent of the current minutes.

Conventions of Language

The minutes try to convey clearly the content of the meeting through commonly used language. At times, the minutes use specific terms in the interest of precision. For example, the minutes distinguish among the terms "members," "meeting participants," and "staff." "Members" refers only to the twelve members of the FOMC—namely, the individuals eligible to vote at that meeting—whereas "meeting participants" includes both the members and the seven nonvoting Reserve Bank presidents (or those attending in their stead). The views of all meeting participants are included in the discussion of current economic conditions and the outlook. When it comes to the description of the policy discussion (usually the final few paragraphs of the minutes), however, the views of the twelve members are the focus. This focus reflects the intention of this section, which is to provide the specific reasons underlying the policy action decided upon by those voting at the meeting. Comments by other meeting participants may be mentioned by way of background in this section when it is felt that they provide important context for the policy discussion, but such comments would not be attributed to members.

To give an indication of how widely expressed a particular view is at a meeting, the minutes use common quantitative wording: "all," "most," "many," "several," "few," or "one," in descending order. Often, other similar words are used for stylistic purposes, and care should be used by readers to avoid over-interpreting specific wording. Moreover, tracking expressions of support for particular viewpoints in the give-and-take of a meeting tends to be an imprecise science. For example, a meeting participant speaking relatively late in a meeting may choose not to repeat views expressed earlier by others, or speakers may alter or amend their views in the course of the meeting. Therefore, these quantitative words should be read as indicative rather than definitive.

Document Structure

The minutes follow a structure that is fairly consistent from one meeting to the next. The initial section includes a list of attendees and any noteworthy organizational or procedural items. For the FOMC's annual organizational meeting, this initial section is appreciably longer because it also includes the election of Committee officers and the approval of various Committee documents.

The second section of the minutes follows a more-or-less standard format in presenting an overview of the economic and financial information provided to the Committee. This section ends with a summary of the staff forecast at the time of the meeting. In the case of the two-day meetings, during which the Committee discusses a special topic, the opening paragraphs of this section typically summarize the staff presentation and the Committee discussion of the special topic.

The third section covers meeting participants' perspectives on current economic developments and the outlook. The structure of this section is less standard because it depends upon the focus of the discussion. Nevertheless, the section typically includes paragraphs on such topics as business investment, consumer spending, the labor market, the external sector, and inflation. For the two-day meetings, the third section tends to be longer, in part because the minutes cover participants' projections for the economy.

The fourth section of the minutes focuses directly on the policy decision. It includes a few paragraphs covering members' views on policy and any discussion of the post-meeting statement. It also records the vote, including the language that the Committee voted on and the vote of each member by name. The minutes then conclude with confirmation of the date for the FOMC's next scheduled meeting.

A record of any notation votes that occurred during the period between regularly scheduled meetings would be included at the end of the minutes of the later meeting, as would the minutes of any unscheduled FOMC meetings, such as conference calls, that occurred during that period.

PROCESS

The minutes of each FOMC meeting are now prepared on an accelerated timetable in order for the document to be approved by the Committee and published on time, twenty-one days after the end of the meeting. An internal experiment covering most of the 2004 FOMC meetings preceded the decision to expedite the release, and that experiment was an essential element in providing the Committee with the necessary confidence that the shortened schedule could be met reliably.

Staff Draft

The minutes are drafted by staff members of the Board of Governors who attend the FOMC meeting. But the process of producing the minutes begins even before the meeting, as the standard staff summaries of the economic and financial situation (for example, the Greenbook and the Bluebook) prepared for each meeting become available a few days ahead of the meeting. A Board staff member uses those summaries, along with the staff presentations prepared for the FOMC meeting and other input, to draft the section of the minutes that reviews the information provided to the Committee. Shortly after the meeting, a draft of this section is completed, and several senior staff members review it for accuracy and pass it on to be incorporated with the other sections.

The writing of the third and fourth sections of the minutes, which cover the discussion of the economic outlook and the policy decision, begins as soon as the meeting ends. Several senior staff members gather and discuss major themes from the meeting and the way they will be covered in the minutes. The author of these sections, an officer from the Board's Division of Monetary Affairs serving on a rotating basis, begins a draft based initially on notes taken at the meeting. By the day after the meeting, however, a rough transcript of the meeting has been prepared, and the author typically relies on the transcript to complete the draft. By the end of the week of the meeting, a draft that includes all sections of the minutes is circulated among the officers in the Division of Monetary Affairs for review.

Policymaker Review

A series of several rounds of policymaker review of the draft minutes begins during the week after the meeting. After the minutes have been reviewed by the Chairman, the Secretary of the FOMC sends the draft to the meeting participants for comments late in the week after the FOMC meeting (typically on Thursday of that week, or nine days after a Tuesday meeting). Early in the subsequent week, the Secretary sends out a revised draft that incorporates input received from meeting participants. By the end of the second week after the meeting, a final version is produced and provided to the Committee for approval by a notation vote. The notation voting period lasts about four calendar days and closes at noon on the day before publication. After the processes of preparation and coordination for the release of the minutes are completed, the approved minutes are published at 2:00 p.m., twenty-one days after the policy decision was made.

This shortened schedule for release has required the Federal Reserve to devote additional resources to produce the minutes. A wider circle of drafters is engaged to ensure that the deadline is met, and logistics are closely coordinated to ensure that policymakers are available for timely review and approval of the minutes. The Committee believed that the costs and risks associated with the new schedule were outweighed by the benefits of additional policy transparency and openness. As such, the earlier release of the minutes was viewed as consistent with the evolution of the FOMC's communication strategy over the years. □

Embargoed for release at 2:00 p.m., EDT, September 13, 2012

Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents, September 2012

Advance release of table 1 of the Summary of Economic Projections to be released with the FOMC minutes

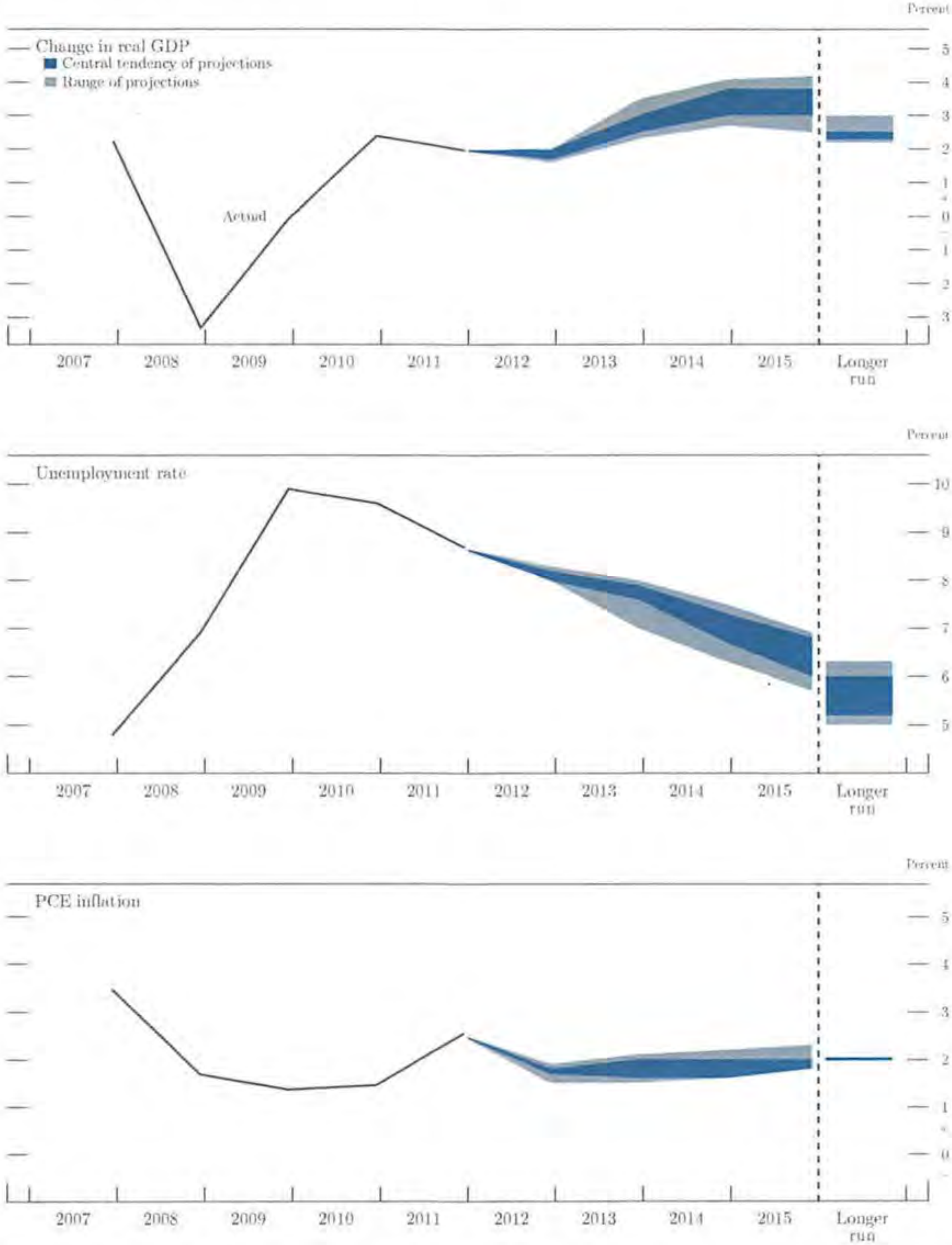
Percent

Variable	Central tendency[1]					Range[2]				
	2012	2013	2014	2015	Longer run	2012	2013	2014	2015	Longer run
Change in real GDP	1.7 to 2.0	2.5 to 3.0	3.0 to 3.8	3.0 to 3.8	2.3 to 2.5	1.6 to 2.0	2.3 to 3.5	2.7 to 4.1	2.5 to 4.2	2.2 to 3.0
June projection	1.9 to 2.4	2.2 to 2.8	3.0 to 3.5	n.a.	2.3 to 2.5	1.6 to 2.5	2.2 to 3.5	2.8 to 4.0	n.a.	2.2 to 3.0
Unemployment rate	8.0 to 8.2	7.6 to 7.9	6.7 to 7.3	6.0 to 6.8	5.2 to 6.0	8.0 to 8.3	7.0 to 8.0	6.3 to 7.5	5.7 to 6.9	5.0 to 6.3
June projection	8.0 to 8.2	7.5 to 8.0	7.0 to 7.7	n.a.	5.2 to 6.0	7.8 to 8.4	7.0 to 8.1	6.3 to 7.7	n.a.	4.9 to 6.3
PCE inflation	1.7 to 1.8	1.6 to 2.0	1.6 to 2.0	1.8 to 2.0	2.0	1.5 to 1.9	1.5 to 2.1	1.6 to 2.2	1.8 to 2.3	2.0
June projection	1.2 to 1.7	1.5 to 2.0	1.5 to 2.0	n.a.	2.0	1.2 to 2.0	1.5 to 2.1	1.5 to 2.2	n.a.	2.0
Core PCE inflation[3]	1.7 to 1.9	1.7 to 2.0	1.8 to 2.0	1.9 to 2.0		1.6 to 2.0	1.6 to 2.0	1.6 to 2.2	1.8 to 2.3	
June projection	1.7 to 2.0	1.6 to 2.0	1.6 to 2.0	n.a.		1.7 to 2.0	1.4 to 2.1	1.5 to 2.2	n.a.	

NOTE: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The June projections were made in conjunction with the meeting of the Federal Open Market Committee on June 19–20, 2012.

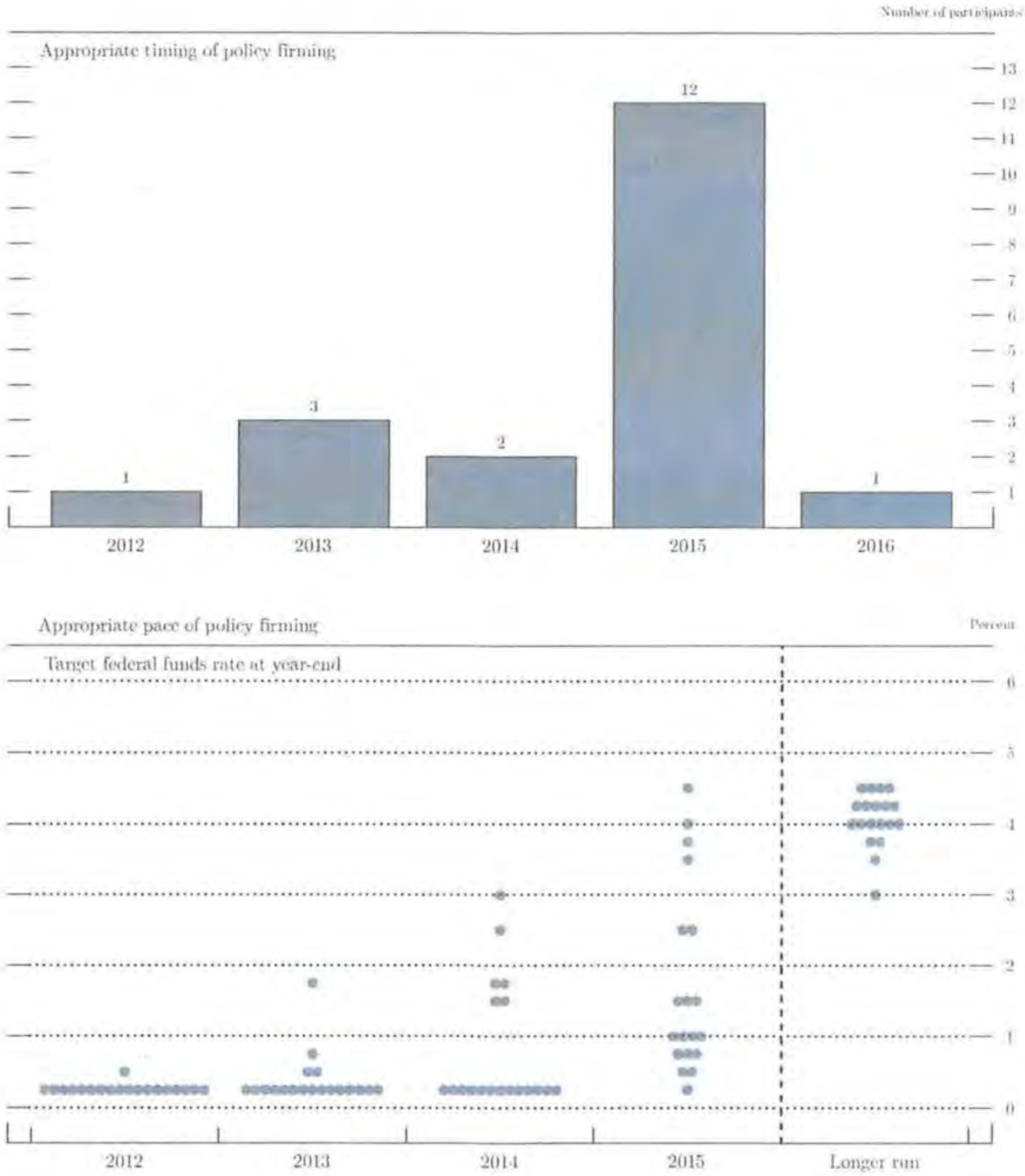
1. The central tendency excludes the three highest and three lowest projections for each variable in each year.
2. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.
3. Longer-run projections for core PCE inflation are not collected.

Figure 1. Central tendencies and ranges of economic projections, 2012–15 and over the longer run



NOTE: Definitions of variables are in the general note to the projections table. The data for the actual values of the variables are annual.

Figure 2. Overview of FOMC participants' assessments of appropriate monetary policy, September 2012



NOTE: In the upper panel, the height of each bar denotes the number of FOMC participants who judge that, under appropriate monetary policy, the first increase in the target federal funds rate from its current range of 0 to 1/4 percent will occur in the specified calendar year. In June 2012, the numbers of FOMC participants who judged that the first increase in the target federal funds rate would occur in 2012, 2013, 2014, and 2015 were, respectively, 3, 3, 7, and 6. In the lower panel, each shaded circle indicates the value (rounded to the nearest 1/4 percentage point) of an individual participant's judgment of the appropriate level of the target federal funds rate at the end of the specified calendar year or over the longer run.

Explanation of Economic Projections Charts

The charts show actual values and projections for three economic variables, based on FOMC participants' individual assessments of appropriate monetary policy:

- Change in Real Gross Domestic Product (GDP)—as measured from the fourth quarter of the previous year to the fourth quarter of the year indicated, with values plotted at the end of each year.
- Unemployment Rate—the average civilian unemployment rate in the fourth quarter of each year, with values plotted at the end of each year.
- PCE Inflation—as measured by the change in the personal consumption expenditures (PCE) price index from the fourth quarter of the previous year to the fourth quarter of the year indicated, with values plotted at the end of each year.

Information for these variables is shown for each year from 2007 to 2015, and for the longer run.

The solid line, labeled "Actual," shows the historical values for each variable.

The lightly shaded areas represent the ranges of the projections of policymakers. The bottom of the range for each variable is the lowest of all of the projections for that year or period. Likewise, the top of the range is the highest of all of the projections for that year or period.

The dark shaded areas represent the central tendency, which is a narrower version of the range that excludes the three highest and three lowest projections for each variable in each year or period.

The longer-run projections, which are shown on the far right side of the charts, are the rates of growth, unemployment, and inflation to which a policymaker expects the economy to converge over time—maybe in five or six years—in the absence of further shocks and under appropriate monetary policy. Because appropriate monetary policy, by definition, is aimed at achieving the Federal Reserve's dual mandate of maximum employment and price stability in the longer run, policymakers' longer-run projections for economic growth and unemployment may be interpreted, respectively, as estimates of the economy's normal or trend rate of growth and its normal unemployment rate over the longer run. The longer-run projection shown for inflation is the rate of inflation judged to be most consistent with the Federal Reserve's dual mandate.

Explanation of Policy Path Charts

These charts are based on policymakers' assessments of the appropriate path for the FOMC's target federal funds rate. The target funds rate is measured as the level of the target rate at the end of the calendar year or in the longer run. Appropriate monetary policy, by definition, is the future path of policy that each participant deems most likely to foster outcomes for economic activity and inflation that best satisfy his or her interpretation of the Federal Reserve's dual objectives of maximum employment and stable prices.

- In the upper panel, the shaded bars represent the number of FOMC participants who judge that the initial increase in the target federal funds rate (from its current range of 0 to ¼ percent) would appropriately occur in the specified calendar year.
- In the lower panel, the dots represent individual policymakers' assessments of the appropriate federal funds rate target at the end of each of the next several years and in the longer run. Each dot in that chart represents one policymaker's projection. Please note that for purposes of this chart the responses are rounded to the nearest ¼ percentage point, with the exception that all values below 37.5 basis points are rounded to ¼ percent.

These assessments of the timing of the initial increase of the target federal funds rate and the path of the target federal funds rate are the ones that policymakers view as compatible with their individual economic projections.

Meeting of the Federal Open Market Committee on September 12–13, 2012

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Wednesday, September 12, 2012, at 10:30 a.m. and continued on Thursday, September 13, 2012, at 8:30 a.m. Those present were the following:

Ben Bernanke, Chairman
William C. Dudley, Vice Chairman
Elizabeth Duke
Jeffrey M. Lacker
Dennis P. Lockhart
Sandra Pianalto
Jerome H. Powell
Sarah Bloom Raskin
Jeremy C. Stein
Daniel K. Tarullo
John C. Williams
Janet L. Yellen

James Bullard, Christine Cumming, Charles L. Evans, Esther L. George, and Eric Rosengren, Alternate Members of the Federal Open Market Committee

Richard W. Fisher, Narayana Kocherlakota, and Charles I. Plosser, Presidents of the Federal Reserve Banks of Dallas, Minneapolis, and Philadelphia, respectively

William B. English, Secretary and Economist
Deborah J. Danker, Deputy Secretary
Matthew M. Luecke, Assistant Secretary
David W. Skidmore, Assistant Secretary
Michelle A. Smith, Assistant Secretary
Scott G. Alvarez, General Counsel
Thomas C. Baxter, Deputy General Counsel
Steven B. Kamin, Economist
David W. Wilcox, Economist

David Altig, Thomas A. Connors, Michael P. Leahy, William Nelson, David Reifschneider, Glenn D. Rudebusch, William Wascher, and John A. Weinberg, Associate Economists

Simon Potter, Manager, System Open Market Account

Nellie Liang, Director, Office of Financial Stability Policy and Research, Board of Governors

Jon W. Faust, Special Adviser to the Board, Office of Board Members, Board of Governors

James A. Clouse, Deputy Director, Division of Monetary Affairs, Board of Governors; Maryann F. Hunter, Deputy Director, Division of Banking Supervision and Regulation, Board of Governors

Andreas Lehnert,[1] Deputy Director, Office of Financial Stability Policy and Research, Board of Governors

Linda Robertson, Assistant to the Board, Office of Board Members, Board of Governors

Seth B. Carpenter, Senior Associate Director, Division of Monetary Affairs, Board of Governors

Thomas Laubach, Senior Adviser, Division of Research and Statistics, Board of Governors; Ellen E. Meade and Joyce K. Zickler, Senior Advisers, Division of Monetary Affairs, Board of Governors

Brian J. Gross,[2] Special Assistant to the Board, Office of Board Members, Board of Governors

Eric M. Engen, Michael G. Palumbo, and Wayne Passmore, Associate Directors, Division of Research and Statistics, Board of Governors

Fabio M. Natalucci, Deputy Associate Director, Division of Monetary Affairs, Board of Governors

Edward Nelson, Section Chief, Division of Monetary Affairs, Board of Governors

Jeremy B. Rudd, Senior Economist, Division of Research and Statistics, Board of Governors

Kelly J. Dubbert, First Vice President, Federal Reserve Bank of Kansas City

Loretta J. Mester, Harvey Rosenblum, and Daniel G. Sullivan, Executive Vice Presidents, Federal Reserve Banks of Philadelphia, Dallas, and Chicago, respectively

Cletus C. Coughlin, Troy Davig, Mark E. Schweitzer, and Kei-Mu Yi, Senior Vice Presidents, Federal Reserve Banks of St. Louis, Kansas City, Cleveland, and Minneapolis, respectively

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[1] Attended Wednesday's session only.
[2] Attended Thursday's session only.

Lorie K. Logan, Jonathan P. McCarthy, Giovanni Olivei, and Nathaniel Wuerffel,[3] Vice Presidents, Federal Reserve Banks of New York, New York, Boston, and New York, respectively

Michelle Ezer,[4] Markets Officer, Federal Reserve Bank of New York

[3] Attended after the discussion on potential effects of a large-scale asset purchase program.
[4] Attended the discussion on potential effects of a large-scale asset purchase program.

Transcript of the Federal Open Market Committee Meeting on September 12–13, 2012

September 12 Session

CHAIRMAN BERNANKE. Good morning, everybody. Our first item is a staff report on the potential effects of large-scale asset purchases. Seth Carpenter will lead, but Vice Chairman Dudley would like to introduce the other presenter.

VICE CHAIRMAN DUDLEY. I would like to introduce Michelle Ezer from the Markets Group. Michelle and I actually had the interesting experience of writing a paper on the case for TIPS, right in the heart of the financial crisis, along with Jennifer Roush. I am not really sure how I managed to do that during that period, but, obviously, Jennifer and Michelle did most of the work. So she is a coauthor.

CHAIRMAN BERNANKE. Okay, thank you. Seth.

> MR. CARPENTER.[1] Thank you, Mr. Chairman. I will be referring to the material that's labeled "Potential Effects of a Large-Scale Asset Purchase Program." The Committee received three memos from the staff discussing various aspects of potential new large-scale asset purchase (LSAP) programs. I will discuss some considerations about how LSAP programs might be structured, and Michelle will discuss the balance sheet and income implications, along with the associated exit issues.
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> When considering the financial and economic effects of LSAPs, the staff analysis starts from a term structure model that embeds Treasury and MBS supply factors as determinants of the yield curve. These effects depend on market participants' beliefs about the entire trajectory of the SOMA portfolio's holdings of securities and the types of those securities. The FRB/US model assumes that declines in the 10-year Treasury yield pass through roughly one-for-one to other market rates. In addition, the lower Treasury rate reduces the discount factor in pricing equities, boosting stock prices. The foreign exchange value of the dollar falls as well. For LSAPs that include purchases of MBS, there is an additional assumed reduction in MBS and mortgage rates. Finally, the changes in these market variables are used to simulate the macroeconomic effects of these purchases using the FRB/US model.
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> Of course, the results depend critically on the models used and a wide set of assumptions, any of which could be challenged. First, in the staff models, the one-

[1] The materials used by Mr. Carpenter and Ms. Ezer are appended to this transcript (appendix 1).

for-one pass-through from the 10-year Treasury yield to other market rates could misstate the connection among these rates. For example, frictions like capacity restrictions for originations may prevent mortgage rates from fully adjusting, at least in the short run. Another source of uncertainty concerns the embedded effects on equity prices and the foreign exchange value of the dollar. Some event studies of previous unconventional balance sheet actions point to smaller effects than incorporated into staff analysis. Finally, the macroeconomic effects of the changes in asset prices are calculated using the FRB/US model, and other models would of course yield results that could be larger or smaller. In short, while the projections represent the staff's best assessment, the effects are clearly subject to considerable uncertainty.

Buying either longer-term Treasury securities or MBS should, in principle, put downward pressure on longer-term interest rates and, so, stimulate the economy. Although staff models suggest that purchases of MBS have a somewhat smaller effect than Treasury purchases on most longer-term interest rates, they have somewhat larger effects on mortgage rates, and when translated into estimated macroeconomic outcomes, the differences are fairly small, especially relative to the substantial uncertainty that surrounds such estimates. As a result, the staff memos did not provide clear guidance regarding the allocation of LSAPs between purchases of longer-term Treasury securities and purchases of MBS.

Looking at your first exhibit, to illustrate the macroeconomic effects that are implied by the staff models, we compare a projection in which the MEP, the Maturity Extension Program, is continued as planned—the solid, dark blue line—to a projection that assumes that the Committee instead ends the MEP and purchases $600 billion in Treasury securities and $400 billion in MBS by late next year. That's labeled option 1 as in the staff memo and it's the dotted blue line. In addition to lowering term premiums from LSAPs, this option is also assumed to put downward pressure on longer-term rates by pushing off the first increase in the federal funds rate by about six months. This LSAP program is projected to boost real GDP, lower the unemployment rate, and increase the inflation rate somewhat. As a consequence, more rapid progress toward both of the Committee's goals is made. The staff memorandum provided prior to your last meeting concluded that the purchases under such a program would not likely lead to a deterioration in market functioning. Michelle will later discuss some of the anticipated effects of the program on the Federal Reserve's balance sheet and income.

As I noted before, the estimated interest rate effect of an LSAP depends on the public's understanding of the FOMC's intended plans for purchases and exit. This consideration is particularly important for a flow-based or open-ended program that continues until a certain economic outcome is achieved. If the public understands the FOMC's stopping rule and has the same forecast for the economy as the Committee, and the economy evolves according to those projections, then our models would suggest that the flow-based LSAP is roughly equivalent to a stock-based LSAP of the same ultimate size. Of course, the economy would likely not proceed exactly in line with expectations, so under a flow-based LSAP, the anticipated total amount of asset purchases would likely be more state dependent and evolve as the economy evolves. Option 4 in the memo entitled “Options for an Additional LSAP Program”—presented here as the dashed red line—was intended to correspond roughly to such a program when the economy faces an adverse shock, and, as a result, purchases end up at a level that is higher than originally assumed. If the ultimate size of purchases in this case is $2 trillion, our models suggest that the net effect would be somewhat smaller than if, from the beginning, a $2 trillion LSAP had been implemented. However, a flow-based approach, if communicated clearly to the public, also could boost business and consumer confidence by reducing the odds of adverse tail outcomes and limiting the expected variance of economic outcomes. This confidence effect is not captured in the staff projections but could be important. Alternatively, if the stopping rule is not clear, and the public believed that the Committee might stop purchases somewhat earlier than the Committee actually intended, then the interest rate effect could be reduced relative to what our models suggest. However, as the public came to understand the Committee’s stopping rule, the expected size of the SOMA portfolio would revise up, and the interest rate effects would become larger. Michelle is now going to discuss the balance sheet projections and some of the issues related to the exit.

MS. EZER. Thanks, Seth. As Seth mentioned, I will be discussing the balance sheet and income projections described in the LSAP options memo and associated exit issues. I plan to focus on the same two LSAP options Seth discussed, though the memo presented several options. Turning to the top-left panel of exhibit 2, you can see the path of the portfolio under a baseline scenario in which MEP is completed and options 1 and 4 from the memo. Under the latter two options, the portfolio grows significantly as a result of the asset purchases. Consistent with the exit principles, we assume that 6 months prior to the first increase in the target federal funds rate, securities are allowed to mature without reinvestment, and 6 months after that first increase, sales of agency securities begin. These actions normalize the size of the portfolio through time. The addition of a new LSAP program extends the period of time between the start of asset sales and when the portfolio normalizes in size. For example, under option 1 it takes 41 months for the portfolio size to normalize after the initiation of MBS sales. This is 6 months longer compared with the MEP scenario.

In terms of Federal Reserve income, cumulative remittances to the Treasury over the projection period are lower than in a scenario with no additional LSAP. The lower remittances reflect higher interest expense and the larger capital losses from MBS sales. Looking at the top-right panel, until 2016, remittances are higher under the LSAP scenarios, because of the higher interest income from the larger portfolio and minimal additional interest expense. Thereafter, income is lower as a result of higher interest expense and larger capital losses. Under option 1, annual remittances are projected to bottom out near zero. By contrast, under option 4, remittances fall to zero for more than 5 years, and a deferred asset is created.

Of course, income and balance sheet projections can be sensitive to interest rate projections, and those projections are subject to uncertainty. One gauge of the interest rate risk in the portfolio is presented in the middle-left panel. Here, we present the projections of Federal Reserve remittances under an assumption that 1 year after federal funds liftoff, the federal funds rate and 10-year Treasury yield are 100 basis points above the baseline levels, and these higher levels persist for the remainder of the projection period. Under all of the LSAP options shown, the higher interest rate paths result in a period of no remittances to the Treasury and the creation of a deferred asset, as shown in the middle-right panel. Under option 4, remittances to the Treasury would cease for a considerable number of years, and a substantial deferred asset would be created.

The portfolio projections highlight two implications that an LSAP may have on the exit strategy. First, as shown in the bottom panel, the level of reserves would be higher at the time of the first increase in the federal funds rate. Second, in order to remain consistent with the existing exit principles, MBS sales would need to take place over a shorter period than 5 years—the period currently assumed in the projections. Absent a shorter MBS sales period, or other changes to the exit strategy, the size of the portfolio would not normalize within 2 to 3 years of the initiation of asset sales as anticipated by the exit strategy principles.

Starting with the first point, under option 1, reserve balances will be about $2.3 trillion at the time of the first increase in the federal funds rate—about $1 trillion larger than expected under the current policy, and also $1 trillion larger than assumed in June 2011. While increasing the IOER rate will raise short-term market rates by itself, reserve-draining tools can help to ensure a closer connection between the rates, and greater use of these tools may be needed, given the increased quantity of reserves. The memo entitled “The Effect of an Additional $1 Trillion LSAP on the Exit Strategy” discussed the status of each of the different draining tools. However, it is too early to provide specific details of a draining plan, because such a plan will depend on how markets evolve and the lessons learned once these tools are used in large scale.

Turning to the second point, the exit strategy principles themselves will not have to change as a result of a new LSAP. The expectation, however, that the size of the balance sheet would be normalized within 2 to 3 years of assets sales might not hold, depending on the size of the asset purchase program. Under option 1, by reducing the period of asset sales to 3½ years from the 5 years assumed in making the projections, the portfolio size would normalize within the assumed 2 to 3 years. The staff currently believes that the faster average pace of MBS sales would likely be manageable from a market-functioning perspective. That said, reducing the sales period would concentrate capital losses and result in Federal Reserve remittances declining to zero for a few years and create a deferred asset. In contrast, assumptions associated with the exit strategy principles would need to be altered under a $2 trillion LSAP like that under option 4. Agency sales alone would not be enough to normalize the size of the balance sheet within 2 to 3 years of the initiation of asset sales in this case. Moreover, sales of securities in the volume envisioned under option 4 over a three-year period may cause market disruptions.

> In any event, the Committee may wish to review its exit principles periodically, particularly if the Committee implemented a flow-based LSAP program, where the ultimate size of purchases would be unknown. Adjustments to the principles could include more heavily relying on asset sales as a tool to drain reserves, for example, by expanding it to include a moderate pace of Treasury security sales. Asset sales could also occur sooner. On balance, although the current exit strategy principles remain valid, additional analysis will be useful to determine whether alternate strategies might prove more helpful. Thank you, Mr. Chairman. Seth and I will be happy to answer any questions.

CHAIRMAN BERNANKE. Thank you very much. Of course, this is just a summary of a lot of work that the staff has been doing on all aspects of asset purchases. You have received a number of memos. Also, let me just mention that a little bit later this morning we will talk about the consensus forecast, which gives, in more detail, the staff projections of the effects of programs of different sizes on the economy. Let me now open the floor in case there are any questions for staff. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. I have two questions. I appreciate all of the work that went into this. It has been quite helpful to me in thinking about what is going on. Seth has made a good summary of the uncertainties and the range and assumptions that are needed to get the point estimates. I want to focus on two things.

One has to do with the assumptions about market segmentation and pass-through. In some sense, the FRB/US assumes—as you mentioned, Seth—that the pass-through from the reduction of Treasuries to corporate and mortgage-backed securities is one-for-one, which suggests, as you alluded to, that there is more segmentation across duration than there is across asset classes, in the case of the models. So one question I have would be, suppose that actually there was more segmentation across asset classes than across the term structure? In other words, if 5-year Treasuries were a better substitute for 10-year Treasuries than mortgage-backed securities or corporate bonds are for 10-year securities—which is the way it is kind of structured in the model—how would that change your analysis of these effects? That is one question.

And the second question is, you talked about the assumptions that are made and the uncertainties, and yet what we really got, at the end of the day, were some point estimates. So if I had to push you and I wanted to think about standard errors on these point estimates, how big do you think they are truly likely to be? Can we tell the difference, given the uncertainties among these different strategies? What is your assessment of that? So those are the two questions I have.

MR. CARPENTER. Okay. The first question, what if there were more segmentation across asset types than across maturities? I think pretty clearly what you would see in that case is that we might have an effect on Treasury yields if we are buying Treasuries, and that would tend to push down Treasury yields and widen the spread relative to other asset types. And to the extent that it's other interest rates that have a direct effect on economic activity, you would get a smaller effect. So I think, in principle, that's the way it would go.

The hard part there, I think, is there has clearly got to be a little bit of that going on. And the previous memo about market functioning that we sent around said we might get to the point where you are buying so much that you are dislocating the Treasury curve from the rest of market interest rates. I think we are very sensitive to that possibility, and I think the staff conclusion so far is that we haven't gotten to that point. And I think some of the other studies of LSAPs and how they work also point to pretty substantial spillovers to other asset classes—some Fed studies and some academic studies. So I think that's a reasonable hypothesis to maintain—I think it's something that we will want to worry a lot about, especially if the purchases were so large that they were to somehow disrupt market functioning. But my reading so far is that we are not there yet, for some of those reasons.

Another reason is—especially if you go back to some of the previous LSAPs—as the Desk has made clear what segment of the market we are buying, there have been some pretty clear adjustments in interest rates at different points along the curve. This suggests that the maintained hypothesis that we have, that the maturity matters a lot, is coming through in some of the event studies. When the Desk helped the market understand exactly what the maturity distribution of purchases was going to be, we saw some movements of yields at the long end relative to the belly of the curve that suggest that people see this sort of segmentation across maturities. In addition, I think some of the reaction to the MEP caused us to feel a little bit better about that assumption. The movement in the short rate relative to the long rate, once you control for expectations, seemed to conform reasonably well with some of the interest rate models that we have.

So I think the short answer is you would get a widening of spreads, and to the extent that Treasuries aren't the thing that matters for economic activity, you would get less of an effect. On the other hand, if you were to do mortgage-backed securities purchases, and the same hypothesis came up, then presumably you'd get a bigger effect just on the MBS rate, and presumably mortgages as well. And so the scenario you bring up might be an argument for having both asset classes—an argument that we didn't cover in the memo. If there is this segmentation across asset types, then buying both Treasuries and MBS may be a good thing to do, because then you will be able to affect both of those rates, instead of relying on the purchases of Treasuries to also push down mortgage and MBS yields along with it.

MR. PLOSSER. To interrupt just a second on that point, though, that begs the question about buying MBS—let's say, even if it might help the mortgage market. You don't have any evidence on whether that pass-through to corporate and other asset classes is either differential or the same or less than it would be with Treasuries? Are you assuming that other asset classes would follow the same amount then, in that kind of story?

MR. CARPENTER. Right. So I was trying to go into the counterfactual world where we are assuming this asset segmentation. And so there, there are lots of other hypotheses. Our models sort of—and they are empirical models, where we get the results based on actual data—suggest that the purchases of MBS do have the same general effect on longer-term interest rates by pulling out the longer-term assets and pushing things down. If we had a different model, we would have to confront all of those same questions that you asked, including, if there is a segmentation, what sort of pass-through would there be? But the models that we have, and the estimation that we have done, suggest that we are getting more or less the same effect on longer-term rates of MBS and Treasuries. I was just saying, in the alternate version of the world, where there is a segmentation, it might be an argument for buying two different types of assets that we didn't discuss in the memo.

Your second question about standard errors is a really good one, and it is hard. There are lots of different models that we have coming together, and I think Dave can probably speak really knowledgeably about the standard errors, especially from the FRB/US model. But there is layering, model upon model, to try to get these effects. I think we feel pretty good that we know for sure the sign of the first derivative, which is in what direction these things would happen. We presented a lot of results, though, for different-sized LSAPs in the memos, as Michelle pointed out—$750 billion, $1 trillion, $2 trillion. I think we can't say with any confidence that we know the difference between a $750 billion LSAP and a $1 trillion LSAP. We are pretty sure we know that the $1 trillion one does more, but those are so close to each other that I don't have much confidence in being able to differentiate. It's that sort of uncertainty I see, but I don't know if you want to talk about the macro effects.

MR. PLOSSER. I'm sorry. Just to push it just a little bit. So rather than the difference between $750 billion and $1 trillion, let's just take one of them, the $1 trillion one. And you estimate, what was it, 62 basis points on the unemployment rate after two years? Was that it? I can't remember the exact number. Whatever that number was, can you give me a standard error on that point estimate?

MR. REIFSCHNEIDER. I'm going to come to that directly. First, just to reiterate what Seth said, your logic is correct. To the extent that you think that the pass-through from buying Treasuries into corporate bond yields, stock market prices, the exchange rate, and things like that, are less than in the model simulations, you are going to get smaller results.

Second, I agree with Seth that the pass-through effects that we have in there—as we have been saying right from the start back in 2008, early 2009—are highly uncertain. And as time has gone on, I think the one source of uncertainty that has gone down is the concern about whether purchases would have any effect. At least we now think they have an effect. But having said that, there is still much uncertainty around these estimates.

In terms of actually coming up with a confidence interval, I can't do that, but I can say the following qualitative things that I think are helpful. First, take the model that Min Wei and Canlin Li developed that we are mainly using for pricing the effects on Treasuries and MBS. Now, that model kicks out a standard error. I don't know what it is, but it does not have tight error bands. There is considerable width to the confidence intervals. That said, we think the number is reasonable. But could the number be somewhat smaller or somewhat bigger? Yes. One point on why it could be bigger is, if you go back to the first LSAP, the event studies suggested the LSAP might have lowered Treasury yields by 100 basis points. In the analysis that Min and Canlin are doing, it's 50. So that's an example, where they are not necessarily taking the highest-side estimates.

There are other studies that suggest that we could be getting lower effects on financial markets than in the FRB/US analysis. On the other hand, FRB/US ignores some things, such as the potential pass-through to house prices; it has no effect in the simulations. And, there are confidence effects that Seth alluded to. Even if you knew what the financial effects would be, there would still be a substantial confidence interval for the economic effects. I don't have them off the top of my head, but we have generated confidence bands for FRB/US impulse responses over the years. They are a lot like those in other models. They are fairly significant around what the unemployment rate effect would be. The effect could be considerably closer to zero, or it could be bigger. Let's say that, for a given LSAP, the point estimate is a half a percentage point on the unemployment rate after three years—that's true for the way we are scoring alternative B. Could it be a quarter? Yes. A quarter is certainly inside the 70 percent confidence interval. Could it be three-quarters of a percentage point? Yes. That would be inside the 70 percent. So that's just saying what, I think, everyone agrees upon: there are very wide confidence intervals on these effects.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. While I was listening to Seth's disclaimers at the beginning, it sort of sounds like an Allegra ad on television [laughter]: These are the risks, et cetera. And the papers actually were quite good. The paper you particularly referenced had a lot of disclaimers in it. And what I am interested in seeing vetted more thoroughly is the degree to which this compounds the complexity of an exit when we decide to exit.

It seems to me one of the virtues of, particularly, "The Effect of an Additional $1 Trillion LSAP on the Exit Strategy" was the discussion of substantial uncertainty. There are lots of quotes in there that are qualified. It seems to me that the proponents of an extended LSAP would take a view from a signaling channel perspective that one of its benefits is that it is effective precisely because it makes it more difficult to either raise short-term interest rates or shrink the balance sheet for some time. And in a way, what I am concerned about—and I am interested in learning more—is the degree to which we tie the hands of our successors, or if not tie—maybe that is too strong a word—we tangle their hands, and how much more difficult the exit strategy becomes. It strikes me that the stronger the recovery—that is, the more rapidly we achieve equilibrium interest rates—the harder it is going to be for us to exit. And I would like to see that vetted a little bit more. I thought the papers touched on that, particularly the paper you referred to, but I think it would be helpful, Mr. Chairman, if we got a better sense of what complexities this imposes upon exit at the right time. Just a comment.

MR. CARPENTER. No, that's really helpful.

MR. FISHER. I don't know what your take is on this.

MR. CARPENTER. Absolutely. We clearly have a lot of details to write down. So if the Committee wanted to exit next week, or something like that, we would have lots and lots and lots and lots of details to write down, none of which are we prepared to give you right now, because the world presumably, between now and exit, is going to change. And so it is going to take some time.

That said, I just want to leave you with one thought. When we were writing these memos, one of the first points that we wanted to have clear in our heads before writing them—all of the staff who were working on this, including staff at the Desk who are experts on both financial markets as well as the execution of things and the staff at the Board—was, does anybody think that if we were to do another LSAP as envisioned in these memos, that when the Committee wants to tighten monetary policy, the staff would not be able to follow through on that? Because I wanted to make sure that everybody was able to look in their heart of hearts and say, "We think that the Committee will be able to tighten policy appropriately to hit its dual mandate," and everybody said, "Yes, we think we are in that situation." How we do it is not perfectly clear yet, for a variety of reasons. But we would have had to write a very, very different memo, I think, if we really thought there was some risk to the conduct of monetary policy in terms of our ability to execute the exit strategy.

MR. FISHER. You point out in the memo that there is a learning process here, in terms of the different tools that might be used. But I still think we should press this in our discussion before proceeding.

MR. CARPENTER. Absolutely.

MR. FISHER. Yes, sir.

MR. REIFSCHNEIDER. I want to follow up on one point because it also relates to what President Plosser was talking about. I think, whether it is connected to fear that we won't be able to exit or whether it is a signaling that the Committee is willing to be more accommodative persistently out in the future, those policy expectations can have a big effect on some of the results. Often, the way we score things—and I think I threw out a half a percentage point a second ago—doesn't take into account this additional signaling effect about the future path of the funds rate that you potentially can get. There is some evidence from the event studies that you did get it with the first two LSAP programs—that by announcing a program, you are also sending the signal that you are going to be more willing to keep rates lower for longer.

MR. FISHER. That's what I was—

MR. REIFSCHNEIDER. Right. At least as far as the model scores it, if that's fully credible, if the expected funds rate path the market has really flattens out, in principle, you get a nontrivial kick from that.

MR. CARPENTER. The only thing to highlight, though, is the difference between a willingness to keep the interest rate lower for longer versus an ability to raise them. And we don't currently worry about the second part—we don't worry about the ability to raise interest rates. But what the Committee decides to do, obviously, is about the willingness to keep interest rates lower.

MR. FISHER. Thank you. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. Does the FRB/US model allow you to isolate the kind of intermediate estimates—that might be credit aggregates or asset price index levels—that fit between lower interest rates and GDP growth, so that you could actually get a sense of the transmission mechanism working through the model?

MR. REIFSCHNEIDER. You can snip certain transmission mechanisms and see what it does to the total effect if you just zero it out. We have done experiments like that, and what it shows is, roughly speaking, changing Treasury yields, if it doesn't go out into any other asset prices, doesn't do anything in the model, to a first approximation. What matters is that it goes into private long-term interest rates, like MBS and corporates; second, that it goes into the stock market; and, third, that it goes into exchange rates. So you can think of it as three channels: cost of capital, wealth effects, and exchange rate. The model says each of those is worth roughly a third of the overall effect. So if you didn't believe one of the channels was operating, or you thought it was operating only half as effectively as it usually does, you could then scale the numbers down with that rough math. And that would be approximately correct. But in terms of what it implies for bank lending, or something like that, no, the model doesn't—

MR. LOCKHART. It doesn't explicitly estimate the—

MR. REIFSCHNEIDER. It doesn't have any explicit predictions about what happens to bank lending or anything like that.

MR. LOCKHART. So to simplify, for my purposes, the exercise assumes some kind of historical correlation between lower interest rates and economic activity.

MR. REIFSCHNEIDER. Yes.

MR. LOCKHART. Which may or may not prevail in this current situation.

MR. REIFSCHNEIDER. Which may or may not prevail, with one very important caveat. Because housing is at such an extraordinarily low percentage of GDP, in essence, that historical correlation has been marked down in these analyses. Ordinarily housing is a big source of a kick. In these scenarios, the direct channel on housing construction activity is worth hardly anything. It's a little bit, but it's very small. That could be right or wrong, but in the results that Seth was showing and that were in all the other analysis we've sent you, there is, in that very important sense, an attenuation of the effectiveness of monetary policy, whether it's conventional or unconventional right now.

CHAIRMAN BERNANKE. Okay. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I just wanted to follow up on this issue about confidence intervals. In figure 1, there would be data uncertainty; there would be uncertainty about transmission channels; there would be uncertainty about models. If you layered all of that together, you are going to get very wide confidence intervals. But on exhibit 2, where we are looking at the SOMA holdings, there we can sort of mechanically map out, more or less, what is going to happen. There is some uncertainty based on interest rates, and so on, but I just want to be clear on this: This is much more solid, I would say, than page 1, which is very uncertain and very speculative about what the effects might be. Is that a fair assessment?

MS. EZER. Our portfolio projections depend importantly on the interest rate assumptions that were provided, so those confidence intervals will feed through into our projections when it comes to things like Federal Reserve income over time. When it comes to, say, the top-left panel, the path of the portfolio over time, the confidence interval is probably a little bit smaller, provided that the assumptions that we made about the timing of liftoff and the strategy used for exit remain constant. There the confidence band would be in your projections for prepayments on your MBS portfolio. But since you are assuming that you are going to get rid of your holdings of agency securities over a set period of time, it is just going to change kind of the wiggles in how MBS declines over that period. But we would still eliminate it over a five-year period with confidence.

MR. BULLARD. Just one other comment, Mr. Chairman. On exhibit 2, panel 4, "Deferred Asset." That is kind of a nice term, "deferred asset." As far as I know, the Committee has never used the deferred asset. It strikes me as a possible political firefight to bring that into play. All of the scenarios here, other than option 1, if I'm reading this correctly, would bring the deferred asset into play, with possible repercussions, I think, for the Federal Reserve.

MR. CARPENTER. Just a small bit of clarification: It has never been the case that we have had, for the Federal Reserve System as a whole, a deferred asset. It has been the case on several occasions that there has been a deferred asset for a given Reserve Bank.

CHAIRMAN BERNANKE. I think the defense in that case would be that the total, which was including the very high remittances early in the period, still would be higher than historical norms.

MR. POTTER. That's correct.

MR. BULLARD. That might be a hard story to tell when the time comes.

CHAIRMAN BERNANKE. Vice Chairman, you have a two-hander?

VICE CHAIRMAN DUDLEY. Yes. I think the confidence intervals on interest rates are going to be almost proportionate to the confidence intervals on the real economy variables, because you are not going to know what the trajectory of short-term rates is going to be or the shape of the yield curve. And, in fact, you are probably even more uncertain about the shape of the yield curve because you have never gone from purchasing all of these assets to selling all of these assets. So we don't really know how the market is going to react to that.

The second thing I just want to note very briefly is a lot of this also depends on what monetary framework you are actually going back to. And the presumption of the staff memo is that we are going back to a corridor system. But you might decide, as you go through this, that maybe IOER works pretty well. And you might actually want to go back to a floor system that would allow you quite a bit more discretion in terms of how your exit actually works. And that would feed into a lot of these projections.

CHAIRMAN BERNANKE. Okay. Again, I want to thank the staff for all of the work you did to help prepare us for this meeting, including the work on LSAPs, but also work on other tools like IOER. So we appreciate it very much. Let me turn to item 2 and call on Simon Potter to discuss financial developments.

MR. POTTER.[2] Thank you, Mr. Chairman. Over the course of the intermeeting period, global financial markets were dominated by three areas of focus: the ECB's new Outright Monetary Transactions (OMT) program, fluctuating expectations for further policy accommodation from the FOMC, and continuing concerns over global growth prospects. By the end of the intermeeting period, market perceptions of the effectiveness of policy measures to at least attenuate tail risks facing the global economy contributed to improved risk sentiment in financial markets, as seen in higher advanced economy sovereign yields and stock markets.

I will begin with developments in U.S. interest rates, which in the Treasury market were moderately higher over the intermeeting period. The upper-left panel shows the decomposition of changes in nominal yields for 5- and 10-year securities during key portions of the intermeeting period. Nominal Treasury yields increased significantly early in the period, with the 10-year yield up by more than 35 basis points at one point. Most of the initial increase in yields was driven by improved risk sentiment on expectations of a forceful ECB policy response, as well as by stronger-than-expected U.S. economic data. The rise in yields partially reversed following the release of the August FOMC minutes and continued somewhat after the Jackson Hole symposium. The move lower in the 5-year real component was consistent with growing expectations for policy easing. To date, there is little evidence of worries of the fiscal cliff affecting pricing in the Treasury or other markets.

At the same time, inflation compensation, as derived from inflation-indexed securities, rose at the 5- and 10-year tenors. Higher energy prices contributed to the increase in inflation breakevens, particularly at shorter maturities. However, spot and forward 5-year breakeven inflation rates remain well within recent historical ranges, as seen in the upper-right panel.

As shown in the middle-left panel, dealers continue to assign the highest probability of a first increase in the target rate to the second half of 2015. However, the distribution has continued to shift from earlier liftoff dates and into 2015 and beyond. The survey results are broadly consistent with market-implied measures of liftoff, as market prices indicate significant odds that the target rate will not be increased until the middle of 2015.

Immediately following the FOMC statement on August 1, interest rates increased, as markets had been pricing in close to even odds of an extension of the forward guidance. The middle-right panel shows an event study based on the small sample of forward-guidance surprises. Reading from left to right, the blue dots represent the three events in our study: first, the decision to maintain the late-2014 forward guidance at the most recent meeting; second, the extension of the forward guidance to late 2014 at the January meeting; and third, the introduction of the original mid-2013 language in August 2011. The x-axis measures the surprise component of these decisions, which we measure in months and derive from the difference between the announced forward-guidance date and the expected month of liftoff calculated from

[2] The materials used by Mr. Potter are appended to this transcript (appendix 2).

our dealer surveys. The *y*-axis measures the change in the 10-year Treasury yield after the FOMC announcement. Alternative methods of measuring the surprise in months yield broadly similar results. Averaging across these measures suggests a rule of thumb of roughly a 1 basis point change in the 10-year Treasury yield for each month of forward-guidance surprise. Of course, measuring announcement effects is complicated by the interaction between forward guidance and expectations for the balance sheet, including exit, which this analysis does not consider. In the three events examined, there were no explicit changes to the balance sheet or exit principles.

Turning to other domestic assets, MBS spreads to Treasuries are narrower over the intermeeting period, as seen in your lower-left panel. Investors attributed much of the fluctuation in MBS spreads over the period to shifting expectations for Federal Reserve purchases, especially in the last few days. By contrast, two other intermeeting developments may serve to tighten mortgage market conditions on the margin. First, the FHFA announced that it will raise guarantee fees on GSE loans by 10 basis points starting in the fourth quarter of this year, a fee that lenders will likely pass on to borrowers. Second, the Treasury announced that the wind-down of the two GSEs' portfolios will accelerate to a 15 percent yearly rate, from 10 percent at present. Much of the wind-down is expected to occur through paydowns, necessitating only a small portion of sales from the portfolio over the next year. Given this, investors do not expect the accelerated wind-downs to be disruptive to the MBS market, and spreads to Treasuries were little changed following the announcement.

The final panel looks at how recent developments have affected U.S. risk assets. Overall, the stabilization in European financial markets and heightened expectations for domestic policy easing have supported both equity and debt markets. The S&P 500 index rose over the intermeeting period by more than 4 percent and is currently at its highest level since the beginning of 2008. Near-term uncertainty, as measured by the VIX, is near multiyear lows. High-yield bond spreads have tightened to levels last observed in 2011:Q3, and corporate bond issuance in July and August has been higher than over the same period last year.

Your second exhibit turns to developments in Europe and global asset prices more broadly. The most important development in global financial markets was the steadily growing expectation that the ECB would announce an effective new program to purchase shorter-dated peripheral sovereign debt. As seen in the top-left panel, these expectations led to a significant narrowing of peripheral sovereign debt spreads to German yields, particularly at shorter maturities within the scope of the program.

Many of the uncertainties regarding the new program were resolved by the ECB announcements last week, leading to a further narrowing of peripheral spreads, additional gains in European equities, and appreciation of the euro against the U.S. dollar and the Swiss franc. Indeed, euro-area financial markets have exhibited a greater degree of stability over the intermeeting period, and investors do not appear to be seeking significant protection against large swings in asset prices, as seen in the upper-right panel, “Implied Volatility on European Equities and on the Euro-Dollar Currency Pair.”

As Steve Kamin will note in his briefing, the OMT program has the potential to ease financial stresses but must be accompanied by fundamental reform measures at the national level. Changes in forward peripheral spreads to Germany appear consistent with this view. Your middle-left panel shows Spanish and Italian five-year debt spreads relative to Germany on a five-year-forward basis. These forward five-year spreads have come down much less than spot spreads on instruments that are within the maturity range of the ECB’s purchase program.

In the near term, financial markets will face a number of uncertainties, including the ongoing EU and IMF review of Greek compliance with the terms of its aid program. In addition, for those countries not already in a program, the ECB will not activate the OMT unless there is agreement on conditions for accessing fiscal support facilities. It is unclear whether Spain will take this step without renewed market pressure.

Looking forward, both Spain and Italy need to ramp up debt issuance over the remainder of the year, after issuing at a somewhat tepid pace in recent months. This can be seen in the middle-right panel. Spanish and Italian banks have historically been a significant source of demand for their own sovereign’s debt. However, that source of demand has dropped off in recent months. As shown in the bottom-left panel, since the ECB’s last three-year LTRO, Italian banks have added to their sovereign debt holdings at a greatly reduced pace. Spanish banks have actually brought down their holdings of sovereign debt since the first quarter, given their own funding difficulties. On a more positive note, anecdotal reports suggest that asset managers are reducing their underweight positions on Spanish and Italian debt, and access to primary debt markets has improved for Spanish and Italian banks.

The last panel of this exhibit focuses on global risk assets more broadly. The accommodative policy stance of many central banks has been supportive of equity markets in recent months, particularly in the United States and Europe. In contrast, emerging market equities have generally underperformed, reflecting investors’ views that these regions may be experiencing a slowdown in economic activity. China’s Shanghai Composite Index remains at levels last seen in early 2009.

Your final exhibit focuses on recent Desk operations and market expectations for additional policy actions as reported in the dealer survey. Over the intermeeting period, the Desk purchased $60 billion in longer-term Treasury securities and sold or allowed to mature without reinvestment $58.5 billion of shorter-dated securities under the maturity extension program (MEP). These operations continue to proceed smoothly. In particular, the Treasury security purchase operations have recently met with better demand. As shown in the upper-left panel, the previous trend toward lower coverage ratios and less favorable prices for the purchase operations reversed somewhat.

As shown in the upper-right panel, the MEP transactions have been lengthening the average duration of the SOMA's Treasury holdings in line with the policy intent. This measure is expected to reach about eight years if the program continues through the end of the year, far longer than the historical range of two to three years. This has pulled the average duration of the overall portfolio higher as well, given that the duration of the MBS portfolio has recently remained steady at around two years.

The next two panels focus on the reinvestment of principal payments on the SOMA's holdings of agency debt and MBS. Over the intermeeting period, the Desk purchased $33 billion of MBS. These reinvestment purchases have generally proceeded smoothly, with market trading volumes remaining steady and only some instances of specialness in the coupons being purchased.

The middle-left panel shows the monthly pace of paydowns, which has averaged about $26 billion since October of last year. Given continued low interest rates, we expect the paydowns to run at roughly $31 billion per month through the end of the year. Such a pace would suggest that the MBS purchases resulting from the reinvestments of the agency paydowns would constitute about one-third of the gross issuance of TBA-eligible securities.

The middle-right panel shows the distribution for the 30-year sector of principal paydowns to the MBS portfolio, as well as the coupons in which the Desk has reinvested. The portfolio continues to shift into lower-coupon securities, reflecting the overall decline in rates and the decision to concentrate purchases in newly issued TBA securities that are more liquid and more directly linked to the primary rate. Since June, low interest rates have led to paydowns of holdings of lower-coupons MBS, including the 3.5 and 4 percent coupons. Newly issued securities also have longer duration than those paying down, so these purchases have extended the duration of the MBS portfolio.

Your final two panels of this exhibit show results from the most recent dealer survey. We used a phone poll this Monday to update some of the answers, following the significant developments in Europe and the employment report. As seen in the lower-left panel, dealers assign a 90 percent probability to any easing action being announced at this meeting. More specifically, dealers place very high odds of 80 percent on a change to the rate guidance. The median respondent also saw a 65 percent chance of an announced increase in the size of the SOMA portfolio. Expectations for these policy actions firmed somewhat following last Friday's employment report. The derived joint probability for an extension of the forward guidance and the announcement of additional asset purchases increased to 57 percent in this Monday's phone survey, up from 46 percent in the dealer survey.

The panel to the right shows the dealers' projections for the size and distribution of additional asset purchases anticipated through the end of 2013, as derived from respondents' expected path of the SOMA balance sheet. Respondents expect the size of the balance sheet to grow by around $600 billion by the end of 2013. Median expectations are for an increase of $300 billion in Treasury and about $300 billion in

> MBS holdings by the end of 2013. While not asked specifically about the structure of a potential asset purchase program, some respondents indicated in their written comments that they expect an open-ended program conditioned on economic variables. Mr. Chairman, this completes my prepared remarks.

CHAIRMAN BERNANKE. Thank you very much. Questions for Simon? President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Two questions for Mr. Potter. The first has to do with the duration of our holdings of agency MBS. The graph indicates the average duration of our current holdings is around two. Now, would our average duration of purchases under what we're going to talk about later today or tomorrow, would that be substantially larger? Do you have a sense of what that would be?

MR. POTTER. Yes. Somewhere between four and six. Is that right, Nate?

MR. WUERFFEL. That's correct.

MR. LACKER. Four and six?

MR. POTTER. Yes.

MR. LACKER. Okay. So the other question I have—I was at a conference a couple of weeks ago. I believe I saw you there, Mr. Potter, and—

MR. POTTER. Symposium, yes.

MR. LACKER. An economist there was arguing that the effect of our forward guidance occurred more via revisions in investors' expectations about future economic conditions rather than a change in their views about our future reaction function, and because you folks have such rich interactions with the dealer community and you talk to them about this forward guidance, I wondered if you guys had a view as to the economist's assertion.

MR. POTTER. Those dealer economists also read about Jackson Hole. Some of them were there, so I think they viewed that with quite a lot of interest. In the dealer survey, some people thought that the change in rate guidance might be not just a calendar type, but trying to distinguish it from just a pure expectation of where you expected the economy to be. I don't think it's possible to get a very clear answer from these respondents, because I don't think the FOMC's been completely clear on this either.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Simon, I think I heard you correctly. So we've been purchasing about a third of the eligible TBAs, and you also mentioned that there's a planned increase in the rate of GSE wind-downs to 15 percent from the 10 percent level earlier. Is that likely to change? If we were to proceed with just $30 or $40 billion, as outlined in alternative B, would that change our percentage of the eligible TBA purchases, given the contraction that's occurring among the agencies? If my memory is correct, they had about $1.4 trillion. It goes back to last March. I can't remember the last time I looked at the numbers. So that's about $15 billion; 15 percent translates to about $15 billion, I think, in the contraction. I'm just curious if it affects the percentage of eligible TBA that we'd be holding if we were to proceed.

MR. POTTER. No, I don't think so.

MR. FISHER. Thank you.

MS. LOGAN. We're currently purchasing about a third of gross issuance. That number is going to go up to 60 to 75 percent, depending on which option the Committee chooses.

MR. FISHER. Right, so that is not affected by—

MS. LOGAN. The reduction that the GSEs are doing is happening in more than just TBAs; they're reducing in other types of securities as well. So I would think that number is probably fairly small. In terms of the total amount outstanding, we're currently going to have about 18 percent of the MBS, and that would move to about 25 percent.

MR. FISHER. Okay, thank you. And just an observation, if you look at your panel 5 and, particularly, the high-yield spread on panel 6, things obviously are going our way. This is what we would like to see, as well as the equity price response. What doesn't seem to be going our way—and I only point it out as an offset, even though it's a short time horizon—is it seems that the breakeven inflation rates—whether it's the 5-year, 5-year forward; the 5-year; the 10-year, which is not on this chart—bottomed in the spring of this year, and the slope is upward. We can talk, perhaps, later. I don't know if we've done an LSAP-type program in a context of rising inflation expectations or not. I think there was at least a chart in the Tealbook that would indicate we haven't done one yet under those circumstances.

But I just point out, Mr. Chairman, that if you draw a line from the bottom of the 5-year rate, it really bottomed out in the summer of 2011 and has been on the rise. I'm not saying it's dangerous, and it may be something that we would like to encourage, or some at this table would like to encourage, but we do have rising inflation expectations. And to say inflation expectations are contained—we might think about how we want to phrase that as we get down to the policy statement of tomorrow.

CHAIRMAN BERNANKE. I'm not sure I take the same inference. The 5-by-5 is pretty flat and is lower than it was last year.

MR. FISHER. And the 5-year?

CHAIRMAN BERNANKE. At the margin, and the 5-year is obviously being affected by the oil price movements.

MR. FISHER. And the 10-year also is not on this chart, and then gold prices, of course, have increased significantly, for those who care about that ancient relic.

MR. POTTER. It is true that the deflation risk we can calculate is lower than it was in 2010.

MR. FISHER. Right. Thank you.

CHAIRMAN BERNANKE. Other questions for Simon? [No response] Okay. Seeing none, we need to vote to ratify domestic open market operations since August. Without objection? Okay. Our next item is the economic and financial situation, and David Wilcox and his colleagues will make that presentation.

MR. WILCOX.[3] Thank you, Mr. Chairman. I think there should be a single summary exhibit. You all may be relieved to know that my prepared text includes 1,192 words, and I do not plan to ad lib an additional 2,000 words into my delivery. [Laughter]

As you can see from the upper-left panel of the forecast summary exhibit, the near-term outlook for real GDP growth in last week's edition of the Tealbook is broadly similar to the one that we sent you in July. To be sure, the July gain in real PCE was better than we had expected. However, consumer sentiment—shown in the lower-left panel—has remained downbeat, job gains have been modest, and the price of gasoline has moved back up, all of which caused us to largely discount the favorable spending news. Similarly, July shipments of capital goods were stronger than we had expected, but forward-looking indicators, including the continued decline in the capital goods orders data, as well as the subdued responses to various surveys on capital spending plans and business conditions, are consistent with only subdued near-term increases in business outlays. If you squint hard at the upper-left panel, you will detect that we shifted a little GDP growth from the second half of this year into the first half of next, reflecting our assessment that the drought will depress farm output in the second half of this year by more than we had predicted in July.

The one component of aggregate demand that has seemed to have been on a somewhat stronger trajectory relative to our expectation in the July Tealbook was net exports. Even so, last week's forecast called for GDP growth to average just 1.8 percent through the middle of next year, about in line with our prediction for the growth of potential over this period.

Since the Tealbook closed, the main piece of economic news was last Friday's employment report. In a seeming exception to Dave Stockton's famous description of the usual shelf-life of the staff economic forecast, our jar of mayonnaise survived its first 48 hours in the Mojave Desert with only relatively minor signs of spoilage. [Laughter] The red line in the bottom-right panel summarizes our effort to combine

[3] The materials used by Mr. Wilcox are appended to this transcript (appendix 3).

the signals from the establishment and household surveys (the latter of which is not shown on the chart because it is so noisy compared with the establishment results), and to control for weather effects and recession-related seasonal adjustment distortions. As you can see from the downward tilt toward the end of that line, the estimated underlying pace of private payroll employment growth has trended lower over the course of this year and now is at the low end of the range that it has occupied during the past 2½ years. The unemployment rate unexpectedly declined 0.2 percentage point, but like many other analysts, we have been inclined to see more weakness than strength in the totality of the results from the household survey, given that the employment measure from that survey and the participation rate both declined. Based on our projected path for real GDP over the next several quarters, we continue to expect the unemployment rate to average around 8¼ percent through the first half of next year. I should also note that the workweek was lower than we had expected, and average hourly earnings were flat, rather than increasing slightly as we had expected. In combination, these results suggest a modestly weaker trajectory for compensation and, therefore, household spending than we had factored into the Tealbook.

Two other key pieces of information released since the Tealbook were also weaker than expected. In particular, vehicle assembly plans now point to a slower pace of motor vehicle production in the third and fourth quarters than we had projected in the Tealbook, while—as Steve will discuss shortly—the latest foreign trade data were slightly to the soft side of our expectations in terms of their implications for GDP growth.

In all, these bits of information would cause us to shave about ¼ percentage point off our forecast for the pace of real GDP growth during the second half of this year, leaving our forecasted average growth rate for this quarter and next at an anemic 1¼ percent.

Turning to the medium term, we upgraded our outlook slightly relative to our July projection. As Steve will discuss, the improvement, such as it is, partly reflects a somewhat less worrisome situation in Europe than we had previously believed. As we described in the Tealbook, even after factoring in the disappointment that we think would ensue from an announcement of no change in the stance of monetary policy at the conclusion of this meeting, we judge that stock prices would remain on a slightly higher trajectory and the dollar would be slightly weaker than we assumed in the previous projection. These small positive influences are only partly offset by the increase in oil prices, part of which may itself reflect the improvement in sentiment related to the crisis in Europe.

The small upward revision to real GDP over the medium term led us to shave a little off of our projected path for the unemployment rate, which is shown in the top-right panel of the exhibit. Even by the end of next year, however, we expect no significant reduction in the unemployment rate. As real GDP accelerates more into 2014, the unemployment rate declines about ½ percentage point, ending that year at about 7½ percent.

Aside from the crisis in Europe, the other main concern that continues to loom over the domestic outlook is the fiscal cliff. On this front, there have been no major developments recently, and we continue to expect none, at least through the November elections. At this stage, I can only assure you that our decision to stand pat on our fiscal policy assumptions reflects no lack of concern or uncertainty on our part: The fiscal cliff continues to figure prominently in our thinking as a serious threat to the still-anemic recovery.

Turning to the inflation outlook, the incoming data on core PCE price inflation—the middle-right panel—have been close to our expectations. We continue to project that core inflation will hold steady at about 1½ percent through the end of 2014, reflecting anchored inflation expectations, a persistent margin of labor and product market slack, and modest gains in imported goods prices.

In response to the upward move in spot prices for crude oil since the July Tealbook, we have marked up our near-term projection for headline PCE inflation—the middle-left panel. We have, however, made only small revisions to our near-term food price forecast. Although we now expect the quantity effects of the drought to be worse than we had forecast in July, the futures prices that we used in preparing our July food price projection had apparently already incorporated almost all of the price effects. Despite the upward pressure from food prices that we think will begin to show through around the end of this year, we expect headline inflation to step down slightly in the first part of next year, as the anticipated reduction in crude oil prices implied by futures markets pushes down retail energy prices. Steve will now continue our presentation.

MR. KAMIN. In 1972, when Chinese Prime Minister Zhou Enlai was asked what he thought was the historic impact of the French Revolution, he famously answered: “It’s too soon to tell.” [Laughter] By those standards, assessing the implications of the European Central Bank’s plans to intervene in peripheral debt markets would seem hopelessly premature. And yet, as Simon has described, anticipations of aggressive ECB action have substantially calmed European financial markets, slightly brightening an admittedly still-cloudy outlook.

As described in its announcement last week, the ECB plans to purchase sovereign debt on the secondary market, provided that the beneficiary governments enter into an arrangement with the region’s financial backstop facilities and agree to policy conditionality. Although the ECB will be announcing neither a target ceiling for yields on peripheral debt nor the amounts it intends to purchase, it has signaled a more aggressive and sustained program than its earlier forays into bond markets.

Beyond simply comforting investors that the ECB is riding to the rescue, these plans could ease financial stresses in a number of ways. First, by lowering yields, the bond purchases would reduce public debt service burdens and improve fiscal sustainability. Second, and as a related matter, by taking sovereign bonds out of the hands of private investors, ECB purchases may create room in those investors’ portfolios for new issues, thereby improving the governments’ access to financing.

Finally, the package of ECB purchases, plus access to the regional financial backstop facilities, is widely anticipated to involve less stringent conditionality, and thus less stigma, than the full-blown IMF and EU rescue packages received by Greece, Ireland, and Portugal. In consequence, it is more likely, though far from certain, that Spain and/or Italy may request financial assistance before market conditions have become so adverse that further financial turmoil is inevitable.

With markets figuring in brighter prospects for official support, financial stresses over the next several months are likely to be less pronounced than we assumed in the July Tealbook, and we are anticipating that, barring further adverse shocks, European markets could soon begin the long, slow process of normalization. However, we are still very far from being out of the woods. In the near term, European leaders still need to work out the conditionality to be required of governments benefiting from the financial rescue facilities and ECB intervention, and that could be contentious. Additionally, IMF and EU officials are currently assessing the status of Greece's struggling adjustment program—although Greece's official creditors are expected to approve a much-needed disbursement by October and postpone more difficult decisions until later, this is not assured, and a messy Greek exit from the euro area at this time could be quite dangerous.

Taking a longer view, the ECB's new program is not, to coin a phrase, a panacea. It can only give Europe breathing space to implement the fundamental reforms that will ultimately restore confidence. If the Europeans do not make progress on the measures needed to achieve fiscal and financial stability—budget consolidation, growth-promoting structural reforms, and region-wide banking initiatives—the ECB's ability to contain financial tensions will be sorely tested. Accordingly, market confidence likely will not be fully restored until the peripheral economies prove they can cut their budgets, improve growth prospects, and strengthen their banks—and all that could take a number of years.

In consequence, economic activity in Europe is also likely to remain subdued for some time to come. To be sure, the easing of financial stresses, combined with some data that have been less bleak than expected, have led us to project a somewhat shallower recession than we wrote down in the July Tealbook. Even so, in our current projection, euro-area GDP continues to contract through the middle of next year and recovers only very weakly thereafter.

The outlook for our other trading partners, while hardly as bleak as that for Europe, is nonetheless subdued. Excluding the euro area, aggregate foreign growth dropped from roughly 4 percent in the first quarter to less than 3 percent in the second, below its trend pace. Moreover, since your last meeting, indicators such as PMIs and exports have generally come in on the soft side.

These developments are worrisome, but considering the factors responsible for the slowdown, our best guess is that economic growth will bottom out in the coming quarters rather than deteriorate further. The pace of deterioration in Europe, which accounts for much of the United Kingdom's stagnation this year, as well as the slowdown in Asia's exports, is projected to become only a little more pronounced in the second half of this year. The recent weakness in U.S. growth has also weighed on our trading partners, but the U.S. economy should start picking up a few quarters down the road. And much of Asia's slowdown reflects the fading of the bounceback from Thailand's floods and Japan's tsunami last year. All told, we anticipate that foreign growth outside the euro area will stay subdued at 3 percent over the remainder of this year. It then picks up to 3¾ percent by 2014, as the euro area starts to recover, the U.S. economy picks up steam, and monetary policies around the world remain quite accommodative.

Another factor weighing on foreign growth, especially in Asia, has been China's slowdown from near double-digit rates in the past two years. Chinese growth registered 7½ percent in the second quarter of this year. With recent weak exports and PMIs leading us to revise down our forecast, we see growth remaining at that relatively subdued pace during the remainder of this year, before picking up to about 8 percent thereafter. Under these circumstances, we continue to scrutinize the data for indications of a hard landing, but we do not see any compelling signs that one is in the offing: Retail sales growth has remained reasonably solid, housing prices have flattened out, and the government retains the monetary and fiscal scope to counter a decline in demand.

The effect on oil prices of resurgent political tensions over Iran poses another threat to the global economy. Crude oil prices have now retraced more than half of their decline from earlier this year, and our current projected trajectory of oil prices averages roughly 10 percent higher than in the July Tealbook. A rise in oil prices of this magnitude should not substantially affect the foreign outlook. By our rough estimates, it could reduce economic growth in the advanced economies by 0.1 percentage point over the next year or so, while the effect on aggregate emerging markets growth is roughly a wash, as gains by oil exporters offset losses by importers. By the same token, our inflation outlook is a bit higher in the near term but little changed further out. However, no resolution of the problem of Iran's nuclear program is in sight, and we are attuned to the risk of much steeper rises in oil prices.

All told, considering the momentous developments taking place in the global economy—Mario Draghi's plan to save the euro, China's struggle to achieve a soft landing, and fluctuations in commodity markets—the outlook for U.S. trade is, well, not so momentous. In the first half of this year, notwithstanding the global slowdown and the rising dollar, net exports managed to eke out a small positive contribution to U.S. GDP growth. We received trade data for July yesterday; both exports and imports fell, but the trade balance was little changed. Accordingly, we retain our view that for the next couple of quarters, the combination of slowing foreign growth, a still-elevated dollar, and the effects of the drought on agricultural production leads to some moderation in export growth, and the external sector imposes a modest drag on the economy. After that, net exports gradually shift back toward neutral, as the global economy picks up and European stresses subside, so that a reversal of flight-to-safety flows allows the dollar to start depreciating. Thanks to Mr. Draghi, this projection is based on a somewhat lower path of the dollar than in the July Tealbook, and thus a bit faster export growth and less drag from net exports. Andreas will continue our presentation.

MR. LEHNERT.[4] I'll be discussing material from our recent QS report on financial stability and from an earlier memo on the effect of low interest rates. In our report, the most prominent shocks we identified were an intensification of the European sovereign crisis and a U.S. recession, perhaps brought on by a suboptimal resolution of the "fiscal cliff." The major vulnerabilities we highlighted were, first, the market's perception that some large banks remain weak, despite substantial increases in capital and liquidity, which raises the likelihood of funding runs and increases the cost of raising capital; second, the unstable funding model of broker–dealers; and, third, the persistent risk of runs on money market funds.

We have also placed increasing emphasis on vulnerabilities stemming from the low interest rate environment, and that's what I'll focus on today. After all, long-term Treasury yields haven't been below 2.5 percent for a sustained period since 1954, a time when the financial system was quite different.

A low short-term interest rate policy, given strained household and business fundamentals, is designed to improve macro performance. The benefits arise, in part, from increases in asset prices and, thus, the value of collateral held by businesses and households. These increases should, in turn, enhance financial stability. But a low rate environment could lead investors trying to boost yields to borrow too much, take on too much risk, or bid up asset prices enough to stretch valuations. Relatedly, important parts of the financial system might become vulnerable to a rapid rise in rates.

To assess these risks, we surveyed a wide range of asset markets and financial institutions looking for signs of excessive valuations, greater leverage, or increased risk-taking. To summarize, we found little evidence that the low rate environment has fostered additional vulnerabilities to date: Valuations for broad asset classes are not stretched, and we identified only a few isolated pockets of increased risk-taking.

As shown by the top panel on your first exhibit, estimated term premiums for 10-year Treasury yields are quite low, due in part to safe-haven demand for Treasuries resulting from strains in Europe. Term premiums—and thus Treasury yields—could increase quickly if, for example, concerns about the U.S. fiscal situation were to intensify.

Your next three panels cover valuations in three major U.S. asset classes: equities, residential real estate, and corporate bonds. Overall, valuations across these asset classes show little sign of pressure. As shown in the middle left, stocks are not trading at unusually high multiples; indeed, forward price-earnings ratios are generally well within their ranges over the past 20 years. Our measure of residential real estate valuation, shown to the right, is near an all-time low. Risk premiums in

[4] The materials used by Mr. Lehnert are appended to this transcript (appendix 4).

the high-yield corporate bond market—as measured by the implied forward spread far out in the future (the black line in the bottom-left panel)—are near their average of the past 20 years, notwithstanding the extraordinary highs experienced during the financial crisis.

However, valuations of assets in narrower and less-liquid markets have shown signs of pressure. Issuance of so-called leveraged loans has been robust this year. Moreover, there is a trend toward lighter use of loan covenants and increased leverage. As shown to the right, average ratios of debt to earnings—known as a debt multiple—among this class increased further this year, although it remains below its pre-crisis levels.

Your next exhibit considers evidence on leverage and risk-taking. In the nonfinancial sector, as shown by the pink and blue regions in the top panel, household and business leverage has continued the decline begun in the recession. Government borrowing, by contrast, has picked up, leaving the ratio of debt held by the public to GDP at its highest level since World War II.

As shown in the middle two panels, there are signs that, potentially, commercial banks are taking increased interest rate risk. Banks have increased their holdings of long-maturity securities. As a result, their portfolios may be more sensitive to a sudden rise in interest rates than they were a year ago, depending on their interest rate hedges. The low interest rate environment, combined with an unlimited FDIC guarantee on transactions accounts, has attracted a surge of deposits to banks. The ability to issue deposits at below-market rates should benefit banks were rates to rise; however, we don’t have historical experience to judge the sensitivity of these new deposits to a rise in rates. That said, as discussed in the Tealbook, results from a recent informal survey of banks suggested they did not think it was likely that deposits would decline rapidly when the added insurance expires. We’re currently working with economists and supervisors from throughout the Federal Reserve System on an analysis of interest rate risk at banks and plan to include the results in our December report.

Life insurance companies are vulnerable to extended periods of low interest rates, in part because they have a significant body of liabilities with guaranteed returns that exceed current yields on safe assets. As a consequence, insurers may be feeling particular pressure to reach for yield by extending their exposure to duration and credit risk. Indeed, as shown in the bottom left, the average maturity of insurers’ bond portfolios has risen in recent years, as firms accept greater duration risk. However, the shift isn’t particularly dramatic, and we are working with colleagues here and at the Federal Reserve Bank of Chicago to understand the risks faced by, and posed by, these institutions.

The panel to the right shows the rapid rise in assets of real estate investment trusts—REITs—that specialize in holding agency-guaranteed mortgage-backed securities. While these institutions are something of a niche player, their business model of funding agency MBS holdings with repo, while vulnerable to sharp rate rises, has proved quite profitable in recent years, producing double-digit returns for shareholders. This growth is one of the clearest indications we have of the willingness of some investors to take on additional interest rate risk in order to earn higher current returns. This willingness may be enhanced by the apparent safety of investing in GSE-guaranteed securities. In terms of their systemic threat, at their current scale, the sudden distress of mortgage REITs would likely be painful but manageable for the broader financial system.

I'll conclude with a less quantifiable form of risk produced by the low interest rate environment, related to a sense that a great deal of money is sitting on the sidelines. Consider two examples: First, respondents to the SCOOS report that their clients have significant unused borrowing capacity; and second, private equity firms focused on leveraged buyouts have elevated levels of committed but uninvested capital. All of this and more amounts to "dry powder" that could be deployed quickly. Thus, while our ongoing monitoring efforts have so far found little evidence that the low interest rate environment has led to excessive increases in leverage, asset valuation, or risk-taking, investors do have the means to rapidly shift their portfolios. Ed Nelson will continue our presentation.

MR. NELSON.[5] I will be referring to the packet labeled "Material for Briefing on the Summary of Economic Projections."

As shown in the top panel of exhibit 1, under your individual assessments of appropriate monetary policy, you see real GDP expanding only moderately this year, but you expect the pace of the recovery to pick up next year and that economic growth in 2014 and 2015 will be somewhat above its longer-run value. Correspondingly, you expect the unemployment rate, shown in the second panel, to stay near recent readings for the rest of the year, before gradually declining over the subsequent three years. All of you expect that the unemployment rate at the end of 2015 will be appreciably below its present rate; nevertheless, almost all of you expect it to be above what you judge to be its longer-run normal level. Turning to the bottom two panels, you generally expect total PCE inflation of around 1¾ percent over the four quarters of 2012. For 2013 through 2015, you generally see core and overall inflation staying close to or slightly below your 2 percent inflation objective.

Exhibit 2 tabulates the ranges and the central tendencies of your projections, along with comparisons to the June SEP and the current staff forecast. Compared with your June projections, you now anticipate a slightly stronger recovery and a somewhat larger decline in the unemployment rate over the projection period. Your inflation outlook is little changed. The Tealbook forecast—which embeds the assumption of no additional accommodation—puts economic growth in 2013 and 2014 at the lower end of your central tendency, and the unemployment rate above it; the 2015 forecasts, however, are within the central tendency. The Tealbook forecast for inflation runs consistently below your central tendencies for 2013 to 2015.

[5] The materials used by Mr. Nelson are appended to this transcript (appendix 5).

Exhibit 3 provides an overview of your assessments of the appropriate path for the federal funds rate. As shown in the top panel, most of you think that it will not be appropriate to begin raising the funds rate until 2014 or later. About two-thirds of you now see firming only beginning in 2015 or 2016, compared with about one-third of you in June. Four of you—two fewer than in June—now believe that economic conditions will warrant increasing the federal funds rate before 2014. Two of you favoring a funds rate increase before 2014 cited the need to tighten policy relatively soon in order to prevent inflation from exceeding the Committee's 2 percent objective, and two pointed to the need to forestall financial imbalances. Many of those who would not raise the funds rate until 2014 or later cited sizable output or unemployment gaps alongside an inflation profile unlikely to exceed 2 percent over the medium run.

The bottom two panels of the exhibit provide your assessments of the appropriate target for the federal funds rate at the end of each year of the forecast period and over the longer run. For the 6 participants who see the funds rate leaving the effective lower bound in 2014 or earlier, the median value for the funds rate at the end of 2014 is 1.75 percent. The 12 participants who expect that the funds rate will not leave the lower bound until 2015 judge that the appropriate funds rate at the end of that year will be 1.6 percent or less, while the 1 participant who sees the start of firming in 2016 sees the funds rate at 75 basis points at the end of that year (not shown).

Fourteen of you now judge that "appropriate monetary policy" calls for a more accommodative path for the federal funds rate than in your June SEP, involving either a lower target for the funds rate at the end of the initial year of firming or a shift out in the first year of firming. Moreover, 11 of you indicated that appropriate policy calls for additional asset purchases, at this meeting or before long.

Exhibit 4 depicts the economic conditions that you anticipate for the year in which you expect the first funds rate increase. Your projected unemployment rates range from about 5¾ to 8 percent, with a median of 6½ percent, while your inflation projections are in a narrow range of roughly 1¾ to 2¼ percent, with a median rate of 2 percent. Generally, participants who expect the first funds rate increase in 2012 or 2013 (shown by the blue triangle and white diamonds) see a higher level of unemployment at the time of the first funds rate increase than do those reporting later firming dates (shown by the gray circles, dark blue squares, and the gray triangle).

The final exhibit reviews your assessments of the uncertainty and risks surrounding your economic projections. As shown in the top two panels in the column on the left, almost all of you continue to indicate that you judge the current level of uncertainty about GDP growth and unemployment to be higher than the average level over the past 20 years. The corresponding panels to the right indicate that you continue to view the risks to GDP growth as weighted toward the downside and, accordingly, the risks to unemployment as weighted to the upside. Many of you attributed your continued emphasis on downside growth risks to concerns about Europe and U.S. fiscal policy; other factors cited included uncertainty about the level and growth rate of potential output and the possibility of a hard landing in China.

> Turning to the bottom two panels, 8 of you assess the uncertainty attending your projections for total PCE inflation as higher, and another 10 of you see the uncertainty as broadly similar to the average level of uncertainty over the past two decades. Most of you continue to see the risks to inflation, shown to the right, as broadly balanced. Thank you. That concludes the staff presentations.

CHAIRMAN BERNANKE. Thank you very much for your presentation. The floor is open for questions. President Lacker.

MR. LACKER. Mr. Wilcox, the lower right-hand panel displays a model estimate, and I was wondering what it's an estimate of.

MR. WILCOX. It's a statistical exercise that tries to combine several different sources of information. First and most broadly, it combines the payroll survey estimate of job gain with an adjusted measure from the household survey, where the adjustments—

MR. LACKER. Have been comparable.

MR. WILCOX. —try to take the household measure and do about a dozen or 15 adjustments that put it on, as conceptually as possible, an apples-to-apples basis with the establishment survey.

The second category of information that it builds in is that we had one of our seasonal adjustment experts, Charlie Gilbert, take a close look at this series, specifically with a question in mind of trying to discern effects on seasonal factors that stem from the timing of the sharp downdraft in employment in 2008 and 2009, and to advise us on the extent to which those timing effects may have bled into seasonal factors, causing published estimates of seasonally adjusted job growth around the turn of the year to be systematically higher than they should actually be.

The third type of information that's built in is a regression-based analysis of weather effects. It seems like a dim memory at this point, but we had, as you will recall, an extraordinarily warm winter this year, and there was some speculation that that may have shifted the timing of employment. Those weather-related effects are pretty small, but they're included here, as well, for the sake of completeness. And then around all of that, what we do is just apply a simple Kalman filter to the resulting series in an effort to extract for you where we think all this statistical evidence would point in terms of what's the best available estimate of job gain, taking account of all that information that's available to us. So it's, at some level, nothing more than a statistical exercise to try to extract signal from noise. On the other hand, it packs in a tremendous amount of information.

MR. LACKER. Those all sound like very useful and constructive statistical initiatives. I just wondered what the target you were aiming at trying to estimate is. I mean, is it the trend or the current value?

MR. WILCOX. It's essentially a smoothed trend that takes account of both the information in the establishment survey and the household survey. I mean, I could reiterate: It takes account of that; it tries to adjust for weather and seasonal—

MR. LACKER. You're aiming at a true measure of the current gain, or a true measure of the trend?

MR. WILCOX. True measure of the current gain, smoothing through a variety of sources of noise.

MR. LACKER. A smooth measure of the current gain. I'm less confused now.

CHAIRMAN BERNANKE. You're confused at a higher level. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. I actually drove back from our western symposium this year with two geriatric dogs and other things, but I want to comment on the fact that driving across the state of Nebraska, what struck me was the drought and the corn crops and just how dead the entire state of Nebraska looked, at least from Interstate 80.

You made some reference to the drought and the corn crop, and I remember reading somewhere—I couldn't find it in my searching—about your estimated effects of the drought on GDP this quarter and next. And I'd like to hear you talk a little more about what you think those effects were; the ramifications of those effects, of how they bleed, in some sense, through in your forecast to your employment forecast, for example, through an Okun's law measure because GDP is lower; how much impact you thought it had on the gap in the near term; and how that dissipates through your forecast. Can you just walk me through those linkages—this is clearly a classic supply shock of a drought—and how much then it feeds into other things that matter that we look at a lot for monetary policy?

MR. WILCOX. So I'll take a first crack at it and invite my other colleagues to jump in with additional information. We thought in July we had built in some quantity-related effects—about $10 billion is my recollection—on farm output. This time, based on USDA assessments of field conditions—people may be doing something a little more systematic, out walking in the fields with their clipboard and so forth to look at corn yields; corn is one of the crops that is most affected—we think that it's about a $30 billion hit to real farm output this time, so substantially bigger than what we had built into the July projection.

We think that that's likely to show up mostly in a decumulation of inventories in the third and fourth quarters. The way that inventory arithmetic works, the hit to GDP growth is going to be concentrated in the third quarter. We've got the same rate of inventory decumulation built into the fourth quarter, but because it's the same rate of decumulation in both quarters, the effect on GDP growth we've penciled in is zero in the fourth quarter. We also think there will be a small additional negative effect on agricultural exports as well, so that's where in terms of the GDP accounting—

MR. PLOSSER. And that led to how much of a decrease in your estimate of GDP growth for the third quarter?

MR. WILCOX. About 0.8 percentage point on GDP growth.

MR. PLOSSER. Yes, 0.8 percentage point. That's what I thought I remembered.

MR. WILCOX. We think—we hope—that's going to be a transitory supply shock and that next year, our planning assumption has been, crop yields are going to come back to normal. Now, there's sort of a philosophical question about when that actually occurs. If we were operating in annual data, it would be perfectly clear that it would happen in 2013. However, the way that the BEA does it, and we've been in very close contact with them, is to smooth that through the four quarters of the calendar year, so that snap back to normal crop yields, basically at this point, of course, by assumption, occurs in the first quarter. So we're mimicking the BEA's algorithm in packing in the return to a normal level of GDP in the first quarter of 2013. That's not based on any pretense that anybody actually knows that that's the way the corn plants are going to grow in 2013. That's just the BEA methodology. I wouldn't have anything better to suggest to them if I were in their shoes.

Now, farm proprietors' income actually sees a much smaller effect because prices are up and there's crop insurance, and so the implications for nominal farm income are much less severe than they are for real output. We think that there's likely to be very little effect on employment because we've made the assumption that employers are going to smooth through this transitory effect. I wouldn't be surprised, of course, if there was some effect on things like farm equipment manufacturers and that sort of thing, but I think that's going to be lost in the noise in terms of our ability to actually estimate it.

MR. PLOSSER. So this wouldn't show up in any sense on your estimates of the magnitude of your output gap over the next two quarters? Would you raise that?

MR. WILCOX. Mechanically, I suspect our output gap will be a little wider over the second half of this year, and then it will just come back in the first quarter of 2013. Is that right, Bill?

MR. WASCHER. Yes, that's right. Because we tend to set potential growth on an annual basis, we didn't make an explicit adjustment to the gap measures you see in the Tealbook for the effects of the drought. I would say that in terms of when we look at Okun's law relationships and thinking about the path of the unemployment rate, we did take out the effect of the drought from potential in that equation. So we didn't want the drought to affect the unemployment rate forecast.

MR. PLOSSER. Yes, that's kind of what I was trying to get at. Okay. Thank you very much.

MR. REIFSCHNEIDER. One minor place it might show up, because we didn't do the adjustment, would be in the Tealbook B rules thing. It's pretty small, but the rules would respond to that.

MR. LACKER. Mr. Chairman.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. Did I just understand correctly that you removed the effect of the drought on the gap, the unemployment rate gap?

MR. WILCOX. In our Okun's law analysis, in setting the unemployment rate.

VICE CHAIRMAN DUDLEY. It will bounce right back.

MR. WILCOX. I'm sorry?

VICE CHAIRMAN DUDLEY. The effects are just going to go away in two quarters.

MR. WILCOX. It is a transitory effect. The funds rate is constrained at zero. So it doesn't have any implication for the funds rate. And in terms of calibrating the response of the unemployment rate to the GDP gap, we sterilized the GDP gap from transitory drought-related effects on GDP.

MR. LACKER. Okay. So let me just ask the question for which this is most germane—do inflation dynamics depend on this adjustment?

MR. WILCOX. I think we're talking about splitting a micron here, but—

MR. LACKER. Yes, but I'm just very curious about the principle here.

MR. WILCOX. The methodology is intended precisely to seal off the implications for core inflation. I should say, of course, the first-order implication for inflation is through food prices.

MR. LACKER. Yes, right, right.

MR. WILCOX. That has been allowed to feed through.

MR. LACKER. Right. But in terms of the gap's effect on inflation, you want to sterilize it from the effect that the drought is going to have on real output and employment in a year or two.

MR. WILCOX. Correct, yes.

MR. LACKER. Okay.

CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN DUDLEY. I have a question for Andreas. On exhibit 2, you have this chart that looks at nonfinancial sector credit to GDP. I keep staring at it, and I am still trying to figure out what implications I'm supposed to draw from it. The secular uptrend from 1956, at best, flattens out for a while. So the first question is what implication do you think we were supposed to draw from this? And, second, if you looked at a chart of nonfinancial sector assets to GDP, would that also show mostly a secular uptrend? And then, how do you put those two together?

MR. LEHNERT. I think there are key macro questions that are implicated by your question, which I'm not going to touch, but just from a financial stability perspective, at the very highest level, in some sense, financial stability concerns in a low-rate environment arise when you see people and businesses borrowing more. This picture was just supposed to be an easy way to portray the fact that we're not seeing households and businesses borrowing more.

VICE CHAIRMAN DUDLEY. Right. We could also interpret it as, gee, credit to GDP is still really, really high, and, therefore, that means bad things. That is what I was sort of getting at. So you don't take a negative signal away at all from the total level of credit to GDP is still high?

MR. LEHNERT. Yes, okay. I treated that as a separate question. So then there's a question, are we approaching some kind of fiscal moment, some sort of Sargent−Wallace moment, where the global carrying capacity for U.S. sovereign obligations is being reached? That's something that we highlighted in our report as a potential risk. If there's a material worsening in the fiscal outlook, or if there's some really ugly resolution to the debt ceiling negotiations in January and so forth, all those things could have negative implications for future stability.

VICE CHAIRMAN DUDLEY. But the total level here, if you add household, business, and government together, that's not a good sign.

MR. LEHNERT. If you look across countries, you would see a lot of different levels.

VICE CHAIRMAN DUDLEY. They're all over the place.

MR. LEHNERT. Exactly. So I don't know why Denmark is one and Japan is a different one, but we can just judge the United States by its own history.

VICE CHAIRMAN DUDLEY. Thank you.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. First, I wanted to thank Andreas for a very good summary, very helpful graphics, and so on. We're in the middle of doing our SABR analysis for banks, and one of the positive attributes we have noticed is that we seem to be seeing a brighter picture for the average bank. For example, the ones that we rate one or two probably are performing the best that we've seen in terms of the percentage of potential downgrades since December of 2006. So I think that's one positive aspect that wasn't included. I'm not being critical, but when you look at your second panel of long-term securities held by commercial banks and so on, there seems to be a healthier tenor, and we're not done with the analysis yet, but I just wanted to point that out.

With regard to seasonality, I wanted to ask Dave Wilcox about the August employment numbers; I think I'm correct in saying that that is a number that gets revised more frequently than others. I think 17 of the last 22 years, it's been revised, and if I remember correctly, last year it went from zero to 44,000 to 104,000, and I assume we're taking account of the fact that that is often a highly unreliable number. Am I correct?

MR. WILCOX. We're taking account of the fact that it is the best possible information, and we don't confuse it with truth, absolutely. [Laughter]

MR. FISHER. So we assume it gets revised more often than not?

MR. WILCOX. Yes.

VICE CHAIRMAN DUDLEY. The BLS has a confidence interval—the 90 percent confidence interval is plus or minus 100,000. So that gives you an idea.

MR. WILCOX. It's a sample-based estimate. It is based on a very large sample of employers. It's a universal sample of large employers and a statistically drawn probability sample of medium and smaller employers, but there are a host of issues associated with constructing that number, including the fact that not everybody that ultimately will report, reports in the first wave of responses and that seasonal adjustment, as my remarks described earlier, involves a great deal of science but some art as well. So I don't have any specific reason for doubting or casting aspersions on the August number, but you're absolutely correct that month in and month out, that's a number that is subject to two-sided revision.

MR. FISHER. And then lastly, just listening to Steve Kamin, this is perplexing about oil and gas prices, and particularly prices at the pump. There may be some seasonality in terms of the switchover that occurs, but given the weaker economy, which I think almost all of our forecasts have envisioned, and given the production that's taking place stateside, even accounting for the storm that took place in the Gulf, it just seems odd that we might expect oil prices to increase rather than hold level or decrease. And for what it's worth, the "oilies" that I speak to—from the independents to Tillerson at Exxon and so on—their expectation is that this has been a bit of a bulge, and that it's more likely to settle down and actually decrease somewhat. For what it's worth—and I always emphasize that because Mr. Tarullo insists that I do so when I talk about my anecdotal evidence—I just wanted to pass that on.

MR. KAMIN. Thank you. Just to be clear, our baseline forecast for crude oil prices in the markets is, indeed, to decline over time from the current level.

MR. FISHER. It wasn't clear the way you presented it. So I wanted to add that.

MR. KAMIN. Yes. So just to clarify, what I was alluding to was future upside risks that could take place if geopolitical problems in the Middle East became more pronounced than they are now.

MR. FISHER. Thank you. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I just wanted to come back to the financial stability handout, exhibit 2, chart 1, which is "Nonfinancial Sector Credit-to-GDP Ratio." In answer to the earlier question, you said that the cross-country evidence on this was all over the map, and that does not gibe with what I understood the cross-country evidence to be, which was that this line is basically trending up across the developed economies. So it looks very similar actually.

MR. LEHNERT. Sorry. I meant the cross-country evidence on the level. I thought that Vice Chairman Dudley was asking, is 2.5 a magic number? I mean, this number is much bigger in some countries and much smaller in other countries.

MR. BULLARD. Okay, but the picture would look the same.

MR. LEHNERT. Yes.

MR. BULLARD. It has always been trending up, I guess. The developed world has always been trending up, is that right?

VICE CHAIRMAN DUDLEY. The tricky part about this is if you have a secular trend of more intermediation, then this is going to be an upward-trending number, and so the degree of intermediation in a financial system really is important in terms of what number you get.

MR. BULLARD. When people showed this picture to me over the years, I always said, well, this was financial market deepening, and good things are happening in the intermediation sector. It didn't pan out so well later.

MR. LEHNERT. Well, and presumably by analogy, then, the fact that it's now falling for the household and business sectors is—

MR. BULLARD. Yes. Okay, thanks.

CHAIRMAN BERNANKE. President George.

MS. GEORGE. Thank you, Mr. Chairman. I just wanted to make a comment on the financial stability report. I continue to find a lot of value in this, and I think particularly as we look at these trends in a low interest rate environment, I would take no exception to the conclusion that right now imbalances are not obvious. But just thinking back to how we thought about land values in the 1980s, in the late 1990s and early 2000s, as we watched banks begin to concentrate in commercial real estate and even some of the subprime exposures, the point at which to know when to take signal from some of those things is very difficult, notwithstanding supervisors and others looking at them. So I think as you continue to monitor this, as we get into December and beyond, looking at where these trends are going will be very important.

CHAIRMAN BERNANKE. Thank you. Any other questions for our colleagues? [No response] Okay. Seeing none, on the agenda, we have an opportunity for participants who want to raise questions or issues related to financial stability. And Vice Chairman, if you'd like to start off.

VICE CHAIRMAN DUDLEY. Thank you. Governor Yellen and I were in Basel over the weekend, and I have to say that there was a pretty strong sense of unanimity that what the ECB did was essentially the best that they could accomplish, given the various constraints under which they were operating. The fact that the purchases could be unlimited means that the program has the potential for actually being an effective backstop, and the fact that the ECB will be pari passu with other bondholders is important because it really will reduce the pressures on private holders. So in effect, there may be private holders, if they view this as credible, who will actually want to invest in these sovereign instruments for a carry trade because the yield curves in these countries, of course, are very, very steep.

There's also a bit of carrot now to incent proper actions by the government. So if you do the right thing, we will intervene and we will hold down your debt service cost. And I don't think there was that carrot before, so I think that's pretty significant. I think that the ECB has essentially put on the table something that could take the risk of an interest rate-debt service-fiscal deficit spiral a bit off the table as long as the countries do the right thing. And in addition, if these purchases do, in fact, materialize, I think this does push you in the direction toward further fiscal union. After all, the ECB is backstopped by the entire euro zone, so such purchases will increase the joint and several nature of the union. And finally, I thought the other thing that was noteworthy about the ECB action was that it was a 22 to 1 vote, with only Weidmann of the Bundesbank dissenting. Given the fact that the German political leadership, at least for now, seems to be supporting the ECB actions, this means that the Bundesbank's opposition is somewhat marginalized at this point. So that's the good news.

Despite this, I don't think we should kid ourselves. I think the situation remains very tenuous despite the ECB's supports. I'd be, probably, slightly darker than Steve's comments on this. Several issues worth highlighting: First, the ECB program would only activate if the countries actually negotiate an MOU with the euro group, and already we're hearing signs that Spain seems to be reluctant or slow in terms of pursuing it. In fact, the Spanish may decide that the backstop might be effective even if they don't seek an MOU. That seems like a highly risky strategy, but it is something that they might decide to do. Second, the program obviously will only continue if they stay on the program. And, third, it's going to take a while for this all to be implemented because the MOU has to be negotiated with the euro group, and all of the finance ministers have to agree, and several parliaments actually have to approve the MOU. So this idea that this is going to be happening very, very quickly—I think the market is probably a little bit ahead of itself in terms of how quickly this will come into play.

Other issues—the ECB program will not necessarily crowd in investors, because it's not clear how long this is going to last. So you might buy things, but you still have quite a bit of risk. You still have a very bad feedback loop from the austerity programs to the economy, to fiscal performance, and the state of the banking system. This doesn't take any of that off the table, and there's still no road map as to where we're actually going in terms of the ultimate destination: What does greater fiscal union in Europe look like? So this is a very important thing that the ECB has done. I think they did the best that they could possibly do, and the good thing is they put the problem back in the lap of the governments, where it belongs. They have done what they can do now, and now it's up to the governments to decide, both in the core and in the periphery, if they're going to go along.

The basic model, though, of this whole situation hasn't changed. Countries have to show they're on a sustainable path to regain market access. The core countries are unwilling to be explicit about the level of support because of fears that this will undermine the effort. The constitutional court decision in Germany today, which was actually mostly positive, affirmed that the German commitment is limited to €190 billion—that's it, and so that's sort of significant.

I think the unwillingness of the German Constitutional Court to be explicit does create uncertainty that makes progress more difficult. So we do still have a long way to go, and we don't have big, solid backstops to absorb shocks or support confidence. The ESM–EFSF resources are still very much too small to credibly backstop Spain and Italy, and the ECB support may be too uncertain as to its sustainability. So it's progress, but there are still a lot of questions on the table.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. Thank you for the financial stability report. Like President George, I do appreciate the monitoring that you're doing in this area. I just had two quick questions. They both relate to money market funds. We've had an SEC proposal that wasn't proposed, and I was wondering about your perspective looking at Europe, where there's more than $1 trillion of money market funds and they have a mix of floating and fixed NAVs. I don't know how much time you spent looking at the European money market funds, but I'd be interested in your perspective on the industry's concern with the floating NAV, which seems to have been successful in stopping forward movement. And then the second question is, given that they have both floating and fixed NAVs in Europe, and the deposit rate went down to zero, is there anything to infer about interest on excess reserves from the European money market fund experience with the deposit rate going to zero?

MR. LEHNERT. Are those questions you'd like me to answer? [Laughter]

MR. ROSENGREN. If not here, at another time.

MR. LEHNERT. Very, very briefly, and I certainly don't approach your expertise in this area, we've long maintained that the redemption of par, what you call the fixed NAV, is useful in certain circumstances. There are certain elements of the U.S. tax code and other things that make it useful. But basically, at the end of the day, it's just a safe place to put your money, and if it floats up and down a bit, it's not the end of the world. And, of course, the European experience highlights that, although presumably their tax treatment might be slightly different. Then what's happened to European money markets since the deposit rate went to zero? It's maybe still a little early to tell what the long-run effects are, but the initial wave of reports is that there hasn't been an implosion of the money markets.

MR. POTTER. One fund closed. The Bank of America–Merrill Lynch fund closed.

MS. LIANG. I guess I would just add that even at current rates, the proportion of U.S. funds that are waiving fees is really quite high, so the implications of further reductions in money fund rates could have effects. Some ballpark estimates—they are not precise—is that about 70 percent of U.S. funds are waiving their fees at this point—that's a pretty big number.

CHAIRMAN BERNANKE. Okay. Why don't we take a break for lunch? When we come back, I'll talk briefly about the experimental consensus forecast, and then we'll go to the economic go-round. Why don't we reconvene at 1 o'clock?

[Lunch recess]

CHAIRMAN BERNANKE.[6] Why don't we re-commence? Please feel free to finish your fruit or your cookie. I'll provide the entertainment here. [Laughter] I'd like to talk for just a few minutes about the latest iteration of the experimental consensus forecast. You have a handout with that title. It proceeded in the same way as in previous iterations: The staff sent out a preliminary Tealbook forecast about a week in advance and received your comments. We also had the benefit this time of having the SEP. So using all that, we came up with the forecast that's shown in table 1 on page 1, and which is diagrammed in exhibit 1 on page 4.

[6] The materials used by Chairman Bernanke are appended to this transcript (appendix 6).

Like the Tealbook, this forecast or projection is conditioned on no change in policy. That is, it's conditioned on the August policies of continuing the MEP and late 2014 guidance. Generally speaking, the data are quite similar to the July–August consensus, which is shown immediately below. One exception is the 2013 real GDP forecast on the very first line, 2.2 percent, which is a little bit weaker. That was not inconsistent with the comments that came on the first draft; most people either saw the near term as being a bit weaker or about the same. But I want to come back to that number in a moment. The unemployment and inflation numbers are pretty similar, and if you care to look at the figure, you'll see that the trajectories are very similar obviously, particularly relative to the standard errors.

Like last time, we also looked at the consensus forecast under alternative policy assumptions, and that's given in table 3 on page 3. Under each variable, the first line, the status quo is, again, the same as the consensus forecast in table 1. That's the forecast assuming the August policies continue. The subsequent lines include, first, a change in the guidance to mid-2015, so simply a mechanical moving out of the interest rate path to mid-2015, and then subsequent additions of a $750 billion or $1 trillion LSAP program. So that gives the alternatives. The differences are consistent with the FRB/US analysis; I'll come back to that point as well. And exhibit 2 shows the paths for the federal funds rate, the unemployment rate, and inflation under optimal control, under the no-policy-change consensus forecast in red, and then the alternative policies provided in table 3.

Now, this time an issue came up, which was less of a concern last time, but it raises an important question that I think the subcommittee is going to have to look at, which is that, of course, the SEP is conditional on each person's view of optimal monetary policy. And in this case, if you turn to table 2, which shows median forecasts in the September SEP, you'll see the

SEP is broken into two categories: all participants and participants who assume further easing. A majority of people submitted a forecast in which they assumed that the guidance would be advanced to 2015 and that we would undertake additional asset purchases.

So the SEP submissions actually assume that change in policy. So then the question is, how do you get from those SEP projections back to the no-policy-change baseline? And what the staff proposed, and what they did, was basically they took these policy differentials that are in table 3, and they subtracted from the SEP results to get the baseline. And to the extent that those differentials are not accurate or are different from what people expect, then that will, of course, create some noise in the baseline forecast.

So I raise this for a couple of reasons. The first is that we need to think about—and we talked about this last time—whether the consensus forecast we would want to release would be the pre-meeting status quo policy forecast—I think President Lockhart suggested that last time—or the postmeeting inclusive-of-the-action forecast, or both. We could consider both; I think we need to discuss that. If we do both, then we will have to figure out how to make sure people are comfortable with both the before and the after, if you see what I'm saying.

For this meeting, I think it will not be very much of a problem. What I had proposed to do is, as was given to you earlier on, in item 5 after the policy decision tomorrow, I will ask you whether you are comfortable with the consensus forecast inclusive of the policy action. And if we do take policy action, then this whole issue will be irrelevant because we'll be looking at the policies assuming the further easing—at least for those participants who submitted that. But I just want to flag this point and note that we are planning a discussion in October of this whole project, and certainly one of the issues we'll want to discuss is whether or not we want to look at ex ante, ex post, or both forecasts, and how we would best extract that information. So, again, tomorrow after the policy decision, I'll ask you if you are comfortable with the consensus forecast, including whatever policy decisions we make; are comfortable, with reservations; or have a very different view. And I'll ask you, if you have a different view, to briefly state what that difference is. Any questions or comments? Vice Chairman.

VICE CHAIRMAN DUDLEY. You have this issue that the SEP has some people who have no change in policy; others have changes in policy. That's going to still be an outstanding issue going forward. Do you have any thoughts on how we would—

CHAIRMAN BERNANKE. Well, that's what I'm raising—we have to figure out how to deal with that. One possibility would be to specify—

VICE CHAIRMAN DUDLEY. A, B, and C?

CHAIRMAN BERNANKE. Well, yes—I suppose. If we're going to do the ex ante, before-meeting projection, then everybody would be asked to make a projection conditional on the policy prior to the meeting, and the forecast could be used to say, "We thought this was unsatisfactory. That's why we took the action we did today." Alternatively, we could ask for a forecast conditional on one or more policy actions. But that's an issue that this particular exercise has made clear, and I'm just flagging it for discussion by the subcommittee.

VICE CHAIRMAN DUDLEY. It's interesting to see the difference that people submit in terms of the policy, because you actually find out what people think about how efficacious the policy is.

CHAIRMAN BERNANKE. Well, of course. That's right. That's certainly one of the benefits of doing that. But everything that we are considering here also has the cost of multiplying the number of projections and forecasts we're asking people to do, and that's something we need to take into account. President Lacker.

MR. LACKER. You mentioned parts of the consensus forecast process. We're asked to provide a forecast conditional on a certain policy path, and I'd urge the staff and all of us to give some thought to what that ought to mean. As I read the instructions, I thought of four different interpretations of that. You take as a given that what we're trying to do in writing down a forecast is to write down the mean of a joint distribution of the economy and policy. Well, if you ask us to submit a forecast conditional on a certain policy path, are you asking us to replace our reaction function with one that's fixed at that path unchangingly, and averaging over that? What do all of the shocks have to be? What's the most likely outcome that delivers that as the policy reaction—what economy is weak enough to justify that policy? That's a different question. Or, do we take our reaction function and add-factor it so that it delivers that policy as a mean? There's a bunch of different ways you can think of doing that, but we ought to be precise about it.

CHAIRMAN BERNANKE. Of course—we'll have to be precise. These are complexities. One possibility would be to have everybody, again, assume appropriate monetary policy and deliver that joint distribution that you're describing; and then, try to see if there's a center of gravity of that, which looks like the consensus; describe that consensus; and then describe those who differ and qualitatively how they differ. So that would be one approach. Another approach could be, for example, to ask people to use a specific reaction function or to specify their own reaction function. President Kocherlakota.

MR. KOCHERLAKOTA. Yes—thank you, Mr. Chairman. I like the idea, in principle, of having a consensus forecast based on status quo policy and then a consensus forecast based on the policy action. I think, though, that in practice, the latter is going to be very challenging, because you could easily imagine that the Committee could come up with a choice of a policy action that they had not considered ex ante. And then it becomes very difficult to know how the timing would work and to get the logistics to work.

CHAIRMAN BERNANKE. No, absolutely. And again, I think Governor Yellen's subcommittee will solve these problems for us [laughter] and bring that to us in October. President Bullard.

MR. BULLARD. Let me just reiterate on this. I do think that the market expectation of the Committee's policy as of a certain date, which encompasses all aspects of monetary policy, is a fixed point that we could rally around. Everyone can give their prognostication based on that. That would give us just one exercise to do. Usually the market expectation is not a long way off. It might be somewhat off, but it's not a long way off, and it would simplify the exercise in my mind and would keep it clearer what we're doing.

CHAIRMAN BERNANKE. That's, of course, what the British and some others do.

MR. BULLARD. Yes.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. Does that address President Lacker's concerns? I wouldn't have thought so.

CHAIRMAN BERNANKE. Not exactly. Only if it's approximately right.

MR. EVANS. Yes—right.

CHAIRMAN BERNANKE. Anybody else? President Fisher.

MR. FISHER. Narayana made the point I was going to make.

CHAIRMAN BERNANKE. Other comments or questions? Again, we will be discussing this at the next meeting. President Evans.

MR. EVANS. Could I ask a question that's a little bit different? It was triggered by some comments that President Fisher made earlier in asking questions, where he alluded to the fact that some people around the table would be, however you put it, more accepting of a higher inflation rate than others, or whatever. And in exhibit 2 on page 5, this question comes to my mind, which is, there is an optimal control path that is shown that has inflation rising to—I think it's 2.3 percent, if it's consistent with previous Tealbook-style analyses. I personally don't see anything in this path that's inconsistent with our longer-run strategic approach that we adopted in January, and I just wonder if that's the sense of the Committee or if there's an important divergence of opinion there, which seems to be one of the points that President Fisher might have been raising.

CHAIRMAN BERNANKE. I think we are clear that our objectives are—think of a quadratic objective function. They're symmetrical. There is an increasing marginal cost of being away from each objective. We have a balanced approach, but people will have different models of the economy, and they'll have different weights in their objective functions. So this is obviously not a purely value-fee projection. President Bullard.

MR. BULLARD. Is exhibit 2 something that would be distributed as part of the consensus forecast?

CHAIRMAN BERNANKE. Again, nothing has been decided, but I wouldn't imagine we would want to do all of those things.

MR. BULLARD. So this is just an internal document, like the ones we always use.

CHAIRMAN BERNANKE. Yes.

MR. EVANS. I wasn't asking a question about communications. I was asking more a question about how we interpret our longer-run strategic document, because at various times, we make different comments about these types of outcomes, and it strikes me that there's less agreement on that particular observation than sometimes is given by the words that we use.

CHAIRMAN BERNANKE. I've said in press conferences that it's a symmetric objective and we have a balanced approach, and so on. Anyone else? [No response] All right. Now we come to the main event. Let's start our economic go-round with President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Intermeeting data, I think, have done little to alter the economic picture. We're in a period of sluggish economic growth, clearly. Our Fifth District survey measures, which fell sharply in July, have bounced back to neutral readings now, and the tenor of our anecdotal reports has been middling of late, consistent with reports we've been hearing since the spring. While activity is weak, we're not seeing any signs in our District of a dramatic slowdown around the corner—or a dramatic pickup, for that matter.

I thought it was appropriate, Mr. Chairman, that at our last meeting you took a longer-term perspective by focusing on economic growth over the entire recovery. As you noted, real GDP growth has averaged around 2 percent since the recovery began. I think 2.2 percent is the precise number. We keep seeing swings in growth every couple of quarters around that average. So it makes sense to focus on the longer-run path around which we're fluctuating, rather than just the last quarter or two. At our last meeting, Mr. Chairman, you talked about why growth was so low, and you discussed the spider charts put together by Board economists Greg Howard, Robert Martin, and Beth Anne Wilson. I believe they refer to them as butterfly charts, but I'm not taking a stand on insects here. The main purpose of their paper was to show that advanced economies recover as rapidly from banking and financial crises as they do from other recessions, and I thought they did a pretty convincing job of that. Their charts also show that the current recovery in U.S. GDP tracks quite closely the typical advanced economy recovery from banking and financial crises, as well as the typical advanced economy recovery from housing slumps. The message I take away from their work is that we shouldn't have expected to do much better than what we've experienced, and I think that's consistent with the message from some other research along the same lines. Now, the authors don't focus on the notion of a gap, however. And for many people right now, the motivation for further stimulus is that the relevant gap is quite large.

I was quite pleased to see the memo from Bruce Fallick and Jeremy Rudd on this subject. It's a helpful, well-organized description of how the staff thinks about and estimates economic slack—lays it out quite clearly. And I think this memo should help clarify our mutual understanding going forward. But I'd like to make a suggestion or two for further clarifying our discussions. My suggestion is that we distinguish carefully between two distinct conceptual notions of slack. One concept is defined by the number to which the unemployment rate would converge in the future in the absence of unanticipated shocks and under appropriate monetary policy. This is essentially what we've referred to as the "longer-run normal rate of unemployment." I think that's what we called it in our consensus statement in January. That's a fine term for it. When people refer to sustainable employment, this is the concept I think of: what the economy is going to converge to several years from now, after the current shocks we've experienced have dissipated and, under appropriate policy, we get back to some trend with no shocks—the mean forecast out there. Now, this number probably doesn't vary much over time because, by definition, the effect of current shocks has faded out by the time the economy converges to this number. In fact, this number might be close to constant over time, or it may vary only with some slow-moving and predictable things, such as the demographic composition of the labor force and the like. So I think when you look at a construct like the NAIRU, the non-accelerating inflation rate of unemployment, it's constructed with this notion in mind. I'll come back to the NAIRU in a minute.

The second concept of economic slack, which I think we should distinguish from this first one, is based on the reference level of the unemployment rate with which it is most appropriate to compare the current unemployment rate for the purposes of assessing current monetary policy. Equivalently, one can think of this just as well in terms of the reference level for output with which it's most appropriate to compare current output for monetary policy purposes. This is sometimes referred to as the "natural rate," although some writers refer to this as the "efficient rate" and reserve "natural rate" for something distinct. But "natural rate" tends to be the term that we've used around the table here and that others have used, and it's what the staff memo uses. So I'm going to stick with that term for this reference rate.

In some very simple models, these two concepts are identical. But in general, they're not the same. Indeed, in our standard, modern, mainstream models, almost all of the shocks hitting the model should affect the natural rate, even if the longer-run normal rate doesn't vary much. Now, not all of the shocks that hit the economy should affect the natural rate. That's very clear in these models as well, and I'll talk more a little bit later about the difference and what kinds of shocks fall in that category. By the way, I'd mention that modern models are all extensions of the Solow growth model that the Chairman referred to at our last meeting. That model is deterministic, nonmonetary. These models are extended to include a role for monetary factors and to include the role of uncertainty and unpredictable shocks to the economy. I think the staff memo would have been clearer if it had distinguished between these two notions of slack, because the estimates they present in this memo—some are aimed at this longer-run notion, and some pretty clearly are aimed at this short-run reference notion. For example, the NAIRU estimates they present are designed to estimate the longer-run normal rate of unemployment, because they deliberately exclude high-frequency factors, but our models tell us that's clearly the wrong benchmark for policy in a world in which the economy is hit by a range of shocks. So my suggestion would be that staff members, when they present to us a gap or a natural rate concept, be clear about what they're trying to present. I'll note here—and I'll come back to this in a second—the discussion we had about adjusting the natural rate for the drought; that's a high-frequency adjustment. But the logic for making that adjustment is really identical to the logic for this reference rate that responds to current shocks. I think it would also aid clarity if we, in our discussions, were mindful of this distinction between these two. The gap between the current unemployment rate and the long-run normal unemployment rate is exceptionally high by historical standards, and that gap clearly represents a tremendous amount of human suffering. And I can understand—everyone should understand—why that would add urgency to the search for remedies to that. But modern macroeconomics is pretty clear about the gap that's relevant for the conduct of monetary policy, and it's conceptually different from the gap defined by the distance between where we are today and where we're going to be several years from now.

So how do you estimate policy-relevant gaps? Well, you need a model because you're talking about a counterfactual; you're talking about something that doesn't happen—it's a latent, unobserved variable. You need a model to be able to extract something like that from the data, and different models, obviously, give you different estimates. The staff memo presents estimates derived from EDO, the Board's New Keynesian dynamic stochastic general equilibrium model. And it delivers an estimate of the current gap of a little under 3 percent, defined this second way, the natural rate way. That compares with the NAIRU-based estimate that the Tealbook provides of about 4½ percent, so you can see that you can get a significant difference there. This illustrates the extent to which the model you bring to bear makes a difference.

So how big is the relevant gap? Well, I've said before—and I think others around the table have said before—that we don't think it's large, and we've tried to describe economic factors that, in theoretical models, would affect the natural rate and so wouldn't add to the gap. So they'd reduce your estimate of the gap. Now, rather than repeat myself—I know that hasn't stopped me in the past—I thought I'd take the opposite tack and talk about what's in the gap. The economy in a model that's taken to the data is envisioned as driven by shocks and other developments. Those shocks all affect the data you see, but not all of them affect the natural rate. So the things that affect the economy, but don't figure into this natural rate, are the things that affect the gap. What could those things be? Well, this depends, obviously, on the model you use to interpret the data, the model you use to extract an estimate of the natural rate, and so determine the gap. Let's take a look at EDO, the Board's DSGE model. Its estimate of the gap is based on the natural rate, as I said, and it's near 3 percent. What would it take for the gap to be that large in that model? Now, I should caution here: What I'm going to say is based on my understanding of the model conceptually, theoretically. I haven't looked at the empirical decomposition, but based on my understanding of what's going on in that model—this is true for a lot of other models as well—you'd have to believe that one of two sorts of things is going on for the gap to be large. First, you could believe that firms have not fully adjusted their prices in response to the downward shift in demand that occurred four years ago. These models are based on the notion of prices being sticky temporarily—that people set prices and, for a time, they're not incented toward, or they're prevented from, adjusting their prices to reflect developments that they're seeing at their doorstep. So this price stickiness keeps prices from adjusting. A fall in demand shows up in quantities rather than prices at first, and then later, as prices adjust, the adjustment shows up in prices rather than quantities. So that's the general mechanism. To attribute it all to that, you'd have to believe that there's an incredible amount of price stickiness in this economy. I don't find that plausible, and I don't think it lines up with other evidence we have on the degree of price stickiness in the economy.

The second class of things you could believe, in order to believe that the gap is large, is that the economy has been hit by a string of large shocks that have not affected the model's natural rate but have affected the economy. And this is what the model attributes the large gap to. What would those shocks be? Well, in EDO, there are only two kinds of shocks that would affect the gap. One is a string of upward shocks to the degree of monopolistic power that firms have in setting prices. Firms are monopolistic competitors. They have a little bit of pricing power, not total, and the amount of pricing power they have is determined by the degree of substitutability between goods. For some reason, goods are less of a substitute for each other now, so firms have more pricing power, and that's why prices haven't adjusted, quantities have, and the gap is high. Alternatively, you could believe that a string of analogous shocks in the labor market has occurred, so that workers have more bargaining power in setting wages and are able to extract a kind of monopoly power from the firms they work for. Now, I don't have direct observations on any of these. You infer these from the model and the data. You take the model as given, you infer these kinds of things. But those don't really match up, in my mind, to the kinds of anecdotal stories you hear from people. You just don't hear about firms having a lot more pricing power than they did four years ago, and it certainly doesn't seem consistent to think of workers as having a lot more leverage now, either. So I find both of these implausible. Now, as I said, this is based on my understanding of EDO; my understanding of how the theoretical model is built—that is well documented. In that EDO model, in the memo results, they didn't do the decomposition. They didn't show us how much of the gap is due to sticky prices left over from 2008 shocks, how much is due to monopoly power shocks, how much is due to wage pricing shocks. I said they don't seem plausible, but the right way forward for us, in talking about these things, is to put some estimates on the table and do the decomposition. We have a working group under way that works with a set of these models. There are other DSGE models—Philadelphia, Chicago. What's the other one?

PARTICIPANTS. New York.

MR. LACKER. New York. I forgot New York. And there are others around the System. I know that Atlanta operates a pretty elaborate model as well. So each of these taken to the data would give you a different estimate of the gap, and they'd give you a different decomposition of what the gap was about. We'd be able to look at those, if we had them in front of us, and say, "Well, attributing the gap to this is persuasive to me. It matches up with what I think is out there," or, "This reason for the gap to be large isn't persuasive to me." And we could have a discussion that goes beyond, "I think the gap is big." "No, I think the gap is small." "No, I think the gap is big." "No, I think the gap is small." I think we could make progress by putting the cards on the table, by putting some more-explicit analysis on the table.

So that's my suggestion for improving our discussion of the gap going forward. As I said, the estimates of the 3 percent gap in EDO seem implausible to me compared with factors that I've talked about that are likely to affect the natural rate rather than the gap—things like the labor market, skill problems, the housing overhang, and policy uncertainty, which aren't captured by the models. We could have a debate then about what is in the model or not. This is what goes into my thinking—that we shouldn't expect much from monetary policy now.

Moreover, we might be pretty close to where the policy-relevant natural rate is right now. Thank you—I took some extra time here. I appreciate it. Thank you very much, Mr. Chairman.

CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN DUDLEY. I don't really understand why the DSGE model should be particularly relevant to the current set of circumstances, given that this is a financial shock, a huge financial shock, and my understanding is that DGSE models are very rudimentary, if they have anything, in terms of the financial sector. To go to the DSGE models as a source of determining the natural rate versus the NAIRU and the size of the gap seems a little bit "off the reservation" relative to the source of the shock. So I'm just curious what your reaction is.

MR. LACKER. Sure. Let me say two things to that. The first is that progress has been made in putting the rudiments of a financial sector in these models. The New York model is a leader on that.

VICE CHAIRMAN DUDLEY. But we're still in elementary school.

MR. LACKER. Right. The second thing I'd point out, though, is that if we're going to think about the data we see, draw conclusions, and act on it, we're using either an explicit model or an implicit model. There's no avoiding that. Otherwise, what we're doing is gibberish. An explicit model has the advantage of exposing all sides of the reasoning process to scrutiny by others. You can say, and it's perfectly legitimate to think, "All right—yes, this factor that I think is important is not in this model," and I just did that with EDO. I just said, "Look, it doesn't have a very articulate labor sector"—but we can debate that, and we can look at the magnitudes and talk about that. So I think it's a vehicle for analysis and discussion that crystallizes our thinking, that pins things down, but I don't think it's constructive to say, "X isn't in the model. I have a free pass to say whatever I want." I just don't think that's constructive. I know that's not what you were advocating.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. Thank you, President Lacker. You're a perfect straight man for me because I'm going to be rather brief [laughter] to preserve time for the main event. Reports from my District contacts were very little changed from August. Economic expansion remains positive but very modest. Just a couple of comments from contacts. First, housing-sector contacts and several of my banking directors reported that residential real estate activity in general is clearly improving. Prices have firmed in many areas, sales volume has increased, and permitting is rising. Purchase mortgage applications have increased recently, and refinance activity remains positive. I have also seen data suggesting that the recent increase in purchases is being driven primarily by mortgage-financed homebuyers rather than cash investors. Second, a director from a large management consulting firm offered the view that a number of his firms, very large corporate clients, have resigned themselves to a 2 percent growth world, and that major actions these businesses might take to accelerate their growth are largely on hold. We heard a similar theme from several contacts. And, third, inflation and rising business costs are not much of a concern among our contacts. My director from the country's largest home-improvement retailer reported that suppliers are not asking for price increases in this environment.

Let me shift to my Bank's assessment of the national economy and outlook. It has become pretty difficult, in my view, to reject the view that the economy has been on a roughly 2 percent growth trend for most of the recovery. Maybe I'm a little slow, but the recognition has gelled in my thinking, just in the last few weeks, that this is the prevailing reality. Based on recent estimates, this may even overstate the immediate reality. My outlook for GDP growth continues to show only modest improvement on this trend over the forecast horizon. In particular, beyond this year and next, I remain less optimistic about the pace of GDP growth than the Tealbook. With respect to employment, my baseline outlook has been a continuation of the trend of roughly 150,000 per month that has prevailed over the past two years. This pace would be sufficient at current participation rates to make continuing but modest progress on the unemployment rate. However, last week's job report makes it pretty clear that employment growth has fallen short of the 150,000 trend over the past four months. Even though four months amount to a small sliver of time, I am concerned about the lack of any sustained progress on the unemployment rate since the beginning of the year. It is getting harder to rule out the possibility that returning to the scenario of 150,000 jobs a month is at risk. My perception is that the well-known uncertainty factors, including those associated with various downside risks, are contributing to some of the recent softness in the data. I have no argument with the SEP bias that GDP growth risks are weighted to the downside, but I don't rule out that these uncertainty drags could dissipate and that there is some upside potential. For instance, some of the incoming information around housing and Europe has been mildly encouraging, and it's plausible that if the major sources of uncertainty—notably, the fiscal cliff and European situation—are resolved favorably, or more or less favorably, in a few months, the outlook actually could be brighter. So it strikes me that this environment is not as clear-cut as the situations that we faced on the cusp of LSAP1 and LSAP2. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Mr. Wilcox, did you want to add to the conversation?

MR. WILCOX. Yes. I don't have a detailed response to President Lacker's comments, but I thought I might just offer a few observations. Sometimes I'm in sympathy with many of the points that President Lacker makes. I think it's important, though, to state that we take it as our remit to advise the Committee to the limit of our ability to measure the economy, to estimate and understand the economy, to observe economic processes. We think it's critically important not to do more than that, and we're profoundly aware of the extent of our ignorance and the ignorance of the macroeconomic profession at large, regarding key questions about how the macroeconomy works. I'm reminded of a comment that Larry Summers once made in quite a different situation, in which he said, "You know, economics is an interesting field. I doubt that when astrophysicists get together, they debate the fundamental validity of the laws of gravity. And yet what we as economists do is, we have profound uncertainty about questions that are as fundamental as the laws of gravity." We on the staff do make every effort to distinguish short-run influences that we can identify. For example, we have adjusted our reference level of the unemployment rate in light of influences that we can identify and estimate, stemming from emergency unemployment benefits and from the quality of functioning of the labor market. We have adjusted our measure of the gap between the actual unemployment rate and the reference, or natural, rate of unemployment for those kinds of things. But beyond that, we confront the real world in which data are imperfect, theory is deficient, policymaker and staff bandwidth is limited, and there are a lot of profound and fundamental debates to be resolved.

With regard to EDO, it is a state-of-the-art DSGE model coming directly out of the intellectual tradition that President Lacker refers to. It's part, but only part, of the intellectual base that we consult in the course of putting together our analysis that we provide to the Committee. Now, whether the empirical properties of that model are plausible or implausible is a little difficult for me to say. They are what they are, and they're derived by an effort to work directly in that intellectual tradition. We have pursued a diversified, multimodel strategy, which we think provides our analysis with a greater robustness than would be the case if we had a single model or a single-intellectual-tradition strategy. So I'm in sympathy with many of the points that President Lacker raises, but I think we need to recognize that the macroeconomic profession has a long way to go before we can deliver the kind of clarity and certainty that it seems to me is implicit in much of your remarks.

CHAIRMAN BERNANKE. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I appreciate Dave Wilcox's comments there, and I'll have a few comments on the slack memo at the end here. Let me talk for a minute about the Eighth District economy, which continues to expand at a modest pace. The drought in the District has been especially severe and is having an important effect on agriculturally based businesses. I generally agree with the Tealbook analysis of the effect of the drought on the macroeconomy over the next couple of quarters. District labor markets are improving slowly. The District unemployment rate, based on 16 District MSAs, has continued to decline this year and is, according to the most recent data, about 7.5 percent, noticeably below the national unemployment rate. Employment growth in the District has been slow, just a touch better than the national data, according to the most recent observations. District real estate markets have improved during 2012. Data on home sales for District MSAs, for instance, are up by a healthy margin compared with 2011. Specifically, year-to-date home sales are up almost 13 percent in Louisville, 7 percent in Little Rock, 10 percent in Memphis, and 16 percent in St. Louis. Similarly, building permits for single-family homes year to date in 2012 versus 2011 were up 42 percent in Louisville, 14 percent in Little Rock, 46 percent in Memphis, and 23 percent in

St. Louis. So I think that the housing part of the equation is moving off the bottom in 2012, and I find that encouraging.

Nationally, I view the macroeconomy as being in a sluggish economic growth mode, but for a variety of reasons, I do not think the current constellation of data readings is one that should trigger outsized monetary policy action. I view the U.S. economy as being on a path not too different from the one suggested in the work of Carmen Reinhart and Ken Rogoff as cited by President Lacker. They noted that post-financial-crisis or post-bubble economies tend to grow relatively slowly for a long time. Our economy clearly suffered through a collapse of a housing bubble, along with an associated financial crisis, so it is not really that surprising that the economy is following a path similar to the one experienced by other countries that have been in a similar situation. In particular, the notion of a rapid return to the pre-crisis, bubble-influenced real GDP growth trend seems quite unrealistic according to the international cross-country evidence. This, to me, is the leading hypothesis for our current situation. I am concerned about the global slowdown and that, fed in large part by ongoing recession in Europe, this is affecting and will continue to affect U.S. multinational corporations. These effects are quite apparent in my discussions with business contacts in medium and large firms in the District and across the nation. Many are reporting troubling or worrisome movements in revenue and volume data during recent months. While this bears watching, I do not think it is yet at the point where I foresee an especially severe impact on the U.S. Some of this is certainly to be expected when the pan-European economy, which is actually somewhat larger than the U.S. economy, is in recession.

I see U.S. inflation as subdued but generally close to target, unlike the summer and fall of 2010, when nearly all measures of inflation were low and on a downward trajectory. Again, this bears watching, but in my view, a threat of continued disinflation and possibly eventual deflation has not materialized, at least so far. Inflation expectations are, by our own description, stable. Five-year TIPS-based expected inflation was about 208 basis points yesterday. This, again, is not the situation of 2010, at least so far. In addition, the five-year TIPS real yield of about minus 145 basis points is considerably lower than in 2010, suggesting that monetary policy may be much easier today than it was at that juncture. In addition, I do not see financial stress as being particularly high at the current moment. The St. Louis Financial Stress Index is showing a relatively tame reading. Of course, many factors could increase financial stress, but as of now, those events have not occurred and, in fact, may not occur.

I think it makes sense to wait and see what Europe can deliver during the fall. As I've told all of you before, I've become more pessimistic on the medium-term European prospects during the summer, as I have come to doubt that Europe has the type of either informal or formal institutional arrangements to deal with a crisis of this magnitude. Still, I think the jury remains out on that issue, so it would make sense for us to wait and see what the Europeans do, and see what happens. Certainly, recent declines in Spanish and Italian yields across the yield curve for government debt in both countries have been impressive and substantial, even if the medium- and longer-term outlook for Europe is questionable. I am concerned that the ECB is not really easing aggressively in order to mitigate the euro-area recession. Indeed, the ECB is preoccupied with selective debt purchases on a basis that requires some conditionality, which means that they have to wait for the country to react to their offer. This throws off the timing of the relationship between the normal business cycle and monetary policy. So that's keeping the ECB from acting, which makes me worried that the U.S. action could exacerbate the recession there by strengthening the euro. And indeed, the euro has been stronger in recent weeks. You might say we worry only about the U.S. economy, which I think is very true and very relevant, but this could end up feeding back to the U.S. in a detrimental way if we make the European situation worse.

Longer-term interest rates in the U.S. are already very low. Ten-year Treasury trading in a recent session was around 170 basis points. That's extremely low by recent historical metrics. Longer-term inflation expectations are in excess of 250 basis points, depending on which measure you use. That implies negative real yields over a 10-year horizon. That's an extremely long horizon to have a negative real yield. I think the United States can benefit from the lower yields that we have in place right now. We can benefit from the flight to safety that has driven capital out of Europe, much as the United States did during the 1997–98 Asian currency crisis. Also, equity markets are at recent highs—four-year highs, if I'm not mistaken. This seems to indicate among investors a certain confidence in the future of U.S. economic performance despite an ongoing worldwide slowdown, and I think the jury is still out a little bit on whether the United States can be the strength in the storm here or whether we're going to get pulled into the global slowdown ourselves. Obviously, there are detrimental effects from the rest of the world, but there are also offsetting flight-to-safety effects in the United States. So I think we could afford to see how that plays out for a few months here going forward.

Labor markets in the U.S. are improving, although in a halting and uneven way. It is sometimes noted that the national unemployment rate has not improved during 2012. I might remind the Committee that this was also true in 2011. We had 9.1 percent unemployment in January of 2011. As of August 2011, we were also at 9.1 percent. However, today's unemployment one year after that is 8.1 percent, 1 full percentage point lower. That's about as good as we can do in this game, about as good as we can do in one year's time. The U.S.

unemployment rate has rarely, if ever, dropped this much in one year during the past 25 years. This improvement, of course, occurred unevenly, but it did occur nevertheless and from a starting point last year at this time in September that looked considerably darker than today's outlook. Some might say we didn't take action last year, but we took action through the maturity extension program. That program is still in place and still on the table.

In summary, as always, there are many ongoing developments that bear watching, but I think that the current readings on key aspects of the economy do not argue for outsized monetary policy action at this particular juncture. I'm not saying I would never support it, but I don't think that this moment is probably the right time.

A few comments on the slack memo. I do appreciate the memo, and I think it did a great job of outlining the approach to the slack issue that has been taken by the staff for, I believe, many years at the Fed. I thought it was accurate and outlined the issues very well. The memo, to me, suggests that the "get-serious DSGE approach" shows exactly how complicated this concept really is when you try to get down to it. Whenever you're trying to fix something, it's good to know what you're trying to fix. And the great thing about the New Keynesian model is, you know what you're trying to fix. You're trying to fix the fact that there are sticky prices out there, and you can improve welfare in that model in a certain way by certain types of monetary policy actions. But different assumptions that you might make inside the model are quite subtle, and they can imply different welfare outcomes—that is, different amounts of utility that actually get delivered to households. I think that there's no substitute going forward, that the Committee just has to take a stand on these complicated issues and we have to roll up our sleeves and say, "What is it that we think we need to do?" and "What is it that we want to fix?" The problem is, because of the subtleties inside these models, what we learned from the models is that you can inadvertently be doing more harm than good, depending on what's actually going on in the real world and depending on which assumptions are really the ones that make the most sense. I think there's a very clear core idea, and you don't have to read the whole literature to get at the core idea. The core idea is that the flexible price level of output is a volatile object. Even in an economy that had no frictions whatsoever, there would be all kinds of shocks, and that level of output, which would be a Pareto-optimal thing, would be moving around all of the time. The actual level of output that we observe is probably not that level of output, and therefore there may be scope for a policy action. But in any event, that volatile flexible price level of output is not going to be a smooth trend the way we traditionally have thought about it in macroeconomic circles since the 1950s and 1960s. Most of what we try to do when we think about potential output and measures of slack is to get a smooth trend. I don't think that that's supported by the modern macroeconomic literature.

The memo also makes it clear that there's tremendous uncertainty about estimates of slack, even if you're willing to swallow other assumptions about the statistical models or the economic models. As I've emphasized in the past, even if all you want to do is forecast, and you don't care about all of the theoretical issues, the relationships between the slack measures and the actual inflation outcomes are questionable themselves and are weak and, I think, have gotten weaker over time. I've talked about slack many times here, but I do think that, going forward, it would behoove the Committee to put a clear model on the table. We can argue about whether those assumptions are the right ones, whether we like them, and whether we think we can bring other evidence to bear on the particular assumptions. And we can get it clearer in our own heads how we think we're helping matters with our policy.

I also thought it was very interesting in the memo—I've often wondered about the term "NAIRU." The memo makes it clear that the "A" no longer belongs in "NAIRU," and in fact, the "N" doesn't belong in "NAIRU" either—so just "IRU." It's just "IRU" at the end. The "A" stands for "accelerating" and staff members make it clear that they've had to take that part out because it wasn't working very well over maybe quite a long time period. So I thought that that was interesting. Maybe we should quit using the term, since the acceleration part isn't in there anymore. Thanks a lot.

CHAIRMAN BERNANKE. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. The past nine months remind me a bit of Samuel Beckett's play *Waiting for Godot.* Rather than waiting for Godot, we are waiting for the labor market recovery. And like Godot, the recovery in the labor market continues to elude us. In the Beckett play, the characters seriously consider suicide as their best solution to the seemingly endless wait. I do hope that tomorrow we arrive at a better solution. [Laughter]

Unfortunately, last month's labor market report was quite consistent with my submission for the experimental consensus forecast. I had a more pessimistic outlook for the next 18 months than the consensus forecast, and it assumed that we would not see robust employment growth or a significant change in the unemployment rate by the end of the year—or, for that matter, the end of next year—without further accommodation. The modest employment growth did not surprise me, although I may not have sufficiently considered the possibility of the further declines in the labor force participation rate that were a striking feature of last Friday's employment report, reducing the unemployment rate but for the wrong reason. One of the distinctive features of this recession and recovery has been the percentage of the unemployed who remain unemployed for greater than 26 weeks. Unlike the deep recession in 1982, in which there was a quick recovery and, as a result, a relatively small increase in long-duration unemployment, this recession has had a weak recovery, resulting in more long-duration unemployment. Work being done by the staff in Boston that decomposes the Beveridge curve by duration of unemployment finds that the shift in the curve is primarily generated by workers who suffer long-duration unemployment. Faster growth in the economy would likely mitigate some of this problem.

While some have attributed the slow recovery to a deleveraging process, I would put less weight on that argument. Consumption and business investment have not been the laggards in this recovery. Rather, government spending and housing account for much of the unusual weakness. In fact, if you exclude housing and government spending from GDP for this recovery, it looks much like the previous two recoveries. The unusually weak government spending is, in part, a result of the state and local governments pulling back in response to greatly diminished revenues, a direct consequence of the depth of the recession and the weakness of the recovery. Many were prepared for a revenue shortfall, with funds accumulated in their rainy day funds, but this recession quickly put most rainy day funds underwater. Housing is usually a driver of most recoveries but has been absent for much of this recovery. However, since the onset of the housing bust, the population has grown, per capita income has grown, interest rates are low, and prices are more affordable, resulting in tentative signs of a housing recovery. This is a propitious time for considering additional stimulus to housing. If homebuyers feel that house prices are on the rise—as many indicators suggest and the Tealbook forecasts—and that mortgage rates will remain this low only temporarily, we may start to get new homebuyers to commit before rates and prices rise.

It is important to note the significant downside risks we are still facing. While there have been some positive announcements about financial support out of Europe, the underlying solutions still require political support. Domestically, while most are aware of the dangers of a fiscal cliff, the positive solutions still require political action. Should either of these risks materialize, we will need to consider a further array of tools: possibly expanding QE even further, using asset purchases to target long rates, or providing more commitment in our guidance. An important addition to these tools might also be an expanded set of discount window actions. The staff memo on this provides a good road map to possible ways forward. They include a variant of the Bank of England program, a mortgage program that would provide low-cost funding for banks to finance mortgage loans—particularly to those parts of the mortgage market that have been slow to recover, and programs that might require Treasury support to reduce the credit risk entailed on certain types of lending. While some of these tools are likely to be most useful during a crisis where lending markets are disrupted, some could be implemented even in the current rate environment. I would encourage the staff to continue to search for creative ways that we can support those areas of the economy that are still troubled. As further progress is made, it may be worth discussing, either as an additional tool if the recovery continues to be quite slow or as a contingency plan should some of the tail risks materialize. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Williams.

MR. WILLIAMS. Thank you, Mr. Chairman. During the intermeeting period, the economic data have confirmed that the economy remains stuck in low gear. Like the Tealbook, I expect only modest GDP growth in the second half of this year. Clearly, the economic recovery hasn't been able to gain traction in the face of a variety of headwinds. These include household-sector deleveraging, tight credit for many potential borrowers, fiscal retrenchment, and global uncertainties. Given these headwinds, absent further monetary policy accommodation, I would expect sluggish growth and no meaningful progress toward our employment mandate until 2014. Indeed, when judged on a policy-consistent basis, my outlook is somewhat more pessimistic than the Tealbook forecast and consensus forecast, with slower GDP growth and a higher path for the unemployment rate.

In gauging the medium-term outlook for the economy and the stance of monetary policy, I find the Kalman-filter model that I developed with Thomas Laubach to be a useful tool. After this morning's discussion, I'm a little nervous about going into the Kalman filter, but I'm assured that Thomas is ready with a white board to answer any technical questions regarding our model. But this model seeks to distinguish between transitory and highly persistent supply and demand influences on economic activity. In response to President Bullard's earlier comments, I would stress that in our model, we do not impose any restriction that potential output growth is smooth. We let the data speak to that. The highly persistent influences on demand can be summarized by what we call the natural rate of interest. In the model, a highly persistent reduction in demand lowers the natural rate of interest. And I think importantly for thinking about the stance of monetary policy and a number of issues around that, our balance sheet policies should boost the natural rate of interest, all else being equal, in this empirical model. So, influenced by Board staff research that highlights the information content of gross domestic income along with gross domestic product, I've estimated a modified version of the Laubach–Williams model using both GDI and GDP. The current estimate of the natural rate of interest from this model is about minus 75 basis points. The current real funds rate, therefore, is only about 1 percentage point below this estimate of the natural rate. This implies that the current extent of monetary accommodation, including our balance sheet policies, has only modestly exceeded the severe headwinds that we're facing in our economy.

Given my forecasts for subdued economic growth and very little progress on the employment mandate over the next few years, my SEP projection assumes considerable additional monetary policy stimulus. In particular, I assume a new program of open-ended purchases of Treasuries and MBS. They expand the Fed's balance sheet by about $1 trillion over the next year or so. And with this stimulus, I expect a faster recovery, with real GDP growth of 2½ percent next year and 3¼ percent in 2014, with the unemployment rate edging down to 7.9 percent at the end of next year and 7.3 percent at the end of 2014. I see the risks to this outlook as skewed to the downside. Another bout of brinkmanship around the fiscal cliff seems likely, if not inevitable. The problems plaguing Europe also remain daunting, with considerable risk to our economy if the financial crisis intensifies. Here I would just echo the comments made earlier by Vice Chairman Dudley. I share those views and was somewhat more pessimistic than perhaps the Tealbook's description of recent events in Europe. The bold program that the ECB has announced will certainly buy some short-run relief, but the underlying problems remain: a lack of political federalism, an unsustainable fiscal outlook, and disparities in economic competitiveness across Europe. So, in summary, the ECB's actions may serve as a useful bridge loan. I hope it is not a bridge loan to nowhere.

The fiscal cliff and the crisis in Europe are not just risks to the outlook; by increasing uncertainty, they also seem already to be adding to the factors slowing our recovery. It seems everyone I talk to stresses that uncertainty is holding back hiring and investment. Indeed, uncertainty appears to have virtually paralyzed some businesses, prompting them to postpone capital spending and delay payroll expansions. So a key question for monetary policy is whether this rise in uncertainty should be viewed primarily as a shock to demand, which lowers both output and inflation if not counteracted by additional monetary policy stimulus, or as a shock to supply, such as the drought, which lowers output but boosts inflation. Recent theoretical and empirical research has addressed this question. As I described back in December, empirical research by my staff at the San Francisco Fed finds that over the past 30 years, higher uncertainty operates like a negative aggregate demand shock that reduces both economic activity and inflation. Following uncertainty shocks of the types that we currently face, expenditures on consumer durables, investment, short-term interest rates, and inflation all fall, while unemployment rises, in this analysis. Now, I'm sure President Lacker will be very happy to hear what I'm about to say, and that is that we also looked at this issue in a fully micro-founded DSGE model. This finding that uncertainty acts primarily as a demand shock is confirmed by the research using such DSGE models, both by my staff and by academic researchers. An increase in uncertainty causes households to save more for precautionary reasons. This affects both supply and demand in the models. However, in these models, the demand effects are by far the dominant ones. This is because the negative effects of an uncertainty shock on consumption are amplified when prices are slow to adjust, causing businesses to cut production further. This implies that uncertainty shocks lead to a negative output gap, a fall in inflation, and this is consistent with the empirical evidence I mentioned a moment ago. All told, both theory and data suggest that the uncertainty shocks that I believe are holding back our economy today really should be seen more as adverse shocks to demand, which monetary policy should aim to offset.

Turning to inflation, the medium-term outlook has not changed. I continue to expect overall PCE inflation to remain below 2 percent for the next few years, and I view the risks to the inflation forecast as balanced. Thank you.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. Like President Lockhart, I'm going to keep my remarks on economic conditions particularly brief today because I believe that we have more agreement on the outlook than we have on the policy implications of the outlook, which means that I'm not going to be as brief in my comments on policy tomorrow. My District business contacts remain concerned about the risks to the outlook, yet they are generally reporting only small changes in activity levels in their own businesses. A few of my business contacts point to either a coming slowdown or a coming acceleration in their sales. Their comments are consistent with the holding pattern around today's 2 percent growth rate. In my current outlook, I expect the recovery to remain in this holding pattern for the rest of this year and then generally pick up to a GDP growth rate of a little more than 2½ percent in 2013 and a little more than 3 percent in 2014. In order to achieve these projected growth rates, I assume that we provide further policy accommodation by extending the period of very low rates into 2015.

Among the data released since our last meeting, the August employment report stands out. It was particularly disappointing in that the BLS confirmed that the economy had made very little progress in labor markets over the summer. While the month-to-month swings in the household survey make the progress on the unemployment rate difficult to interpret, the decline in the employment-to-population ratio to essentially its post-recession trough makes it clear that there has been little sustained progress in labor markets. Nonetheless, as GDP growth picks up over the next two years, I am expecting that we will make gradual progress on unemployment. As mentioned in the memo on economic slack, the Cleveland staff has taken a close look at the flows into and out of unemployment to examine the natural rate of unemployment. This research finds that the trends of flows into and out of unemployment, often referred to as labor market churning, have been falling for several years. This decline in labor market churning implies that the current path to full employment will likely be slower than in past cycles. Some commentators treat the slow progress on reducing unemployment as evidence that the natural rate is far higher. However, in the Cleveland Fed model, a faster pace of GDP growth does lower the unemployment rate more quickly. While this result is supportive of monetary policy accommodation, it doesn't answer the question of the effectiveness of our nontraditional monetary policy tools.

Turning to inflation, I have made only small changes to my outlook for inflation. I agree with the Board staff that we're likely to see more disinflation in core PCE rates, but my forecast doesn't get quite as far away from the 2 percent rate as the Tealbook anticipates.

The risks to my economic outlook remain primarily to the downside for GDP growth. Although market participants seem to be taking a more optimistic view that Europeans will solve their problems, a crisis in Europe remains a large risk to the recovery in the United States. In addition, the fiscal cliff poses a significant risk of a dramatic slowing of the U.S. economy. These risks to growth imply that unemployment could end up higher than anticipated. On inflation, I continue to see the risks tilted toward the downside, given the significant downside risks to economic activity and the low levels of some measures of inflation expectations. In my view, these risks to growth, unemployment, and inflation make the outlook more uncertain than normal. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. Following our July meeting, the key question was whether the incoming data would finally begin to show substantial and sustainable improvement in labor markets. It's pretty clear that the answer to that question is no. Without a doubt, 2012 will go into the books as another year of unsatisfactory economic performance. This is the third year in a row of growth around 2 percent. This pace of growth leaves resource slack quite large. At the same time, the inflation outlook is not threatening, and numerous theoretical and empirical analyses show that there are ways to provide additional accommodation that will improve this economic situation.

In terms of recent developments, the problems that we've characterized as downside risks earlier in the year have materialized into actual headwinds. They are gathering in strength. My business contacts noted that their current operations are being adversely affected by increasingly negative forces in the U.S. and around the world. Similar to some comments that President Lockhart made, apparently CEOs are sharing their gloomy outlooks with their fellow CEO interlocutors, and this has the potential to reinforce downward expectations and spiral into even softer spending and hiring. For example, one of my regular contacts repeated comments he had heard from the CEO of a major U.S. conglomerate, who was a former Fed Bank chair somewhere. According to my contact, this CEO instructed all of his business units to plan for the possibility that the U.S. will experience a lost decade, like Japan. I think that's disturbing. With regard to Europe, many of my contacts thought the odds of truly awful outcomes had declined, and that's a positive comment. The recent ECB announcements regarding outright monetary transactions give the fiscal authorities somewhat more time to maneuver, but the additional bond buying will be conditioned on fiscal consolidation that likely will be difficult to achieve and bad for growth in those countries. And without stronger growth, the periphery countries are going to face repeated crisis events over the next several years. As one financial contact we spoke to put it, "All the Europeans have done is transform an acute problem into a chronic one." The other elephant in the room is the U.S. fiscal cliff. On the upside, my contacts say that surely the parties in Washington will find a way to limit the damage after the election.

But on the downside, many currently see uncertainty over the cliff weighing on activity, and no one can rule out the possibility of a messy outcome that would result in very significant fiscal drag hitting us around the turn of the year.

One bit of positive news is that I'm hearing commentary that indicates monetary accommodation is helping. Several financial contacts say that today's low rates are leading them to increase investment, and that should facilitate future activity. For instance, we heard comments on how funding for distressed properties has increased and capital is being redeployed to the residential sector. Indeed, there's been a lot of talk about residential construction improving, as several have noted. Furthermore, refinancing continues to help firms strengthen their balance sheets, putting them in a position to increase investment or pass on funds to someone else more likely to spend them, as you pointed out at our last meeting, Mr. Chairman. I should note that while low rates are pushing some to undertake more investment, our financial contacts do not say that they are seeing excessive risk-taking or anything approximating financial froth. And in the past, they've not been shy about pointing that out when they have seen that.

As I said earlier, conditioned on our current policies, the outlook for economic growth is unacceptable. It's unacceptable in part because recent data reinforce the obvious point that high inflation is not a concern, certainly not relative to our long-run objective and certainly not within our balanced approach strategy. And it's unacceptable because mainstream monetary analysis clearly indicates that there are means of providing more accommodation that can improve these outcomes. The Board staff analyses clearly demonstrate this. The LSAP memos had simulations that pointed that out, FRB/US's optimal control simulations and the nominal-income-level-targeting simulations point that out, too. Mike Woodford's careful analysis in his Jackson Hole paper showed the same.

While I'm at this point, let me make a couple of comments about DSGE models, which were discussed earlier today. It is certainly the case that we are presented with results from four models that are currently being looked at: the EDO model out of the Board, our Chicago model, Philadelphia's model, and New York's model. A question that President Lacker was asking was, in the context of these models, how big is slack, and how is it measured? At some level within the context of these models, this is a bit of a red herring. For instance, if you look at the projections, all of the inflation forecasts coming out of these models are under our 2 percent goal, and that's true through 2015. So, even in a model that's looking at whatever measure it is that's holding back inflation, there is no inflationary pressure—and some of the models have much less inflationary pressure than others. The second point is that the theory in these models is really about marginal costs. That's the fundamental variable. The firms in these models are faced with the following question: When I get to change my price and I've seen things change, what's my marginal cost structure that tells me how much I should increase my price, given that I won't be able to do it next time for sure? What have I faced, what am I expecting others to face, and things like that? Slack is often viewed in these models as a useful proxy at best. If there's a lot of slack, then your marginal costs won't be rising; they'll be low, and things like that. But the fundamental is really about marginal costs. And so, when you think about that, these models are really looking at the inflation data and everything around those data and saying, "We just don't see inflationary pressures." I can't tell you exactly what the resource slack is that is embodied in that, but we don't see inflationary pressures, and that's coming out of all four of the models that we're presented with quarterly.

Another point that President Lacker raised is, if sticky prices are really what's fundamental here, why haven't they adjusted already? And you hear that a lot. In these models, a lot of asynchronous price adjustment for whatever reason is given, and John Taylor has contributed importantly to exactly that point going way back over the last 20 or more years. But even allowing for the fact that maybe there would have been adjustments already, I think it's reasonable to assume that we've been hit with a sequence of negative aggregate demand shocks along the lines that I believe President Williams's comments were pointing at. At least we've certainly been surprised the last three summers in a row that output has been lower than we were projecting, so something different is at work. And then it's also the case that inflationary expectations matter in these pricing equations and models. This is a little more delicate and subtle. Apparently inflation expectations are stable in all of these models, but there are subtle modeling choices at work in each of them about what the stochastic process is for marginal cost pressures and how they're updated and what inflation expectations are. This gets at a point of dissatisfaction—when I talk with various people in the Federal Reserve, they might say, "I don't like looking at the FRB/US projections because I see all of this monetary accommodation coming, and I don't see inflation coming, and why is that?" I talk to people, and they worry a lot about inflation. We aren't able to model that—apparently not satisfactorily, because they all come back to the same place, which is, expectations are well anchored or the stochastic process is mean reverting at some level, and so we just don't see things getting out of hand. I want to point out that this is not a FRB/US question per se, but it's a statement about how much we really know within the context of well-articulated macro models. It's way beyond just FRB/US. All of our DSGE models have that same feature.

So the bottom line, Mr. Chairman, is that this is the third summer in a row that economic growth has failed to achieve escape velocity, and the economy's liftoff has fizzled on the launching pad. It seems clear that the outlook crosses the threshold that justifies more action. Thank you.

CHAIRMAN BERNANKE. Thank you. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. When we were in Jackson Hole, we got to hear you, Mr. Chairman, talk about the tools we have available. You described our asset purchase tools and our communication tools, and so I'd like to give you some feedback from the Ninth District about how we're doing on the communication front. I get the same kinds of questions, I would say—usually from different people, but they sometimes come from the same person. The first comment is, as the FOMC considers its date to keep rates low through late 2014, people are concerned, why is it that the Fed is committed to keeping rates low for two years? How could the Fed commit like this without thinking about the fact that the world could change in some fashion? And the second comment is, by saying that interest rates are going to be low for that long or are expected to be low for that long, the Fed is signaling that conditions will be weak, and that, in and of itself, is suppressing demand. Now, of course, I say to them, "No, you misunderstood what the FOMC is intending to say to you. It is meaning to communicate that the economic conditions threshold for raising rates is now higher than you might have thought. The recovery has to be further along than you might have thought." At this stage, my questioner says, "Well, that makes sense, but why didn't you guys just say that?" At that point, I usually turn the conversation to something about fracking [laughter] because that seems to work. To me, this kind of dialogue suggests that we need to communicate more clearly about our reaction function. And communication about our reaction function is sometimes motivated in terms of accountability and transparency, and these are, I think, good motivations.

But as my brief summary of my Ninth District colloquies indicates, communication about our reaction function is also an essential ingredient to the effectiveness of policy.

Now, the changes that have been made in B(5) relative to what was in the previous FOMC statement in July—B(5) now represents even more of a commitment because actually the conditioning clauses have been removed, although many readers were not paying close attention to those conditional clauses anyway. I think the lead-in sentence to B(5) is much better, but I have to say, most people don't read the words that carefully in the FOMC statement. Their takeaway is the year. That's the main thing they're hearing.

So before we communicate our reaction function, we have to start thinking about how we formulate one, and as I've mentioned before, I think that a good reaction function should have at least two inputs: some measure of inflationary pressures and some measure of labor market underutilization. These inputs would capture how well we're doing in terms of our two mandates, and our policy stance, I would think, should evolve as these inputs change. I see this as the basis for the approach that President Plosser, President Williams, and I are following in our alternative policy statements. The KPW statements emphasize only those changes of the data that are viewed as leading to changes in measures of inflationary pressures and labor market underutilization. And then the KPW statements translate those changes in inflationary pressures and labor market underutilization into the rationale for the Committee's policy decisions. At this point, I'll digress briefly to say that I think we've completed our cycle of going through the parallel FOMC statements, and President Plosser, I believe, will bring forward the KPW approach to the subcommittee on communications for further consideration. So I'm sure the subcommittee members are glad to hear that. That said, just like the FOMC statement itself, the

KPW memos are very oriented around changes in monetary accommodation and how they relate to changes in conditions.

Ultimately, though, a Committee reaction function has to translate the level of inflationary pressures and the level of resource utilization into a decision about the level of monetary accommodation. A key challenge we've struggled with is that it's much easier for us to reach accord about the changes in these variables than it is for us to reach accord, at least qualitatively, about the levels of inflationary pressures and the levels of resource utilization. As we saw from submissions of the consensus forecast, there are very different views around the table on that. Some might see this heterogeneity as precluding the possibility of developing a Committee reaction function, but I think this is where the consensus forecast process is a very useful way forward. It provides a way for us to come together behind a Committee view about the medium-term inflation outlook and about the economy's performance relative to the employment mandate, conditional on our current policy stance now and as anticipated. Then we can usefully formulate the Committee's reaction function as a mapping from that consensus view into policy choices. "Medium-term inflation is too high relative to target": That would say you should contemplate reducing accommodation. "The unemployment rate is too high over the medium run relative to mandate-consistent levels": Then the Committee should contemplate adding accommodation.

Mr. Chairman, the Committee's consensus view about the economy seems clear, and it's been described in many recent FOMC statements. The Committee expects inflation to be at or below target over the medium run and unemployment to continue to be elevated for some time relative to mandate-consistent levels. That consensus view—inflation running too low;

unemployment, too high—implies a need for additional accommodation, accommodation that would lower unemployment while keeping inflation near target.

I opened by discussing a public desire, at least in the Ninth District, for greater clarity about our reaction function. In the next go-round, I'll describe how, by fulfilling that desire, we can also provide additional accommodation. And I'll return to the question being posed to me implicitly by my Ninth District interlocutors: Under what conditions will the FOMC begin to raise the fed funds rate? I will argue that our communications often suggest the FOMC is unwilling to tolerate low unemployment, even if that low unemployment rate is not translating into medium-term inflationary pressures. And I think paragraph 5′ of alternative B offers us an opportunity to clarify our attitude toward low unemployment—that we're not against low unemployment if it doesn't lead to medium-term inflationary pressures. Maybe that clarification could provide stimulus that's appropriate in light of the Committee's consensus outlook. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President George.

MS. GEORGE. Thank you, Mr. Chairman. The 10th District economy continues to expand at a moderate pace. Our retail, restaurant, and auto contacts reported higher sales and expect gains in coming months, particularly those in the auto sector. Energy activity expanded further as gains in oil drilling outpaced declines in natural gas drilling. Housing market conditions continued to improve, and construction activity increased for both residential and nonresidential sectors. Manufacturing activity in the District expanded at a slightly faster pace in August. The number of contacts in our manufacturing survey who were expecting higher levels of production and shipments in six months moved notably higher, and expectations of employment gains remained in positive territory. One component of our survey that has softened over the past several months is the expected level of new export orders. The number of contacts reporting higher levels has been declining but still outweighs those expecting an outright decline. So far this year, total District exports remain above their level a year ago, though exports to Europe have been decreasing. In terms of the District labor market, initial claims for unemployment insurance have declined notably over the past few months, and layoff announcements have been modest. Still, employers remain quite cautious about expanding their payrolls. In terms of agricultural conditions, U.S. net farm incomes are projected to reach their second-highest level in history despite the worst drought in three decades. Farm incomes are being supported by higher crop prices and crop insurance payments, which are offsetting declines in production and livestock profits. In addition, the persistent, strong demand from the ethanol and export sectors continues to strain low crop inventories and could place upward pressure on prices heading into 2013 as reflected in futures markets.

Turning to the national outlook, the recovery has been progressing mostly in line with my expectations. Overall, I take a similar view as the Tealbook in that incoming data since the last meeting have not materially affected my outlook for economic growth. For the second half of this year, I anticipate that firms will remain reluctant to undertake large expansion projects or aggressively add to payrolls because of the near-term risk. In particular, I noted in the most recent NFIB survey that small businesses cite taxes and the regulatory landscape as their most pressing problems, with poor sales third on the list. These issues are reaffirmed when I talk with my business contacts, and suggest that monetary policy may find it particularly challenging to offset headwinds of this nature. Thank you.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. Incoming information since our last meeting suggests that economic conditions in the Third District have continued to improve modestly. Although labor markets and manufacturing remain subdued, the housing sector and retail sales have strengthened notably. Housing markets in the District are showing their strongest signs of recovery since the recession began. House prices are up significantly in the second quarter in Pennsylvania and New Jersey. Housing permits driven mostly by multifamily-sector housing have been on an upward trend, and residential builders and real estate agents both reported increased activity in August. The commercial real estate market is also showing continued signs of strength. Tightening in the office market in Center City, Philadelphia, is placing upward pressure on rents. Retail sales in the region have grown somewhat faster over the intermeeting period, and auto sales have continued to increase at a good pace.

Turning to the nation, based on incoming information, my forecast for the second half of this year is not terribly enlightening. It's modest, and I think it will continue to be over the coming six months. However, my medium-term and longer-term forecasts have not changed very much and, indeed, point to a continuing modest recovery. Given the large size and nature of the shocks that hit the economy, a slow recovery, as we've heard, is actually the most likely outcome. It's not necessarily evidence that our monetary policy stance is inappropriate. Indeed, many of the rules reported in Tealbook B suggest that policy is about right. Political and fiscal uncertainties at home and abroad still cloud the outlook and are holding back business investment. Overwhelmingly, the anecdotal evidence suggests that business leaders' reluctance to invest and hire is driven by uncertainty, not excessively tight financial conditions. Households continue to deleverage, and that's holding back spending as saving remains high. My concern is that none of these headwinds will likely be ameliorated or substantially affected in the near term with further monetary easing or the further easing of financial conditions. That doesn't seem to be a constraint.

I know I'm not alone in having wished for a stronger employment report last Friday. The payroll increase in August and the downward revisions to June and July were disappointing. Despite the strong actions that the Fed has taken, the unemployment rate remains above 8 percent. This has generated a discussion about whether the continuing high levels of unemployment are structural or cyclical in nature. I actually don't find this conversation very useful, particularly for policy. Rather, I believe it's better to think about whether the high level of unemployment can be addressed by further easing of financial conditions, which is what monetary policy would entail. It seems to me that before we conclude that unemployment calls for more monetary policy accommodation, we must understand more about the nature of the shock that's caused high unemployment and its unwelcome persistence. This is consistent with President Lacker's observations. It's not about whether unemployment is cyclical, structural, permanent, or temporary, necessarily. It's about understanding the nature of the shock that's causing the problem that we observe.

There's still a lot we don't understand about the labor market and its ongoing struggles. Academic and public debate expresses a wide range of views, and we should be humble about our state of knowledge. We've discussed, for example, the difficulty of transferring skills from one sector to another. Those who lost their jobs in construction will have a hard time going to other industries. But this type of unemployment cannot be solved by monetary policy. However, it's not the only source of mismatch. Skill mismatch can occur within sectors, not just across sectors. Jaimovich and Siu point to what's called job polarization. Job opportunities in middle-skill occupations, which tend to be focused on routine tasks, are disappearing because of changes in technology and other things, while low-skill and high-skill job opportunities are in fact increasing. The employment share of routine occupations—this middle group, which includes jobs such as machine operators, meat-processing plant workers, and office and administrative support—has been decreasing since the mid-1980s. At the same time, the employment share of nonroutine cognitive occupations—including surgeons, lawyers, and, of course, economists—and that of nonroutine manual operations—whether it be janitors, gardeners, bartenders, or home health care—have been rising. In other words, there appears to be a polarization in the job market toward the low and the high, or the tails of the distribution, and away from the middle. During the three jobless recoveries since 1991, the level of employment in these routine occupations has never recovered to pre-recession levels. The absolute level appears to fall and fall permanently. The fact that this job loss seems to occur sharply during recessions makes it appear to be cyclical, but it does not recover. This is a phenomenon that cannot be addressed by monetary policy. For those who point to low wage growth as evidence against mismatch, it’s interesting to note that real wages in the tail of the distribution actually seem to be rising modestly, unlike in the middle of the distribution. Again, we do not have definite answers to what’s happening in the labor market, but we need to consider that evidence exists that the problems may not be amenable to monetary policy or easing of financial conditions.

The FOMC has applied a high level of monetary stimulus during this recession and recovery. The fed funds rate has been effectively zero for four years, and we have said we expect it to remain there at least through late 2014. We have implemented two rounds of asset purchases, followed by the maturity extension program. Yet unemployment remains high. Given this evidence, one could draw two possible conclusions. One is that monetary policy is the right tool, but we just haven't implemented a large enough program. Given the sluggish employment response to date and the large amount of stimulus that has been supplied, it seems as though it's increasingly plausible that further monetary accommodation is not going to be effective in quickening the pace of recovery to a higher level of employment, much as we wish it could.

One still might argue that because high unemployment is very costly and we are uncertain about the effect of more monetary policy accommodation, we should try it. What do we have to lose? Well, in my view, we have a lot to lose. The larger the balance sheet becomes, the higher are the risks to the economy that we will not be able to exit in a way that preserves price stability, maximum employment, or our own credibility. Ever-more-aggressive action increases the risk of poor outcomes in the not-too-distant future or maybe the distant future. To avoid this, we are going to have to be relying on tools that are not guaranteed to work. Inflation expectations, while stable, are stable until they're not. Should inflation begin to rise quickly, we may have to contract our balance sheet at a very fast pace or perhaps raise IOER very rapidly. Will that be disruptive to markets? We won't know until we face that situation. If our policy is not very effective at influencing unemployment rates, then inflation could begin to rise well before unemployment has shown much of a decline. Will we have the fortitude to take the necessary actions to reduce accommodation, and if so, how well will we be able to communicate our rationale? Would we disrupt markets? Would we reverse the progress on unemployment? I have grave concerns that we are sowing the seeds of a very complicated exit for little or no benefit to the unemployment rate today. We say these exit risks are manageable, and I'd like to believe that they are, but we really don't know that. Given the unprecedented nature of the actions we've taken, how manageable these risks are is really unknowable at this time. We are and will be in uncharted waters. That's one reason I strongly urge us to be prudent. To my mind, at this point, costs of further action greatly exceed expected benefits. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Mr. Chairman, just as President Lacker was a straight man for President Lockhart, in a way, President Plosser has been a straight man for me. Like President Pianalto, I will interlocutate [laughter] more tomorrow than I plan to do today.

President Williams made a very important point. He talked about how uncertainty has paralyzed most businesses and how uncertainty acts as an aggregate demand shock. I agree with that analysis. I hear that from my contacts. The question is, is monetary policy effective in offsetting this form of uncertainty? President George mentioned the National Federation of Independent Business. She cited some data. What she did not cite was that 93 percent of that sample makes clear that they do not wish to borrow, either because of uncertainty or because they have access to capital that's abundant and cheap. In my own surveys as preparation for this meeting, I asked a simple question: If the actions we were to take at this upcoming meeting were to reduce your cost of capital by 25 basis points or more, what would it do in terms of your investment plans? I deliberately sampled larger companies because that's where cap-ex comes from. Employment comes from small and medium-sized businesses. We assume that, just by sheer weight of numbers, significant cap-ex comes from large corporations. And I would say that 9 out of 10 said it would not change their investment plans, even if we took action that led to a reduction of 1 percent or more in their cost of capital. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. First, I want to make a comment on President Fisher's last remark. My understanding is that capital spending has never been particularly interest rate sensitive. It's really driven by demand and capacity utilization, things of that nature. So I wouldn't expect that to be a really strong channel by which monetary policy stimulates the economy.

MR. FISHER. Can I just make a point to that?

CHAIRMAN BERNANKE. Sure.

MR. FISHER. At least in the drafts of our statement, we were saying that business fixed investment was weak. The question is, are we affecting business fixed investment? And, more important than that, are we affecting employment? My point is that in the responses I'm getting to anecdotal inquiry—not systematically organized, although the systematic surveys that we see, through the NFIB and others, show that it is questionable whether or not we are actually affecting employment. The question is, are we affecting employment over the short term or the long term? We have a wealth effect. The Chairman has made that a very strong argument, including at the last meeting. If you're advising a corporation about what to do with the savings that they can achieve through cheaper capital, they can invest it in greater plant or equipment expansion, they can buy back their stock, or they can increase their dividends. And I would argue that the former would have a more immediate impact on employment creation than the latter. Excuse me.

VICE CHAIRMAN DUDLEY. My point was that I don't think very many people in the room would debate the point that capital spending is not going to be very influenced by small changes in interest rates. So I don't think that's something that we have a big disagreement about around the table.

As far as the outlook is concerned, since the last meeting, I think there's been very little change with respect to the U.S. data. Some data are a bit better—the retail sales data, the motor vehicle sales data. Some are worse—like the ISM, which fell below 50, and the components of the ISM were particularly weak. Inventory strength actually held up the ISM, which is a little concerning. The capital goods orders have clearly been weak. I've noticed that, if you look at the nondefense capital goods orders ex air, the rate of orders now has fallen below the rate of shipments, and this is actually not a positive indicator for what's going to happen to capital spending going forward. In terms of payrolls, I was prepared to come into the meeting, if we had a strong payroll employment report, to argue how noisy the data are and how we can't take any signal from that. But the reality is, if you really look at the trend—and understand that there's a lot of noise in the series—the last two months, 118,000 per month; so far this year, 139,000 per month; in 2011, 153,000 per month. Now, there's noise month to month, but if you look at the longer-term trends, what you see is basically either a flat trend or maybe a gradually slowing trend. So that's what I would take away from the payroll data.

There are also two other negative developments that I think are really worth highlighting. First, I think the external environment continues to worsen. We've talked a lot about Europe, but we haven't really talked very much about China. China—if you look at the official GDP growth numbers—is still okay; 7.6 percent, I think, was the number for the last quarter. But if you look at the actual indicators coming out of China—like trade, for example—it would not at all surprise me if it turned out that the Chinese slowdown was much more substantial than what the official indicators show. We're also going to be seeing a further shock to real income over the near term from higher oil, gasoline, and grain prices. The grain price effect is going to be particularly problematic for the EMEs, where food is a much larger share of the consumption basket. Also, as many other people have noted, the risks in early 2013 are tilted to the downside given what's going to happen on the fiscal front. I don't think any of us knows with any certainty what's going to happen, but the uncertainty between now and then is negative for the outlook. And I think most of us believe that we're probably going to end up with some greater degree of fiscal restraint in early 2013 than what we have right now.

So to me, the economic outlook calls for us to do more. Now, I agree that the tools we have are not that powerful. But rather than concluding from this that we shouldn't use them, I conclude that we should use them more forcefully. I think a failure to act forcefully at this meeting would be very damaging to confidence; it would imply that we're out of ammunition or almost out of ammunition; and it also might signal that we were cowed by the political environment, which I think would be very unfortunate. When I consider the risks to action versus inaction in an uncertain world, I also view the outcome very much as quite asymmetric, with the bias clearly on the side of action. Consider two alternatives: We do more, and the economy is stronger than expected; versus, we do very little, and the economy disappoints. Which creates the greatest disappointment? Surely the latter. I would be very happy if we did another round of LSAPs, extended the guidance, et cetera, and the economy turned out to surprise us and did better than expected. In that case, we could cut off the LSAP program early, and the balance sheet wouldn't have grown very much. In contrast, if we do nothing and the economy disappoints, I think we will rue that as a lost opportunity. I also think the timing is right. The ECB did something very forceful at their last meeting, and following on right behind them might actually provide a firmer underpinning or momentum to confidence and market sentiment.

Now, what’s the lesson of the past few years? Well, I think the lesson of the past few years is that we’ve been consistently disappointed on the economic growth side of the equation. There are two explanations for this. One is that the headwinds were greater than what we thought, but there’s another explanation as well—that maybe monetary policy is not as accommodative as we thought. And this goes back to President Williams’s comments. I’m pretty convinced that monetary policy stimulus effects probably become attenuated over time, because part of the way that monetary policy works is by affecting the timing of spending decisions. We don’t really have an experience where we’ve had a period like this in which monetary policy has supposedly been very loose for many years in a row. And I expect what we’re seeing is that the monetary policy impulse to the growth side is actually lessening over time. Regardless of whether you say it’s consistent disappointment because of headwinds or consistent disappointment because monetary policy is not as stimulative, as we thought, I think either way, they both imply that we should do more. We’ve essentially foreshadowed forceful action in the August FOMC statement, the minutes to that meeting, and the Chairman’s Jackson Hole speech, so I think it’s time to follow up on what we’ve foreshadowed with action at this meeting. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Anybody for coffee? Coffee is available. Why don’t we take 20 minutes and return at 3:10?

[Coffee break]

CHAIRMAN BERNANKE. This is a prompt group. I like this.

MR. LACKER. Thanks to Debbie. Thanks to the Deputy Secretary.

MS. DANKER. Happy to help.

CHAIRMAN BERNANKE. Okay. All right. Governor Yellen.

MS. YELLEN. Thank you, Mr. Chairman. The two employment reports we have received since our last meeting confirm that the economy is growing too slowly to generate any meaningful progress in improving labor market conditions. They're consistent with an economy that is expanding at or near its potential. And although I was heartened by July's strong reading on consumer spending, I agree with the staff's reluctance to make too much out of one month of better data. Taking a broader perspective, incoming data provide no evidence of any fundamental change in the outlook for the better. I agree with the conclusion, too, of the staff memo for this meeting that the preponderance of evidence points to a large margin of labor market slack. If payroll gains are sustained at their recent pace—around 125,000 per month in July and August—there's a good chance that we will look back on a lost decade. The SEP forecast I submitted this round shows unemployment hovering above 7 percent at the end of 2014, even with substantial additional policy accommodation. Moreover, continued progress at the pace we have seen recently is a big "if." Readings from some forward-looking indicators, such as the expectations component of consumer sentiment and new orders for nondefense capital goods ex aircraft, do not bode well for household and business spending in the months ahead.

Amid the search for explanations of the painfully slow recovery, there's been a lively debate about the role of economic uncertainty. Now, there are many different sources of economic uncertainty, but many of you have highlighted uncertainty about economic policy, especially about European policy responses and about the outlook for U.S. fiscal policies. You've noted that this policy uncertainty has been restraining household and business spending. And several of you have hypothesized that this might account for the weak spending and hiring we saw last spring. If uncertainty about economic policy as opposed to uncertainty about the broader economic outlook, accounts for why employers were deferring hiring and investment decisions, then a lifting of that uncertainty might arguably provide a significant boost to spending. Under a favorable scenario, for example, we could see some resolution of fiscal policy uncertainty in the months after the election. My own view is that policy uncertainty has been exerting some negative influence on aggregate demand. Some systematic evidence of its influence comes from empirical work by Nick Bloom at Stanford. Bloom and his coauthors have developed a high-frequency measure of economic policy uncertainty, and they've related this measure to key economic variables, such as payroll employment growth. They show that increases in economic policy uncertainty foreshadow declines in output, employment, and investment, and that high levels of policy uncertainty in recent years, such as uncertainty about future tax policies and the debt ceiling, have hampered the recovery.

But economic policy uncertainty is only one of many factors relevant to the economic outlook. And the evidence, as I read it, strongly suggests that an uptick in policy uncertainty cannot account for last spring's slowdown. Bloom's index of economic policy uncertainty spiked up in the summer of 2011, but by March it had fallen back two-thirds of the way toward pre-recession levels. It remained at low levels in April and May, at the very time when the economic recovery was sputtering. On the premise that economic policy uncertainty affects economic activity through consumer and business sentiment, it's also worth noting that several indexes of consumer sentiment and business optimism peaked in April or May. So an increase in economic policy uncertainty does not seem capable of explaining the spring slowdown. This suggests to me that spending is unlikely to surge, even if policy uncertainty were to diminish in the months ahead. Unfortunately, our current economic malaise has substantially deeper roots than just uncertainty about the future direction of economic policy, and these headwinds are unlikely to soon subside. Uncertainty, broadly defined, does, however, influence my thinking about monetary policy. Uncertainty provides a reason why we should act forcefully now to strengthen the recovery, rather than trying to keep our powder dry. Given the downside risks to the current outlook, and the constraints on our ability to provide stimulus while the funds rate is at the lower bound, the best we can do at this point is to ensure that the economy is as resilient as possible in case we are faced with fiscal gridlock, a European debacle, or other negative shocks.

Another argument for strong action relates to hysteresis. We face the worrisome risk that the longer the economy operates with such high levels of slack, the more likely it is that the downturn will have a lasting negative impact on employment and potential output. I've seen no strong evidence for hysteresis effects yet, but our current situation is unprecedented, at least in recent U.S. history. In the early 1980s, the unemployment rate fell almost 4 percentage points over the 2¾ years following its late 1982 peak, to 7 percent. By contrast, since its most recent peak in October 2009, the unemployment rate has fallen less than 2 percentage points. Moreover, hysteresis effects may become evident not only in the unemployment rate, but also in labor force participation. As the Tealbook box shows, the participation rate remains far below the staff's estimate of its demographic trend rate, and persistently poor job-finding prospects may well leave a permanent imprint on the participation rate. Taking this argument one step further, I would argue that just as there can be permanent costs of allowing unemployment to remain high for an extensive time, there can also be permanent gains in output and employment in a high-pressure labor market. We saw some evidence of this in the late 1990s, when hysteresis seemed to be working in reverse by pulling population segments into the labor force that for a long time had been excluded. Chronic labor shortages induced firms to invest more heavily in training, and it fostered upward mobility as firms moved employees up through internal job ladders more rapidly.

Hysteresis provides a rationale for a more expansionary monetary policy. The argument runs as follows. Our usual loss function is symmetric around the NAIRU. It thus assigns equal costs to given size deviations of unemployment above and below the NAIRU. But with hysteresis, the penalty for a deviation of unemployment above the NAIRU should be greater than that for an identical deviation of unemployment below the NAIRU. The implications of such an asymmetric weighting of unemployment gaps for optimal monetary policy in the present circumstances are substantial. Bob Tetlow, a staff member in the Board's Division of Research and Statistics, has been exploring optimal control simulations where the loss function depends on the squared deviations of a transformation of the unemployment rate from the NAIRU, rather than on the squared deviations of the unemployment rate itself from the NAIRU. This is a tractable technique for, in effect, assuming an asymmetric loss function. In Tetlow's simulations, the only policy tool available is the path of the federal funds rate. His results showed that even a moderately lower weight on unemployment undershoots below the NAIRU, relative to overshoots, could postpone the timing of liftoff substantially.

Based on all of these considerations, in tomorrow's policy go-round or maybe this afternoon's, I will argue that strong policy action is called for at this meeting.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. I was going to make comments about my forecast compared with the consensus, but I'm not entirely sure which one of the consensus forecasts to compare it with.

CHAIRMAN BERNANKE. You pick. [Laughter]

MS. DUKE. I'll just say that I think it's not inconsistent, but there are four assumptions that are a little bit different in my forecast than in the Tealbook and, maybe, in the forecasts of some of you. The first one is that there is an underlying strength in the fundamentals of the economy—such as balance sheet strength, debt service capacity, and credit supply—and that this strength is being masked by low levels of business and consumer confidence as well as concern about risks posed by Europe and the fiscal cliff, but that whenever loan demand picks up, the credit supply will be fully available to meet it. The second one is that it'll be especially difficult to interpret data over the second half of this year and the first half of next year, as investment and purchase decisionmaking is increasingly either paralyzed or distorted by uncertainty about federal tax and spending policies, and that, on balance, the uncertainty itself will depress activity and lead to weaker outcomes for 2012 and 2013. Third, the one place I do still see a potential for an upside surprise is in housing, and I believe purchasing mortgages might be helpful here, but not necessarily in the ways that you might think. And, finally, I have assumed that we choose alternative B today. Furthermore, in light of my assumptions about the fiscal cliff, we're more likely to face deteriorating conditions than simply unsatisfactory progress as we approach the end of the year; and that the deterioration will lead us to continue asset purchases well into 2013.

In recent meetings, I've talked at length about my belief in the first assumption, and I'm not going to repeat that today. But I'd like to discuss assumptions 2 and 3 in this round and reserve comments about assumption 4 for the policy round. Beginning with my pessimism about the rest of this year and the first part of next, almost every conversation that I've had with a business person or a banker recently has had the same theme: Things seem pretty much the same—slow, steady improvement in business fundamentals, but with a new tendency to put all long-term investment or expansion decisions off until after the election. Oddly enough, these businesses have the luxury of postponing decisionmaking precisely because things have improved. They've strengthened their balance sheets and found ways to grow the bottom line even in the face of sluggish top-line growth. In fact, their profitability-improvement efforts are likely at least partly responsible for the slow improvement in labor markets. Indeed, the business investments that do get the green light are mostly directed at saving labor, and no one mentions any plans for hiring. I believe the marked slowdown in business spending that we're already seeing is a direct result of a wait-and-see attitude.

As we get closer to the end of the year and the expiration of tax cuts, implementation of expense sequestration, and expiration of fixes for doctors and alternative minimum taxes, businesses and individuals will have to start making adjustments for what could happen, whether or not it actually does. For example, contractors who expect that they'll have to cut staffing if their contracts are affected by sequestration are legally required to issue layoff notices in advance, even if the spending is not ultimately cut and the layoffs don't actually happen. Those who receive the notices will surely adjust their spending accordingly, and this potential pall on holiday spending has to be making retailers nervous about their inventories. Those same retailers are having to pull the trigger now on their inventory decisions in the face of a potential shutdown of East Coast ports by a longshoremen's strike. So who could blame them if they decide to shave a bit off their purchases just to be sure? Health-care companies are especially cautious as they plan for both sequestration and implementation of health-care reform. Simple operational changes, like tax withholding tables, have to be put in place for all businesses. For individuals, asset sales decisions, especially for sales of businesses, will have to be made soon to ensure the current capital gains tax rate. I had the personal experience of doing a new will recently, and my lawyer explained to me that things would be very different if I died this year or in January [laughter]. For these reasons, I believe that the fourth quarter is going to be affected by the fiscal cliff regardless of its ultimate resolution as businesses, in particular, hit the brakes. And I can't convince myself that a lame-duck Congress will somehow resolve all of the fiscal issues by the end of the year, no matter how the election turns out. In fact, the best case I can construct is a temporary extension that pushes the political wrangling well into the first quarter of next year. And after the debt ceiling brinkmanship we saw last time, I think a perfectly plausible scenario is a plunge off the fiscal cliff, on the assumption that some sort of deal will be easier to construct after the damage becomes more obvious. So I think we have to make contingency plans for how we can shore up confidence in the face of a really bad outcome, rather than thinking just about how we react if the recovery stays unsatisfactorily slow. For these reasons, I've taken on board a bit of a lean toward the "Fiscal Cliff" scenario in the near-term portion of my forecast.

In contrast, my continued optimism about housing and the underlying strength in the economy shows through in my medium-term forecast. I think that the inventory factors that began to emerge early in the year are now taking full hold in house price movements, and that the momentum arrow is pointing up. This makes a difference. The staff estimates that roughly 3 million households, almost one-fourth of underwater households, moved from a negative to a positive equity position in the second quarter. The Tealbook baseline forecast assumes a 5 percent increase in house prices this year that's already pretty much baked in, followed by a leveling-off. But some models are predicting continued strong gains in house prices. Staff forecasts of house prices and residential investment are on the conservative side, tempered by concern about foreclosure pipelines, the elevated level of vacant houses, weak household formation, and the tepid pace of the housing recovery so far.

Here I think there's reason for more optimism. Foreclosure pipelines are full because the exits are still clogged, but the pace of new delinquencies has slowed markedly. The exits are no longer clogged by national moratoriums or retooling for new modification programs. The current backlog is more closely tied to state-specific or operational issues that seem to me unlikely to suddenly clear and release a flood of foreclosures onto the market. As for the vacant inventory, a large portion of the vacant homes not listed for sale is outside of bank REO inventory. Because we don't know why they're held off the market, I'm not sure we can make assumptions about their sudden return to the market. I view the potential for pent-up demand to show through in faster household formation and put upward pressure on house prices as even more likely than the potential for a surge in foreclosures to hold prices down. At some point, demographics win. Those kids now living at home with their parents will not stay there until they're 40. [Laughter] And when they do form households, they're going to require housing units, whether rental or owner occupied.

MR. FISHER. We're going to hold you to that.

MS. RASKIN. Ship them to Betsy's house. [Laughter]

MS. DUKE. To me, this represents the one area of dry tinder in the economy that could be lit with a spark of confidence. To be sure, mortgage lending conditions are still extremely tight, but some recent developments should help. The specter of putback risk has reportedly been holding back loans to borrowers at the lower end of GSE standards. The FHFA has now committed to reducing putback risk beginning in January 2013 through better front-end quality control and time limits on liability. With house prices on the rise, fewer loans should fall through because of appraisal issues. Regulatory uncertainty should clear, as new regulatory requirements for loan origination, securitization, and servicing are likely to be finalized in the coming months.

Probably the biggest drag on lending is the shrinkage of loan origination capacity. The industry is showing signs of strain in what looks to be only a trillion-dollar origination year, compared with a peak origination of $3 trillion not that many years ago. But if high profits are the best fertilizer, we should see more banks entering the business. I want to investigate actual data, but anecdotally, the bankers I spoke with this time who were in the mortgage business were actually having record profits, while those who weren't in mortgage origination were wondering about their survival. I'm talking about the difference between a range of 0.5 to 0.6 ROA, for those with no mortgage business, versus one of 1.30 to 1.50, for those with a mortgage business. So, for all of these reasons, I think there's a lot of meat left on the house price and housing finance bone, and I'm optimistic about that part of the forecast. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. Because John captured my views on the economic outlook, I'm going to jettison most of what I would have said. In fact, I think John captured my views better than I had captured my views. So I thought I'd turn back to labor markets, moved by some of Charlie Plosser's comments. The first comment I'd make is that it's important to distinguish between cyclical labor market conditions and longer-term labor market issues. I don't think there's any doubt that we've got some chronic labor market issues in the United States. There's been evidence of declining dynamism in U.S. labor markets for well over a decade. There certainly is a substantial sense that people currently taking lower-income service-sector jobs—if they had better education and training—would be available for jobs that might then be created with higher value added. What Charlie referred to as polarization is undoubtedly true, but again, a chronic issue rather than a cyclical one. I actually think that unlike so many other questions, there's been a substantial convergence of views—not entirely, but a substantial convergence of views—around the proposition that a relatively small portion of the big jump in unemployment that we've seen is attributable to structural factors. There's been, as you all know, substantial, good, and careful work from the Federal Reserve Banks of Cleveland, New York, and San Francisco over the past several years that has supported that conclusion. And I think among academic researchers, the convergence is also manifesting itself, as shown most recently in Ed Lazear's paper at Jackson Hole, following on, by about five months, Jesse Rothstein's paper, which surveyed much of the same material and came to many of the same conclusions.

Jeff, at the last meeting, suggested that a paper done by Richmond Fed research staff was a dissonant voice on this basic proposition that structural unemployment was not a big part of the story. This paper, of course, starts from a very different perspective on long-term unemployment than the literature I just referred to a moment ago. The Richmond Fed paper argues that an unobserved heterogeneity among unemployed workers means that newly unemployed workers have inherently different exit rates, and that over time, the composition of the pool of the unemployed shifts toward workers who started with the lower exit rates. I looked at the paper after Jeff talked about it at the last meeting, and I spoke with others here at the Board about it, and I actually don't think it establishes a case for structural unemployment. There are a lot of empirical and technical questions about the paper—it's certainly interesting and may well have significant merit—but I actually don't think it's making a structural argument, at least not if we think of "structural" as referring to nontransitory unemployment that can't be affected fairly directly by fluctuations in aggregate demand. It would be unsurprising to learn that firms are more likely to lay off relatively less-valued employees whose lesser perceived abilities may mean that they're less likely to be quickly plucked up by a firm that is hiring. That phenomenon is entirely consistent with a demand-driven increase in unemployment. More generally, the Richmond Fed model attempts to decompose the variation in the pool of the unemployed over time. So it addresses the reasons for fluctuations in unemployment over history—in recessions, but also in recoveries. The reasons for unemployment increases also explain the reversals that take place during recoveries. That is, as there are fewer unemployed, firms cannot afford to be as demanding and thus are more likely to turn to the pool of the supposedly less valuable workers. This seems, to me at least, more a cyclical than a structural explanation, and thus, again, whatever the ultimate merits of the paper, I don't think it really undercuts the consensus reached in the papers to which I referred earlier.

One final thought on structural unemployment, and this relates a bit to what Janet was saying a moment ago. The Richmond paper describes something as the "true duration dependence" position, as opposed to the "unobserved heterogeneity" position that it takes. The true duration dependence position is that, quite apart from any inherent worker qualities, the bad luck of being unemployed for an extended period will itself begin to erode the overall employability of enough workers that there will be macroeconomic effects. As Janet said, historically, we haven't seen much evidence of this in the United States, though many, myself included, have thought that the severity and duration of the current employment problem could produce some observable hysteresis effects this time around. Logically, one would think that at some point these effects would manifest themselves. But I have to say, to date, there still isn't much indication of any such effects. And indeed, I think if one looks at what's been happening to long-term unemployed, you might say there's actually been a little bit of an improvement in their performance, which would suggest that we're not sliding closer toward hysteresis, but that, once again, for reasons not entirely understood, the U.S. labor market seems relatively insulated from those effects. But again, as Janet said, basically, whether you believe that hysteresis is around the corner or not doesn't change your policy prescription. If you think that it hasn't clicked in to date but it might, that's an argument for greater stimulus now in order to stop it from happening. If you think that there's unlikely to be hysteresis and thus the cyclical explanation dominates, then obviously the unemployment should be susceptible to increased aggregate demand stimulus. So, in that sense, I think these arguments happily converge around the same policy prescription. And for me, this all, again, reinforces the view that the story of the economy is still one of inadequate aggregate demand. Thank you, Mr. Chairman.

MR. LACKER. Mr. Chairman.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. First, I'd like to thank Governor Tarullo for reading the Richmond Fed paper. Second, I'd like to point out that—in terms of the distinction I was making before between what the unemployment rate would converge to in the long run and the reference rate that's relevant for current policy—a shock that hits the economy today, if it's a structural shock that's permanent and long lived, it is going to affect the longer-term normal rate of unemployment. But whether it's permanent or transitory is irrelevant for whether it affects the policy-relevant rate today. See what I'm saying? It doesn't matter if it fades out right away or if it's going to last a long time. It could affect the policy-relevant rate today either way.

CHAIRMAN BERNANKE. How does that handle policy lags? Monetary policy doesn't work for a while.

MR. LACKER. I think that's orthogonal. I think that's tangential to this question. In the models, you've got policy lags. Policy takes effect over time, but it's still the case that you're carrying around this reference rate—President Bullard talked about a flex price equilibrium—and it's affected by both transitory and permanent shocks.

CHAIRMAN BERNANKE. Governor Raskin.

MS. RASKIN. Thank you, Mr. Chairman. My outlook has not changed materially since the July–August meeting. Maybe incoming data have been mixed, but forward-looking indicators still remain consistent with an economy growing in the near term in a range between 1½ percent and 2 percent. Similarly, the factors shaping the medium-term outlook have not changed significantly; the general contours of my outlook remain the same. Yes, some of the incoming data during the intermeeting period suggested modest increases in household spending and employment, and the household sector showed some further slight signs of improvement. But no data are yet showing a basis to believe that these modest increases will be sustained to such an extent that faster momentum might be expected. Indeed, other data, such as those for business spending and consumer confidence, remain soft. It is not yet obvious that this path, or even a couple of months of stronger-than-expected economic activity, could reduce the amount of slack in labor markets or alter the trajectory of expected inflation to a degree that would obviate the need for a further easing of monetary policy. Last week's employment report—payroll employment only 55,000 higher than reported in July, after taking into account revisions—does not suggest above-trend economic growth or a declining trend in the unemployment rate. It suggests, instead, that the unemployment rate is likely to move sideways with no sign of a substantial and sustainable strengthening in the pace of economic recovery.

And this unsatisfactory modal projection is what exists before even considering downside risks to the outlook. One particular downside risk that remains quite elevated relates to what we've been talking about—the depressed level of labor participation and the enhanced level of long-term unemployment. The decline in the labor force participation rate since the beginning of the recession is ominous, and although the Board staff predicts that over the next couple of years the labor force participation rate will flatten out, the recession, as Governor Yellen described, may well have permanent effects on the labor force participation rate, just as the high-pressure labor market of the late 1990s pulled people back into the labor force who had been excluded for a long time—only now, unfortunately, in reverse. In addition, with a substantial and growing proportion of unemployed workers having been jobless for long periods, we face an elevated risk that such a high level of long-term unemployment will persist long enough to permanently depress labor supply and potential output. Unlike downside risks emanating from the European crisis and U.S. fiscal policy—which, were they to occur, theoretically can be addressed with accommodative monetary policy after the fact—the potential hysteresis created by drops in the labor force participation rate and increases in long-term unemployment will prove intractable to address with accommodative monetary policy that isn't inflationary. So I find the particular downside risk of hysteresis to be especially pernicious because it's difficult to address after the fact. But, more optimistically, it is one downside risk that monetary policymakers do have some ability to mitigate prior to its occurrence.

Similarly, I wonder about the permanent or transitory nature of household and business expectations. The economic outlook appears damped by some form of pessimism. Look at the Michigan survey question on the proportion of households expecting unemployment to improve. Earlier this year, that number had recovered, but now it has dropped down again. Similarly, households' income expectations for the coming 12 months have hardly recovered at all since the recession despite the fact that actual income has somewhat increased. On the business side, expectations for business conditions six months hence as measured in the Empire State and Philadelphia Fed surveys have dropped back sharply again. In the case of the Empire State survey, they're back close to levels seen during the recession. Capital spending plans also don't look great. Surveys from the National Association for Business Economics show capital spending to have dropped sharply in the second quarter. Surveys from the National Federation of Independent Business show capital spending to be gradually rising, but still remaining at less than half of its pre-recession level. It's difficult to project whether these expectations will transition from being temporary blips to permanent shifts, but the fact that these expectations have tried to recover from the recession before but been knocked back, sometimes more than once, might be a factor that could keep households and businesses from getting too hopeful again. The longer we have an economy that looks bleak as far as the eye can see, the more this bleakness gets built into expectations. Households and businesses now see a recovery slow to materialize. They assume that things will get better because they always have, but then things don't get better. So households and businesses start to wonder if this is just a delay or if it's just the new normal. If they think it's the new normal, it could become just that. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Stein.

MR. STEIN. Thank you, Mr. Chairman. In terms of the outlook, I'm reasonably close to the consensus forecast you put forth, and just a shade more upbeat than I was at our last meeting—that is to say, maybe a tenth or two lower on the unemployment rate for 2013. I've interpreted the incoming data since the last meeting inclusive of the jobs report on Friday as approximately a wash and feel as though the situation in Europe looks just a bit brighter. So, overall, I would say it appears we're still about as "stuck in the mud" as we have been over the last several months, and I agree with Governor Tarullo's characterization that it's largely an aggregate demand phenomenon.

In trying to think about the factors that are leading demand to be so sluggish and about the channels by which monetary policy might be able to help, I've been struck by a few pieces of survey evidence. Now, they turn out to be the same pieces of survey evidence that Governor Raskin was just referring to, thereby scooping a fair portion of what I was going to say.

MS. RASKIN. It happened to me for a long time. [Laughter]

MR. STEIN. I'm going to just start juggling next time. Anyway, just to underscore, really—on the Michigan survey, we had a very interesting briefing a few weeks ago by Claudia Sahm, in Research and Statistics, who'd been looking carefully at these data. And the gist of the finding is, not only is it low, but also, basically, it fell from 2007 to 2009, and it really hasn't recovered since. Moreover, it's not well explained by household characteristics—there's a large negative residual there in a way that seems different from previous experience. In a similar vein but much less scientifically, I looked at a different survey, the Conference Board's Consumer Confidence Index, which also fell in August. Very much to your point, they do a breakdown of the index into views of the current situation—a present situation index—and a future expectations piece, and all of the drop was coming from the future expectations piece. So I was curious. I went back and compared it with previous peaks of unemployment that we've had. The ones I looked at were May 1975 and December 1982. What you see is, at those times when unemployment was also very high, if you asked people about the present situation, it was dismal, but if you asked them about future expectations, it was not nearly so bad as it is today. These are just a couple of data points, but they're consistent with what I take to be the spirit of Claudia's work, which is, it's as if, given where we are today and given the current situation, people feel the future is considerably more pessimistic. And again, I think this is pessimism as opposed to uncertainty, which has a slightly different implication because it's less clear that, if the fiscal cliff resolves itself, this kind of thing gets fixed.

Another survey on the business side: I just yesterday got a survey that Duke University does in conjunction with *CFO* magazine, where they talk to 900 CFOs of U.S. firms. One of the new questions in there this time—I think, actually, Steve Sharpe helped them design this question—asked the firms if they would in any way change their capital spending plans for a given change in interest rates. Here, it is strikingly like a large-sample version of President Fisher's CEO conversations, where only 3 percent of the firms say they would in any way change their capital spending for a 50 basis point movement in rates. Now, I take Vice Chairman Dudley's critique here. First of all, in this one, unlike consumer confidence, we don't have a benchmark, so I don't know what people would say in normal times. But as a Bayesian, I'm inclined to think that there's something going on here, even though I wouldn't say it's a huge thing.

So, putting this together—now, this part is very impressionistic, but I guess the overall feeling I get from looking at these various pieces of survey evidence is the sense that when we make a policy move now, we're playing more for whatever effect we can have on consumer and business confidence than for the normal hydraulic effect we would have on financing conditions per se. That is to say, we may know more about how to move interest rates than about how to influence confidence, but it's the latter that, in some sense, is the dragging anchor. This is not an "always" situation. I think it's, in some respects, the opposite of where we were in 2009 at the time of QE1, when really the thing to do, the imperative, was to fix financing conditions, and people would figure it out one way or the other.

I don't know if this has any implications for policy. It strikes me that, if this is right, it should color particularly how we think about the communications aspect. I, like many others here, believe that the need for action is clear, but I think, less so than usual, the bond market is not really our primary audience. So maybe when we think about policy, we want to worry less about putting together the biggest, most inclusive package that has the maximum bond market impact, and worry more about, how do we deliver a simple and coherent message that normal humans can understand, as opposed to mainly Fed watchers? I think we'll have a chance to talk about some of these issues. I'm not sure if this concept is fully operational, but I have this conviction that we really have to think about our audience as being business managers and households—more so than at other times. There's so much talk about, what are the Fed watchers expecting us to do? And I think we don't want to get overly caught up in delivering just to them. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Powell.

MR. POWELL. Thank you, Mr. Chairman. It does seem to me that there's a decent degree of agreement, or at least overlap, about the status and outlook for the economy, and that the real question is, what can monetary policy do, and what should it do going forward? And I'm going to defer that to tomorrow. In that spirit, I propose to deprive the Committee of my detailed recitation of intermeeting events and proceed to the executive summary part of it, which is, really, that we've been on a round trip. We had positive news early in the intermeeting period, which was a trip to hope and back, and it left me very much in the same place where I started: I see an economy with a substantial amount of slack that is growing at about 2 percent;

inflation that is bouncing around just below 2 percent on commodity effects, but close to target; and better financial conditions for now. But as Europe improves, the fiscal cliff begins to approach in a serious way, and what I am hearing is that there is little to no hope of action in the lame duck. Of course, that depends on the arrangement of forces after the election, so it's completely unknowable. Ultimately and most important, there is little, if any, reason to expect significant improvement in job creation in the coming months.

My conversations with a group of about 10 diverse industrial companies—this is not autos, so it's away from one of the real strengths. The other parts of the industrial sector, let me say, are pretty weak, and they strongly confirm that last point about employment. Outside of a couple of bright spots like housing and light vehicles, it's soft everywhere, especially in Europe. Big customers are postponing orders; they're not canceling them. It's nothing like from 2008 to 2009, but the softness that began about six months ago is now the new normal for these companies. The game is about share gain and taking out costs. It's a low-growth environment. All new projects are on hold, and there is no hiring. In fact, the entire goods-producing sector of the economy lost 16,000 jobs in August. If you look just at the manufacturing piece of that and go back over a quarter, there was a net creation of 15,000 jobs, and two-thirds of that is auto. I want to say that you hear, "Uncertainty, uncertainty," from all of these people, but they're really talking about two different things. These are not people who roll over at 4:00 a.m. to check Twitter for the latest news from Karlsruhe on the German decision. A particular company in the beverage manufacturing business had a big order from a German OEM for a beverage line, and that order has been pushed out at least a quarter. That's uncertainty. It's about demand. As far as Europe relates to these companies—and these are pretty global companies—it's really focused on demand. The fiscal cliff is something different. There's a sick feeling in people's stomachs that this is really bad, that this is our country not being able to function, and it's like last August on steroids—not that there's anything wrong with steroids. [Laughter] They've been very helpful to me lately.

Let me say where that leaves me. The question that looms is—and I'm going to, again, leave aside monetary policy—when do we break out of this? And I really do believe that we will. We always have. I can remember many of these cycles where you really wonder if this is it and we're never going to get out. I really do feel that if you look at our own projections, essentially, all of us project that we're going to have those 3 percent, 4 percent catch-up years. They're now scheduled for 2014 and '15, but really, there's a ton of uncertainty around that. So I'm going to share this highly anecdotal evidence in an effort to end on something of a high note.

I talked to both private equity investors and hedge fund investors, and it's always very interesting to compare the two of them. The hedge fund investors are in a really difficult environment. They're traders who get marked every quarter, and, in a world that has very few ways for them to make money, they're generally very conservatively positioned, and their investor base seems to be fine with that. Private equity firms are feeling quite differently about things. They basically think about creating value over a three- to five-year period, and many PE firms right now, large and small, think that this is a great time to buy. In fact, a string of large industrial properties, which would ordinarily have been expected to trade to corporations, has traded to private equity. There are three reasons why the private equity firms are feeling aggressive. First, their natural competitors, these big companies, are all frozen on the sidelines, sitting on their cash, ruled by risk-averse public boards, and out of the game. If anything, they're going to wind up being net sellers as the recession goes on. Second, leveraged finance markets, as Andreas was discussing this morning, are very attractive, with low rates and issuer-favorable terms that are just about reminiscent of the bubble days, and all of that provides critical flexibility in case deals don’t go well. Third—and really the one that’s relevant for this policy exercise—private equity firms think about the medium term, and they see the future as better. These large private equity firms are completely global; they each own hundreds of companies in every major economy and in every vertical; and they systematically mine the data that they get and they’ve got the talent on board to do that. This is not the private equity industry of 20 years ago. So they’re seeing something. They really are. It’s pretty consistent, and what’s holding back the volume of deals is only supply. There was quite a similar pattern back in the early 2000s after the dot-com crash. In that period, as many will recall, the S&P lost about half of its value. We had a very soft economy in 2001 and 2002, a string of corporate accounting scandals leading to Sarbanes–Oxley, and a deflation scare in 2002. Across the board, net sellers of businesses were on the sidelines, and the private equity firms were extremely aggressive during that period. Those deals turned out to be, in many cases, some of the best investments in the history of the industry. It turned out to be a great time to buy. I would also add that they were net sellers in 2005 and 2006. So the question is, why take any signal from this, right? I realize it doesn’t tell us anything at all about the next few quarters. But I will say that it’s a bit of a signal to me because this is a group of investors with very successful and, in some cases, long track records that were looking ahead to strong growth in the medium term, and they were willing to put more than just an opinion on the line in that belief. Thank you, Mr. Chairman.

VICE CHAIRMAN DUDLEY. Could I ask the Governor a question? Geographically, do they express any preferences about where they want to have the business?

MR. POWELL. Yes. The hedge funds are, as a staff memo from Matt and Fabio pointed out, unanimously not believing a long-run solution in Europe. They’re just very pessimistic. I would say the private equity firms are in the same place. You see very little private equity interest in Europe. There's great uncertainty and that kind of thing. In the United States, you see a lot of activity—again, restrained only by a lack of supply. When there's a good company that's out there, the bidding is furious, and they're all saying, "This is the time." This happened 10 years ago. And Asia—I can't really give you any call on that.

VICE CHAIRMAN DUDLEY. Thank you.

CHAIRMAN BERNANKE. Okay. Thank you very much. I see I have two hours now. [Laughter] Let me summarize and just make a few comments. Participants didn't see much change in the outlook, on net, during the intermeeting period. Economic growth is still sluggish. The near-term growth outlook is modest, and the recovery is in a holding pattern. Output and employment growth are falling short of levels needed to reduce unemployment. Headwinds for recovery include fiscal policy, deleveraging, tight credit, and international factors, including not only Europe, but also slowing in China. Some felt that we risk a lost decade, but another view is that recovery has been consistent with previous experiences with banking and financial crises, à la Reinhart and Rogoff.

Recent labor market reports have been weak, although unemployment has fallen in the past year. Some decline in unemployment is due to reduced participation, and employment-to-population ratios are at post-trough lows. Hysteresis is a risk and a possible rationale for action. Retail sales data were a bit better, and households continue to deleverage, but consumer confidence is soft, and people are unusually pessimistic. Real estate activity is improving in a number of Districts. Sales are up, permits and prices are also rising, inventories are low, and delinquencies are falling. Rising prices may stimulate further sales. There is some strength also in commercial real estate.

With regard to measurements of slack, there was, again, discussion of the issue. Staff analysis concludes that slack is high, and it was noted that inflationary pressures remain low. Some argued that measurements of slack should distinguish the longer-run normal rate and the current equilibrium rate, or natural rate, which varies over time. Discussion of the structure of the labor market noted that routine jobs are disappearing, but declining dynamism may be more chronic than cyclical, and the long-term unemployed are not completely shut out of the labor market.

Uncertainty remains an important issue for businesses, holding back investment and hiring. Job growth is particularly weak. Small businesses are concerned about taxes and regulation. The fiscal cliff is a particular risk, as is electoral uncertainty. Some research suggests that higher uncertainty acts like an aggregate demand shock. Policy uncertainty is a headwind, but not the only one, as the Bloom index suggests. In agriculture, the drought will impede GDP growth over the next several quarters. However, farm income has been supported by high prices and crop insurance. Energy activity is expanding. Manufacturing reports are mixed. Auto sales are up. Firms are focused on gaining market share, but among financial firms, private equity is more optimistic and aggressive.

In the financial sector, long-term interest rates are very low, with negative real yields, but it was noted that the equilibrium real yield in the economy may also be negative. Financial stress indexes are not particularly worrisome, and financial froth has not been reported. Firm balance sheets are strong, and credit supply is available when loan demand strengthens. The ECB's actions have again helped calm Europe, but further progress requires action by governments. Risks remain serious, and economic growth on the Continent should remain weak.

With respect to inflation, the outlook has not changed much. Inflation seems likely to remain near or below 2 percent in the medium term. Low inflation is also predicted by DSGE models. Businesses are not particularly concerned about their costs. Inflation expectations are stable, and there's little evidence of disinflation.

There was a good bit of premature discussion of monetary policy, which covered, among other things, the effectiveness of possible actions, the risks and benefits of actions and inaction, and issues of communication.

Any questions or comments? [No response] I come after Governor Powell, so I have an even more difficult task. I'll try to respond a little bit to some of the comments that were made today. The basic outlook is, as everyone has pointed out, that we have an economy that is growing very slowly, at or below trend, and, by the usual Okun's law relationships, we're not seeing very much progress in the labor market. Unemployment is about the same as in January, and I note that aggregate hours are also only about ½ percent higher than they were in January. President Bullard noted that there was a period of improvement in the unemployment rate around the turn of the year. One interpretation of that is that it was a one-time payback for the rapid drop in jobs during the recession.

In any case, economic growth, if anything, is slowing relative to earlier in the recovery. Now, how do we explain, understand, and interpret the very slow growth we've been seeing? That was also discussed in the go-round. One possibility is that there's been a once-and-for-all level shift, that we've dropped down to a lower level and are continuing at trend at about the earlier pace. So the suggestion there is that we are close to potential and output growth going forward will remain trend-like. This interpretation does not look implausible if you eyeball graphs for GDP or consumption growth. It is consistent with some earlier episodes of financial crisis, and, among others, the IMF has given this perspective a little bit of support. The alternative interpretation held by others around the table is that we remain well below potential. I think it's perfectly possible to rationalize that. First, there have been ongoing headwinds, both endogenous and exogenous. The endogenous ones include financial balance sheet, financial accelerator types of effects and the exogenous ones include Europe, fiscal, and the like. So there have been continuing headwinds, and, of course, sticky prices—as was pointed out—are part of overlapping price-setting coordination issues and the like. I think both of these interpretations are conceivable, and they probably both have some truth in them. As President Bullard mentioned, I don't think it's very likely that we'll return to the pre-crisis trend.

Now, on the permanent drop in the level, I'm a little bit bemused by the appeal to Reinhart–Rogoff because theirs is a strictly reduced-form observation, it has no structural interpretation, and it could involve any number of reasons, including uncontrolled factors such as poor policymaking. So I don't take that as a very convincing answer unless I understand better what the rationale is that is explaining the slower growth. The second story does provide a rationale, does provide an explanation. Notably, labor utilization does appear to be exceptionally low, and I won't repeat Governor Tarullo's comments, but Eddie Lazear, who I don't think is necessarily inclined to find a cyclical source of unemployment, is just the latest of the majority of studies in this area to find a significant cyclical component. It's true that the short-term equilibrium unemployment rate can vary. There's no question about that. Staff members have tried to include some of that in their analysis. But we need a story. It's possible, based on that kind of analysis, that the equilibrium unemployment rate is above the longer-term natural rate at this point. We don't know. I want to emphasize that on all of these things—on the economy, on the effects of policy—we're incredibly uncertain, and we have to make decisions under uncertainty. We can't let waiting for certainty be the condition for taking any action. We have to make the best choices we can, given a very uncertain situation. So, in that kind of world, of course, there are type I and type II errors. This is similar to what the Vice Chairman was saying. We are close to our inflation objective. We're quite far from our unemployment objective, at least the longer-run unemployment objective. Arguments have been made that staying far away from the longer-run unemployment level for a protracted period has its own costs besides the temporary costs of the cyclical unemployment.

In terms of our policy tools, I do agree with President Plosser that having a good grip on the costs and the risks of those tools is very important, and that's one reason why we have been, in some ways, not as quick to use the tools as we might have been if we were using short-term interest rates as our policy tool. But I feel that I'd like to thank the staff for the work that's been done over the last couple of intermeeting periods. I think the work on market functioning, the work on financial stability—all of those things have made me more comfortable, at least, that we can manage the costs of these unconventional policy tools.

Now, I might as well take the advantage to talk a little bit about the policy tools and some of the issues that have been brought up. I have great admiration for Michael Woodford. I hired him, I coauthored with him, I was his colleague for many years, and I think he's a terrific economist. And I think a lot of what he said in his paper at Jackson Hole was very useful. I do think that he understates the consensus in the literature about the impact of unconventional tools, particularly asset purchases, on the economy. I won't go through an extended discussion, but I'll make just a couple of observations on the empirical side. He focused primarily on the event-study evidence. He came to that with a Modigliani–Miller type of financial markets perspective, which has a lot of theoretical appeal but obviously is not empirically very successful. It doesn't explain a lot of premiums, a lot of volatility, in actual financial markets. So, using that perspective, he was inclined to dismiss the results from the event-study research. But this research does tend to find, almost uniformly, that asset purchases do have effects on financial conditions, notwithstanding the fact that it's very difficult to measure the surprise component of a change in asset purchase policy. I was very much involved in the literature on measuring the effects of surprises in the federal funds rate, and there at least you have a futures market that can tell you what was expected. Obviously, that's very difficult in the case of asset purchases, and therefore you would expect the event-study literature, if anything, to bias down the findings, the impact of asset purchases on financial conditions. But beyond that, in looking at only the event studies, Woodford's paper ignores two other major literatures. One is a substantial literature on the effects of relative supplies of Treasuries on term premiums. I would cite, for example, Kuttner (2006) and Greenwood and Vayanos (2010), and this appears also in work by Gagnon, Hamilton and Wu, and others. And a second line of research is based on no-arbitrage term structure models, such as the Li and Wei paper that has been used a lot here at the Board. So there have been a number of different approaches, and again, I do think that the bulk of the evidence is that these tools do have effects on financial conditions. Obviously, there are issues about the transmission to the real economy, and I take some of the points that have been made, but there are factors there working in both directions. For example, to the extent that credit markets are becoming less tight—standards and terms are becoming less restrictive—lower interest rates will have more effect rather than less effect.

The central message of Woodford's paper, though, which I do agree with very much, is that expectations management is really critical to managing monetary policy at the zero bound. And I agree with Governor Stein that the language is very important. How we present what we’re doing is going to be very important. In particular, and we’ll talk about this tomorrow, trying to signal that the Fed, rather than being pessimistic, is determined and that the Fed will be supporting the economy. We’ll be there. We’ll be a backstop. We’ll provide confidence. I think that’s a very important part of what our communication should be about. Personally, I’ve learned something from both Woodford’s discussion and that discussion around the table about how we should be talking to markets and to the public. And a very small thing, but in my press conference statement tomorrow, I’m going to try to talk a little bit more to the average person than I have been, and try to explain what we’re doing and why it’s helpful more broadly. So I do expect the expectations channel to be very important, but I think I disagree that by itself it’s sufficient.

The main problem is that we’ve already said that we’d keep rates low for three years. How much further out can we go? For example, Woodford argues that a nominal GDP target, if adopted, would allow us essentially to make commitments many years in advance. I’d like to actually raise the question once again to the group because we looked very carefully at nominal GDP targets more than a year ago now, I think, and there was really no support at that time. The basic argument is that, in order to work, people have to be persuaded that you’ll stick to this target for a very extended period, many years, even though a nominal GDP target may involve a period of inflation well above your normal range of inflation. Moreover, of course, there’s also the risk that, if that happens, then inflation expectations will become unanchored. So I think that was the case against nominal GDP targeting. A few people have talked about it. If I’m missing something and you want me to hedge more when I’m asked about it tomorrow, which I’m sure I will be, I’d like to hear that tomorrow because, again, the take of this group a year ago was that nominal GDP targeting, price-level targeting, and so on, while useful, are limited in that they require credibility very far in the future. And that's why I think one of the benefits of asset purchases is that they can be used as a concrete action, as a commitment device, to help strengthen the expectations effect of announcements and communication so that they really are complementary—more than we have given them credit for and more than I really said in my remarks at Jackson Hole.

So there are a lot of interesting issues here. I think what I'd like to end on is just to come back to the point that I know we're all in debating mode. We want to persuade our colleagues, and that's certainly laudable, but the fact is that nobody really knows precisely what is holding back the economy, what the correct responses are, or how our tools will work. And I believe we all have to try to think hard about, in a Bayesian context, using information that we have and thinking about both the risks of action and the risks of inaction, what the best choices are, acknowledging and understanding that whatever we do, it's going to be a shot in the proverbial dark. I think, really, it's going to be very important for us to pull together, in a sense, to support whatever efforts that we make. Any questions or comments? President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. Thanks for those remarks. I found them very useful in my own thinking. I, too, thought the staff's work on LSAPs over the last couple of intermeeting periods has been really helpful, but even more broadly, I certainly came to the question of the efficacy of the LSAPs from the same Modigliani–Miller framework that Mike sketched, and I found the empirical work on the asset pricing side very informative. It certainly shaped my thinking moving away from the Modigliani–Miller framework. Our statements, alternative A and alternative B, make reference to continuing to study the efficacy of the LSAPs. Part of that will have to be ongoing work and ongoing study of that linkage between what's going on in the financial markets and how that's getting through to the real economy. At least for me, that's a major source of uncertainty still.

CHAIRMAN BERNANKE. Let me make one comment on that, which is, you sometimes hear the following kind of statement: "Tight monetary policy is not causing the problem; therefore, easing monetary policy won't help." That's a non sequitur. If, say, tight fiscal policy is the problem, if that's the reason the economy is growing slowly, it doesn't mean that monetary policy can't mitigate that. So I think that kind of argument needs to be looked at very carefully. We are doing a lot. We are absolutely doing a lot. There's no question about it. Nobody can blame the Federal Reserve fairly, in my opinion, for being tightfisted and stingy and not willing to take risks to try to support the economy. But the fact that it's not our fault that the recovery is slow doesn't mean that we can't try to help if we think, in fact, that the benefit–cost ratio is appropriate.

What I'd like to do is let Bill English do his introductory remarks for tomorrow. I'm in your hands. The reception starts at 5:30. Would people like to continue with the policy round, or should we just have Bill and then start fresh at 8:30?

PARTICIPANT. Break.

PARTICIPANTS. Fresh.

CHAIRMAN BERNANKE. Fresh. Okay.

MR. FISHER. Governor Powell needs to take a nap.

CHAIRMAN BERNANKE. He's not the only one. [Laughter] All right. We'll ask Bill to make his opening presentation and take any questions, and then we'll recess for reception and dinner. Bill.

MR. ENGLISH.[7] Thank you very much, Mr. Chairman. I think the policy alternatives are being handed around right now. They are the same as the ones we distributed earlier this week. I guess I'll wait just a moment until everybody has them.

The first page of the handout illustrates the effects of three different policy paths. The black solid lines in the charts depict the experimental consensus forecast, which is conditioned on unchanged policy. The red dashed lines show the results of a more accommodative policy, one that's consistent with an alternative B that shifts back the date in the forward guidance to mid-2015 and, in addition to $30 billion of MBS purchases a month and completion of the MEP this year, involves buying longer-term securities at a rate of $75 billion a month through the middle of next year. The balance sheet implications of this alternative are shown at the top right. So long as the public correctly anticipates that the Committee will follow this policy, the result is a more rapid economic recovery that takes the unemployment rate to 6.3 percent by the end of 2015, about ½ percentage point lower than in the consensus baseline; the inflation rate (shown at the bottom right) is a bit higher but remains near your 2 percent longer-run objective.

The blue dotted lines show the results of an even more accommodative policy; this corresponds to alternative A and includes a new $1.25 trillion LSAP and a shift in the date in the forward guidance to mid-2015. In this case, the unemployment rate falls to about 6.1 percent by the end of 2015, and inflation runs a little higher than under the other policies.

If, in reviewing the outlook under the unchanged policy, the Committee views the likely outcomes for employment and inflation as inconsistent with its mandate, it might choose to ease policy by strengthening the forward guidance in the statement and engaging in additional asset purchases. Alternative B, on page 5, may offer the Committee an attractive approach to moving strongly in that direction at this meeting, but without committing now to a large, discrete purchase program. Alternative B completes the MEP and starts buying additional MBS, with an explicit proviso that the Committee will closely monitor developments "in coming months" in deciding whether to continue the purchases and scale them up.

The first paragraph of alternative B updates the description of the economy to reflect the mixed incoming information over the period. The second paragraph differs from past statements by expressing the medium-term outlook as a conditional forecast, noting that the Committee is concerned that "without further policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions." Then the third paragraph announces that the Committee will complete the MEP as planned and will commence purchasing MBS each month. The options you're offered here are rates of $30 billion or $40 billion a month. The higher rate of purchases would have the advantage of providing more impetus to growth, but some policymakers may prefer the lower rate,

[7] The materials used by Mr. English are appended to this transcript (appendix 7).

perhaps to allow for some future ramping-up in reaction to shocks, such as a full encounter with the fiscal cliff or a worsening of the problems in Europe. Staff work suggests that purchases even at the higher pace would be unlikely to cause problems with market functioning.

The fourth paragraph signals another decision point coming in the future. It says that if, “in coming months,” the “outlook for the labor market does not improve substantially,” the Committee will continue its MBS purchases and undertake additional asset purchases “as appropriate until such improvement is achieved in a context of price stability.” The paragraph offers an option to include the possibility of employing other policy tools as well. Participants may find that additional reference attractive if they think that changes in forward guidance, new lending programs, or a reduction in the interest rate paid on reserves might also be appropriate in the future. The paragraph concludes by noting that, as always, the likely efficacy and costs of asset purchases will be taken into account as the Committee calibrates its purchases.

In paragraphs 5 and 5′, the statement offers two options for restating the forward guidance. Both versions begin by putting the Committee’s decision with respect to the forward guidance in a more positive light and in the context of making progress toward its objectives by indicating that, “to support continued progress toward maximum employment and price stability, the Committee expects that exceptionally low levels of the federal funds rate will remain appropriate for a considerable time after the economic recovery strengthens.” Paragraph 5 then continues by shifting the date of the expected commencement of policy firming out to mid-2015. By contrast, paragraph 5′ replaces the calendar date with new conditional language that ties the timing of liftoff to the path of the unemployment rate, subject to constraints on inflation and inflation expectations. Some participants may see this conditional language as preferable to offering a specific date because it will allow market participants to adjust their expectations for liftoff flexibly as information bearing on the economic outlook is received.

The immediate market reaction to alternative B is hard to predict, in light of the policy expectations currently in the market and the decision point that would be highlighted in paragraph 4. Primary dealers appear to place high odds on a new program of securities purchases—generally expected to increase Federal Reserve holdings by around $500 billion to $600 billion by the end of 2013—and some see it as likely to be described in flow terms. But it is not clear how they would gauge the likely scale of purchases under alternative B. An alternative B in which the Committee decided over coming months to purchase $75 billion in securities per month during the first half of next year would be roughly equivalent to the $500 billion to $600 billion now expected. With most outside forecasts anticipating only slow improvement in labor market conditions over coming quarters, the market may come to expect the purchases to exceed this amount. With regard to the forward guidance, “mid-2015” is in line with expectations, but the language in paragraph 5′ might be seen as pointing to even more accommodation. On balance, alternative B might prompt a modest decline in longer-term interest rates, higher equity prices, and a depreciation of the dollar. However, the magnitude and persistence of the effects will depend importantly on what investors see as the implications of the statement for the ultimate size of the SOMA portfolio, as well as which version of the forward guidance the Committee chooses.

Alternative A, on page 3, may appeal to members who see the Committee as having persistently missed its dual objectives in the same direction and believe that, with the fiscal cliff looming and uncertainty about Europe unresolved, the downside risks to economic growth are very large. They may believe that the Committee needs to send a clear signal that it is willing to substantially increase its holdings of securities and extend the forward guidance. They may be concerned that the effectiveness of alternative B would be undermined by investor uncertainty about both the Committee's decision to extend purchases beyond the next few months and the ultimate size of such purchases.

The first and second paragraphs of alternative A are close to those of alternative B. The third paragraph of alternative A announces a new lump-sum LSAP program, comprising $750 billion of longer-term Treasuries and $500 billion of MBS, at a combined pace of about $75 billion per month through early 2014. The fourth paragraph clarifies that the new program replaces the MEP and that the Committee's reinvestment policy will continue. The fifth paragraph, as in alternative B, extends the forward guidance to mid-2015. Alternative A also provides possible language for a 10 basis point reduction in the IOER rate.

Because $1.25 trillion lies well outside the range of most market forecasts for a new LSAP program, alternative A would likely lead to a notable drop in longer-term interest rates, as well as higher equity prices and a lower foreign exchange value of the dollar. These effects could be increased somewhat and accompanied by some decline in short-term interest rates if a reduction in the IOER rate were included.

Alternative C, on page 7, might appeal to policymakers who see the recent economic data as consistent with the view that the economic recovery is on a sustainable path and proceeding about as well as could be expected given the effects of the financial crisis. They may see the elevated size of the Federal Reserve's portfolio as well as the recent rise in oil and other key commodity prices as implying some upside risk to inflation. As a result, they may judge that there is no need to ease policy through a change in the forward guidance or a new LSAP program, and they may even anticipate that the funds rate will need to be raised significantly earlier than markets anticipate. Other participants may have views that are shaped less by concerns about the outlook, but believe that the costs and risks associated with additional asset purchases are likely to exceed the benefits in terms of improved economic conditions.

The first paragraph in alternative C is somewhat more positive about economic developments than in alternatives A and B. The second paragraph is similar to the August statement but projects somewhat stronger growth and higher inflation. There are two versions of paragraph 3: The first maintains the "late 2014" forward

> guidance, with an option to change the date to "late 2103"; the second version, labeled 3′, replaces the date-dependent forward guidance with language describing the factors the Committee would consider in determining the appropriate time to raise the target federal funds rate. The fourth paragraph is similar to the August statement, except that it provides a more balanced outlook for policy.
>
> The markets would be greatly surprised by a statement along the lines of alternative C, especially if it signaled an earlier rise in the federal funds rate. Interest rates would likely jump higher, and stock prices could drop sharply.
>
> Draft directives for each of the alternatives are presented on pages 9 through 12 of your handout. Thank you, Mr. Chairman. That completes my prepared remarks.

CHAIRMAN BERNANKE. Thank you very much. Are there any questions for Bill? President Fisher.

MR. FISHER. Mr. Chairman, if I could ask Simon and the Desk—again, just to have a factual grip here: What kind of market penetration will we have on mortgage-backed securities under the program of $30 and $40 billion per month? You mentioned this earlier. I apologize.

MR. POTTER. That's the flow rate relative to gross issuance.

MR. FISHER. Yes, sir.

MR. POTTER. If we're about one-third right now, if we added $30 billion, we'd be about 60 percent; at $40 billion, we're about 70 percent. But in terms of the stock, I think that would—what was that, Lorie?

MS. LOGAN. I don't have the exact numbers for the particular scenarios, but the stock would be 25 percent under the $30-billion-per-month pace, and it would be slightly higher under $40 billion per month. I don't have that exact number, and it depends on the length, but just for a maximum, under the $2 trillion scenario that we had run, the maximum was 36 percent. So that gives you the very upper bound.

MR. FISHER. And if we assume that we finish the MEP at year-end, what will be our duration?

MR. POTTER. The duration will be eight years, but we'll own quite large amounts of some of the longer-duration securities. That's in the Treasury part of the portfolio.

MR. FISHER. And of some of the particular issues, we have significant—above 70 percent. Is that correct now?

MS. LOGAN. We've a 70 percent per CUSIP cap. So we can't buy any—

MR. FISHER. That's our cap per CUSIP?

MS. LOGAN. That's the cap.

MR. FISHER. Thank you.

MS. LOGAN. We've only hit the cap on ten issues, I think—the number that we've hit the maximum 70 percent on. And most of those were old bonds in very small size.

MR. FISHER. Thank you very much.

CHAIRMAN BERNANKE. Other questions? President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. Bill, I just wanted to clarify since we have a few minutes here. When we do this on page 1 here, there are three lines, and then alternative B has a couple of options in it. Are you saying that this is a rough guide to what alternative B would deliver?

MR. ENGLISH. Yes.

MR. BULLARD. Or do you feel as though it wouldn't make too much difference which option is chosen within the subgroups that are proposed? Or is it just that it'd get too cluttered?

MR. ENGLISH. What we tried to do here was write down something that seemed plausibly in line with alternative B. Alternative B has a couple of different choices that the Committee would have to make. One is, later on, what do you do in a few months after you've observed the economy? Do you continue purchasing into next year? We've assumed that you continue purchasing for about, I think, seven months in this. And then the other question is, what do you do with the forward guidance? We've assumed, basically, that the forward guidance goes out to mid-2015 and is compelling—everybody believes it. It's possible, as I mentioned, that because market participants' sense of the outlook is a bit weaker than our sense of the outlook, they may read that 6½ percent unemployment rate as pushing the liftoff even later. If that were picked up, then you'd get a little bit more impetus to the economy out of that, but we've not modeled that here.

MR. BULLARD. Okay. And the other thing—I've been concerned about the withering of alternative C here. Alternative C isn't mentioned in the graphs.

MR. ENGLISH. Alternative C would be, as long as you left the liftoff date unchanged, pretty similar to the consensus forecast. What I'm taking out of that is the sense in the words in alternative C that might hint that things could move more quickly than that. So the straight consensus forecast is no change in the forward guidance, no additional purchases beyond the end of the year. That broadly is consistent with alternative C but maybe doesn't quite get the sense of what the words in alternative C could mean to market participants.

MR. BULLARD. Well, when you describe it, you say, "Markets would be surprised." I think that's accurate—they'd be very surprised by a statement like that—and that you probably would have some effect. Plus, if we were going in that direction, which I guess we're not, you'd have the possibility of moving up the date of liftoff.

MR. ENGLISH. Right.

MR. REIFSCHNEIDER. One important point here: The black line—the consensus forecast—implicitly has in it a significant disappointment for the market because they pull back their expectations for liftoff to late 2014, and they remove their expectations of any further expansion of the portfolio.

MR. BULLARD. I see. So I should read this as "Consensus forecast/alternative C."

MR. ENGLISH. Roughly.

MR. BULLARD. Roughly speaking. Well, I guess, Mr. Chairman, I have a concern whether we have three options that are live options. And I think it's been hard while the Committee has been trying to think about ways to ease, and when the Committee shifts in the other direction, the same thing will happen. But I think you want to have some things that are a little bit tighter, a little bit easier, and might actually have a chance of—

CHAIRMAN BERNANKE. We circulate this and ask whether it spans the range of views so, of course, we always welcome suggestions.

MR. BULLARD. Well, it's up to you. But if you try to span the range of views, you might have to put something on the table that's not going to be adopted. But from my point of view, I'd like to see three live things that we could do and things that we might be able to maneuver around.

CHAIRMAN BERNANKE. The other way we've used the alternatives, of course, is to try out different language or alternative language. And in the past, we've combined, mixed things together.

MR. BULLARD. Yes.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. I have two questions. One is for you, Bill. I'd like your help with understanding the second sentence in B(4). I'm having trouble with it. I don't think I understand it correctly, particularly the role of price stability. So let me tell you what I think it says, the way I read it. It says, “If the outlook for the labor market does not improve substantially” in coming months—so, if that happens—then we’re going to do X. So X, I think, is, as I read this, “undertake additional asset purchases . . . as appropriate until such improvement is achieved in a context of price stability.” As I think about that, if that improvement is achieved but it’s not in a context of price stability, that seems to say to me that we’re going to still keep purchasing assets. Have I got this wrong?

CHAIRMAN BERNANKE. I want to defend Bill because he pointed out this problem.

MR. LACKER. I actually pointed it out to him yesterday.

CHAIRMAN BERNANKE. You pointed it out to him. Okay.

MR. ENGLISH. You’re not the first.

CHAIRMAN BERNANKE. We have poetic license here.

MR. LACKER. Right. You don’t mean that literally, right?

CHAIRMAN BERNANKE. It means that we’re looking for improvement in a context of price stability. If we see improvement without price stability, that’s not a good thing, and we won’t continue purchases.

MR. LACKER. But this says you’re going to wait until you get improvement with price stability.

CHAIRMAN BERNANKE. I think it’s clear what—

VICE CHAIRMAN DUDLEY. It’s “subject to.” That’s really what it means.

CHAIRMAN BERNANKE. It’s “subject to.” When we actually clarify this, assuming we go ahead and do more in January or whatever, we’ll be a little clearer in this kind of language here.

MR. LACKER. All right. The second question I have—and I probably should have asked this during our first agenda item. I've asked this at times in the past. On the table is a flow of purchases of mortgage-backed securities. I've asked in the past about the thought experiment of buying mortgage-backed securities versus buying an equivalent amount of U.S. Treasuries. What I've asked about is, all right, comparing those two options, undoubtedly your forecast, as you've said, is that mortgage-backed security yields will be lower with purchases of mortgage-backed securities than with purchases of Treasuries, and that mortgage rates will be lower. Now, my gut instinct is that some other rates will be higher. And I've asked about this in the past, but did you do any work on that this time?

MR. POTTER. Which rates?

MR. LACKER. Aren't other rates going to be higher if we buy mortgage-backeds rather than Treasuries? Because presumably, that means Treasury rates will be higher than they otherwise would be. Presumably, some other rates are linked to Treasuries and not mortgage-backed securities, and presumably, they're higher. Isn't there some other rate that's going to go up if we buy mortgage-backeds rather than Treasuries?

MR. ENGLISH. Not go up, but go down by less.

VICE CHAIRMAN DUDLEY. Go down by less.

MR. ENGLISH. I think that's right.

MR. LACKER. Oh, okay. Well, no—but, see, I'm asking to compare buying X amount of Treasuries with buying X amount of mortgage-backed. So rates go down—

MR. POTTER. President Lacker, we are still buying Treasuries under the MEP in this program.

MR. LACKER. Yes, I know. But instead of buying $30 billion of mortgages, buy $30 billion of Treasuries.

MR. ENGLISH. I think the answer to your question is in table 1 in the options memo that we sent, which had an experiment where you do $500 billion of Treasury purchases or $500 billion of MBS—just one or the other. The term premium effects are a little bit smaller if you buy the MBS, so Treasury yields decline by less. They still decline. It's still a purchase of a longer-term security and still taking duration out of the market and still putting downward pressure on longer-term rates, but by less. The mortgage rate goes down by more if you buy MBS than if you buy Treasuries, because you're pushing MBS down more and mortgage rates down by more. And our estimate of the effects on inflation and output are similar in size. They're a little smaller for the MBS purchase, based on our modeling and our assumptions, than for the Treasury purchase, but they're in the same ballpark.

MR. LACKER. So what other rates go down by less or are higher because you've been tilting toward mortgage-backeds?

MR. ENGLISH. In FRB/US—Dave Reifschneider will tell me if I'm wrong—I think, basically, that other long-term rates, corporate rates or whatever, would go down by more if you bought Treasuries than if you bought MBS.

MR. PLOSSER. So the MBS would provide less pass-through, in some sense, to corporates and other things. Is that the idea?

MR. ENGLISH. Yes.

VICE CHAIRMAN DUDLEY. Depends on what you think the degree of substitutability is between them.

MR. ENGLISH. Yes. And this really is pushing pretty hard on our ability to model this stuff, but that's what our modeling says.

MR. LACKER. So that takes away some stimulus, right?

MR. ENGLISH. Yes, that's right.

MR. LACKER. And the MBS, on net—

MR. POTTER. Well, not overall, necessarily.

MR. REIFSCHNEIDER. Well, it doesn't take away stimulus relative to doing nothing. It takes away stimulus relative to—

MR. ENGLISH. Buying an equivalent amount of Treasuries.

MR. LACKER. Right.

MR. POTTER. On those—

MR. LACKER. In that sector.

MR. POTTER. Not necessarily for the economy as a whole.

MR. LACKER. Right. So the rationale for MBS—is it that, on net, real outcomes are better? Or is it more of a sectoral argument?

MR. ENGLISH. The argument we gave in the memo was that you want to have a balance across the two so that you can ramp up or ramp down. We know from the capacity memo that we sent the Committee before the last meeting that there's a maximum amount, roughly, that we were comfortable saying we could buy over the next couple of years. That maximum amount has a ratio of Treasuries to MBS, and we've roughly maintained that ratio in these purchase programs.

MR. LACKER. I understand. Thank you.

MR. REIFSCHNEIDER. That's the main argument. There's a second argument, which is not in the model sims we've run, but a lot of people believe that MBS could have effects that the model isn't picking up—say, larger effects on house prices, bigger effects on mortgage refinancing, or something like that.

CHAIRMAN BERNANKE. President Lockhart has a two-hander.

MR. LOCKHART. Is there a connection or correlation between lowering mortgage-backed rates and other securitization vehicles such as auto, student loan, credit card?

MR. ENGLISH. There might be in practice, but we're not picking that up in the modeling that we're doing.

CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN DUDLEY. Just one observation. Presumably, the reason why you also might want to split it is a market functioning issue. You can go bigger if you split it between two markets than if you concentrate all on one market.

MR. POTTER. We are still buying in the Treasury market.

VICE CHAIRMAN DUDLEY. That was just a comment, but I have a question. It seems to me as though the key money line in B is, "If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of agency mortgage-backed securities and undertake additional asset purchases." That's the key money line. Now, I'd like to get staff members' views of what they think people are going to interpret that line to mean in light of, say, the SEPs that are going to be put out and the Chairman's press conference statement. How do we think people are going to interpret that line? That's critical—you have to have a view on that to know what you're really voting for, in some fundamental sense. I know it's judgment, but I'd love to hear your view.

MR. ENGLISH. We're not sure. I think we argued in our memos that it might be something like a ½ percentage point decline in the unemployment rate that's sustained.

VICE CHAIRMAN DUDLEY. No, I don't mean the effects on the macroeconomy. I mean, when people write the articles at the end of the day, what are they going to think about how big this is likely to be?

MR. POTTER. I don't think it will show—

VICE CHAIRMAN DUDLEY. They're going to have our SEPs, and they're going to have this information that shows that this unemployment rate trajectory—

MR. KOCHERLAKOTA. You mean the purchase program itself?

MR. POTTER. The total amount for—they're going to try to work out an expected date.

VICE CHAIRMAN DUDLEY. Yes. And so I guess I'm asking, what kind of expected date do we think they can work out?

MR. POTTER. The SEP will give them some information. I don't believe that shows a substantial improvement in the labor market for quite some time. So that means that they'll probably be looking for sometime in 2013. That's the way we've been modeling this, I think. And the assumption you had, Bill, was something like $600 billion of total purchases—is that right?

MR. ENGLISH. Including purchases under the MEP, it was $750 billion. But, as I said in my remarks, it could easily be more. People might see that the economy is expected to be weak for quite a while; they might carry it out further into 2013 and get a bigger amount.

VICE CHAIRMAN DUDLEY. For me, the obvious question to you, Mr. Chairman, at the press conference might be, given the SEP and your views, what does the SEP forecast imply in terms of "improve substantially"?

CHAIRMAN BERNANKE. My answer will be that we want to see—not what we saw last Friday. We want to see increases in payrolls. We want to see some progress—not sharp progress, but some progress—in the unemployment rate. And we want to have a sense that the economy is moving in a direction that will help labor markets get better. We used the word "outlook." So a pickup in GDP growth would certainly be a factor in the outlook for labor markets, for example. I think we have a fail-safe here, which is that if it doesn't have any effect, then we have the efficacy clause here as well. But the idea would be that we want to see something different from the current waiting-in-place kind of situation where there's no progress, the unemployment rate stays about the same, and monthly payrolls are 100,000 and less. And I will emphasize that it's not a single indicator or a single trigger number; we're looking holistically at the labor market indicators and, in fact, more broadly because it's the outlook for the labor market that matters, not just the current number.

VICE CHAIRMAN DUDLEY. So you'd have to see improvement in the labor market that you thought would be sustained in the future.

CHAIRMAN BERNANKE. Right.

MR. REIFSCHNEIDER. For what it's worth, the Blue Chip forecasts for the unemployment rate going into the middle of 2013 are very flat. Then, in the second half of 2013, they're expecting to see a more noticeable downtilt in the unemployment rate. So that's another way of looking at it.

VICE CHAIRMAN DUDLEY. So the market would presumably put in nine months or more—that would be a reasonable guesstimate, I guess.

CHAIRMAN BERNANKE. Again, it's the outlook and not the actual.

VICE CHAIRMAN DUDLEY. Yes.

MR. PLOSSER. I just want some interpretation of the word "substantially" here because the market is going to ask you that as well. What constitutes substantial progress?

CHAIRMAN BERNANKE. Substantial progress means that we are seeing ongoing progress in the direction of improved labor market conditions.

MR. PLOSSER. So it's not something about the magnitude of the rate of change.

CHAIRMAN BERNANKE. It's not the magnitude, but really a movement in that direction that is, I might say, persuasive or indicative that there is now progress in the right direction, as opposed to simply remaining static or getting worse. President Lacker.

MR. LACKER. This is on the same point.

CHAIRMAN BERNANKE. Yes.

MR. LACKER. David Wilcox showed us employment in his forecast summary, and when they do all of the seasonal adjustment right, it looks as though half of the improvement we got in the labor markets this past winter or the winter before, was spurious, seasonal stuff. Would what we saw last winter suffice? Would we stop after that?

CHAIRMAN BERNANKE. I would think so. It dropped 1 percentage point between August and April.

MR. LACKER. I'd be on board with that. But his analysis suggests that that would be like another seasonal head fake.

CHAIRMAN BERNANKE. Well, we'd look at a range of variables. Of course, there's nothing that says if you stop, you can't start again.

VICE CHAIRMAN DUDLEY. No, but last winter, though, it wasn't really that convincing because, remember, payrolls were strong but GDP was weak, and we had this riddle.

CHAIRMAN BERNANKE. We had this riddle. Yes, that's right.

VICE CHAIRMAN DUDLEY. And so you could argue that you wouldn't necessarily stop last winter, because you didn't have the GDP growth to support the labor market.

MR. POTTER. I don't think our outlook changed that much.

CHAIRMAN BERNANKE. We basically want to see progress in terms of the key macro labor market variables.

MR. LACKER. All right. Well, let me ask Bill Dudley's question again. What do you want the *USA Today* headline to be?

CHAIRMAN BERNANKE. "Bernanke, the Hero"? [Laughter] "Federal Reserve Says It Will Support Economy."

MR. FISHER. That's the sports section, Mr. Chairman.

MR. PLOSSER. "Federal Reserve All In."

CHAIRMAN BERNANKE. "Federal Reserve Will Provide Support to Labor Market."

MR. LACKER. By buying MBS?

MS. DUKE. And housing.

CHAIRMAN BERNANKE. Housing. People understand that.

MR. LACKER. Okay.

CHAIRMAN BERNANKE. Any other questions? Did you have a question, President Pianalto?

MS. PIANALTO. Yes, Mr. Chairman. Bill, you made some comments about the 6½ percent unemployment trigger in alternative B, paragraph 5′. You said that some forecasters have slower progress on the unemployment rate, so they may view what is in alternative B as more accommodation than markets expect. If you look at your page 1, "Alternative Monetary Policy Scenarios," that 6½ percent rate, as you mentioned, is about mid-2015. I know we're trying to get away from the date, but you made those points. You didn't say very much about the inflation rate, because here it says "no more than a half percentage point above the Committee's 2 percent objective." When you look at those scenarios, with alternative B, we don't get anywhere close to 2½. We're just slightly above the 2. At one point, we looked at some language that said "close to the Committee's 2 percent objective." And I see that alternative B, and even alternative A, is close to our objective. What are some of your thoughts? Just as you had some thoughts about the 6½ percent being interpreted by some as being more aggressive, would that 2½ percent objective be viewed as, again, more aggressive, and is it necessary given the scenarios that you've laid out here?

VICE CHAIRMAN DUDLEY. It's not an objective, though, right?

GOVERNOR YELLEN. It's not an objective.

VICE CHAIRMAN DUDLEY. It's not an objective. It's just a tolerance level. That's quite different.

MS. PIANALTO. But it's a matter of perceptions also. We're talking about communications. And we've made a lot of progress and laid out a 2 percent objective. What are the advantages? Using "close to 2 percent" would still give us the flexibility that's laid out in these scenarios, but we're not communicating to the public that we're throwing out ½ percentage point. It seems as though we're throwing out a number, whereas, "close to" gives us some of that flexibility.

MR. ENGLISH. I think the ½ percentage point buffer was intended just for clarity. If you said "close to," everybody would ask the Chairman at his press conference, "What do you mean by 'close to'?" and try to extract that information. People will be looking at the SEP, and the SEP shows inflation below 2 or at 2, roughly, but not going above. So I don't think they'd misread the ½ percentage point buffer as suggesting an intention to set out to push inflation above 2. It would simply be seen as a buffer. There could be transitory shocks that would change the inflation outlook for a time, and the Committee could look through those and say, "Okay. We're going to go up as high as maybe 2½ for a little while, but after that, we think inflation is going to come back. In the end, we're getting to our objective, and that's okay." But whether you want to say explicitly "½ percentage point" or "close to" is a question of communications. It's a little clearer to say the number and not use "close to." But this is a communications issue for the Committee.

CHAIRMAN BERNANKE. Governor Stein.

MR. STEIN. Yes. Thank you, Mr. Chairman. Can I ask one more press conference question? Suppose somebody says, "We get to the end of 2013, it's December 2013, and we're exactly where we are today. So the unemployment rate, job growth—everything is pretty much exactly where we are today. Do you envision that we'll still be continuing asset purchases at that point?"

CHAIRMAN BERNANKE. As we go through time, as the balance sheet grows, as we observe the effects on the economy, we'll be continually reevaluating the efficacy of the program and the costs that it is imposing. And if we feel that we've reached that point and the program is not being effective, then we will have to stop. President Kocherlakota.

MR. KOCHERLAKOTA. Yes. I'll just add on to what you said, Mr. Chairman. This question is an important one, but I think there are just two ways you could end up being in the same place. It could be that there were a lot of bad shocks and the asset purchases helped you stop that, or maybe not. We'll have to make that call at that time.

CHAIRMAN BERNANKE. We have overnight. If any genius around the table would like to come up with better language, I would be more than happy.

MR. KOCHERLAKOTA. Mr. Chairman, I counsel you against offering that. [Laughter]

CHAIRMAN BERNANKE. Any other questions? Are we all set? [No response] Bill, what do you want us to do with these handouts? Do you want us to take them home and bring them back?

MR. ENGLISH. You have lots of Class I information in your Tealbook, so you can keep them.

CHAIRMAN BERNANKE. All right.

MR. ENGLISH. But please don't leave them on the subway. [Laughter].

CHAIRMAN BERNANKE. Don't leave them on the subway. So 8:30 tomorrow morning. The reception is available at 5:00 p.m.

[Meeting recessed]

September 13 Session

CHAIRMAN BERNANKE. Good morning, everybody. We should have a reasonable amount of time. We need to get the statement in by 11:30 and close the meeting by noon. But first, to get started, why don't we begin our policy go-round? I have President Williams first on the list.

MR. WILLIAMS. Thank you, Mr. Chairman. I support alternative B with the forward guidance on the funds rate in paragraph 5′. The case for further action is clear. In the absence of significant additional monetary stimulus, progress toward our policy goals would remain stalled. Such an outcome is simply inconsistent with the notion of appropriate monetary policy and, in my view, is unacceptable. We must aim for a path that brings us measurably closer to our goals over the forecast horizon, and we must take concrete actions that get us on that path. Open-ended purchases of MBS represent a substantial step in that direction. With this action, unemployment will fall more quickly and inflation will return toward 2 percent faster than under the status quo.

The flow-oriented asset purchases in alternative B also provide flexibility that's particularly valuable, given all the uncertainties of the economy, the fiscal cliff, and Europe. They serve as a useful automatic stabilizer as market expectations about the ultimate size of the program adjust in response to changes in economic conditions and the outlook. If the labor market shows signs of substantial improvement sooner than expected, the program can be curtailed. In contrast, if the recovery falters, the program can provide additional needed support.

There would be similar benefits from incorporating such an automatic stabilizer into our forward guidance of the future path of the funds rate. The language in paragraph 5′ does just that. Incorporating this language into our statement would allow us to finally get the calendar-date monkey off our back and provide better guidance on our policy reaction function—importantly, at least, on economic conditions—for funds rate liftoff that is both clear and consistent with our dual-mandate objectives. It's also flexible enough to handle a variety of future paths for the economy and inflation. Indeed, the beauty of this approach is it provides guidance for contingencies where our forecasts go wrong, which they inevitably do.

Finally, I continue to favor lowering the interest on excess reserves rate, the IOER rate, to 15 basis points. We should be using all of our tools in the same direction. Thank you.

CHAIRMAN BERNANKE. Thank you very much. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. I support alternative B with the $40 billion per month mortgage purchase program and prefer option 5′, which moves us away from dates and focuses on the economic outcomes we seek to achieve. Inflation is quite low, and unemployment is quite high, and most of our forecasts for the past nine months have overestimated how quickly we would see improvements in either element of our mandate.

Alternative B embraces the sense of doing what it takes to move the economy at an acceptable pace toward full employment with stable prices. Alternative B continues to take out duration, provides some direct support to housing, which is just beginning to recover, and extends guidance on the funds rate liftoff, which, given our lack of progress toward our mandate, seems appropriate. I strongly support the $40 billion rather than the $30 billion monthly mortgage purchase program.

I would also prefer to include economic targets rather than date targets in our guidance. Thus, I would prefer the conditionality language in 5′. The language has two advantages. First, the conditions for changing our policy stance are clear and observable to the general public. Second, date-conditional language can be subsequently undercut by Committee members' comments that suggest a different date may be appropriate, thus altering the effect of policy relative to the intent of the consensus reached by the Committee. Because 5′ conditions the policy on observable outcomes, the public can adjust its expectations automatically to changing economic circumstances, and there is less likelihood of perhaps inadvertently diminishing our policies' effectiveness due to Committee disagreement.

There seem to be two arguments against taking action at least as strong as B at this meeting. First, that it would be ineffective. Estimates in Boston are that following option A would reduce unemployment by approximately 0.8 percent by the end of 2015. This is roughly in line with the Board staff memos and the consensus policy submissions from three other banks that reported a preferred policy that was close to A. If accurate, this implies creating more than 1 million jobs relative to doing nothing at this meeting. I do not view that as de minimis.

The second argument against more aggressive action is that it will cause inflation. Again, the consensus forecast exercise is instructive. Among banks that provided numeric submissions, those that assumed further easing assume underlying inflation will remain well anchored. This assumption is consistent with the Boston forecasting model. Two of the Banks that provided numbers and assumed earlier tightening than we do have virtually identical unemployment rates with and without tightening, but a dramatically higher inflation rate under the baseline policy. This is markedly different than the staff forecast, the DSGE models that we have seen, and the models used by Banks assuming the need for easing. It would be interesting to discuss the theoretical basis and empirical evidence for such an inflationary process, which I presume is tied to dislodging of inflation expectations. However, absent a strong empirical basis for such an inflation process and with inflation tracking below our target and roughly consistent with the staff forecast in models that assume expectations remain well anchored, I view the risks of inflation as being well contained through 2015, even with a more aggressive policy than in alternative B. Thus, I support B but would strongly prefer the forward guidance in the language of 5′ and the larger mortgage purchase amount. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Kocherlakota.

MR. KOCHERLAKOTA. Thank you, Mr. Chairman. Given the Committee's outlook and overall assessment of the economy, I would say that additional accommodation is appropriate. I think the question then becomes what form that accommodation should take.

Alternative A and alternative B offer the Committee the opportunity to do large-scale asset purchases. As you said in your Jackson Hole speech, Mr. Chairman, and as the staff analysis indicates, the benefits of large-scale asset purchases are still under study and still uncertain. And the question is, how do we deal with that? How do we deal with the issue that we don't know exactly how much the benefits are, even though we might feel confident about the sign? Governor Yellen and the Vice Chairman said the right things yesterday about this, which is to act forcefully and to enhance the benefits of our large-scale asset purchases as much as possible.

How do we enhance our purchases as much as possible? Well, the stimulus from our purchases hinges critically on the forward guidance. They work together. If you buy assets and hold them for one day and then sell them the next day, they are providing no stimulus. If you buy assets and hold them for 10 years, they're providing a lot of stimulus. The stimulus that the asset purchases are providing the economy depends on the timing of exit. To enhance the benefit of our large-scale asset purchases as much as possible, we need the best possible forward guidance, and I would say that B(5′) as opposed to B(5) provides that forward guidance.

I talked yesterday about the ambiguities that come by trying to communicate our reaction function with a date. Today I'll focus only on the economic aspects of B(5′). One, it provides an automatic stabilizer against macro shocks. Two, it offers protection against inflation. And, three, I want to talk about the mechanism through which it's offering stimulus.

The automatic stabilizer feature of B(5′) is relatively clear. We talk a lot about downside risks in this room. We have a bad shock—and there are many possibilities out there, I won't go through them all. If unemployment goes up and we have B(5) in place, which is date guidance, people will wonder: What is the Fed going to do? How are they going to respond to that shock? With B(5′) in place, if unemployment goes up, it means automatically it's going to take us longer to get back to the 6½ percent. That means that people know that interest rates are going to be low for longer, and—this is important because the extra accommodation that's going to be provided at this meeting is likely to take the form of asset purchases—the assets that are being bought are being held for longer. So a bad shock automatically translates into more stimulus because of the explicit numerical markers being provided in the guidance.

I've painted this as an ex post story of why B(5′) is preferred, but it actually has an ex ante component to it. Essentially we're offering insurance to the economy against bad shocks, and that means that people have less need for saving to deal with those bad shocks, and that stimulates spending. We've talked a lot about uncertainty. Having the Fed have a reaction function in place that it has communicated clearly helps reduce uncertainty because people know how the Fed is going to react to those disturbances. That's the kind of stabilizer property that's in B(5′).

Let me talk a little bit about inflation protection. It's a part that matters a great deal to me. I've been and remain concerned about the possibility that the long-run natural rate of unemployment may well exceed our current estimates. Here's how I've been thinking about this issue. Suppose we only had one mandate—price stability. How would we go about operationalizing that goal? Well, presumably we would choose monetary policy so as to keep the medium-term outlook for inflation close to 2 percent. Now, we have to struggle a little about what "close to" means, and I'll talk a little bit more about this later, but for me I'm willing to say that 50 basis points is close enough. I would say that if you had a price-stability mandate, then promoting price stability means keeping the medium-term outlook for inflation within 50 basis points of target, 50 basis points below or 50 basis points above. This is only the price-stability mandate, and this is exactly the language about inflation in B. In other words, the way I read alternative B(5′) is it's saying that the Committee has the option of raising the fed funds rate if it ever perceives that it is not satisfying its price-stability mandate because inflation exceeds 2½ percent.

Now, this is not a trigger, to be clear. And we should be clear when we talk about this that it is not a trigger. It's a threshold, and it's a threshold for conversation. At that point, the forward-guidance commitment is no longer operational. In some sense, we'd be back to business as usual in this Committee. The Committee would have to weigh the cost of violating its price-stability mandate against whatever performance it's achieving on the employment mandate and decide what to do. And those conversations would inevitably be interesting ones. I actually think that B slices through what might appear to be a very challenging problem. It provides valuable accommodation while allowing the Committee to be able to protect its price-stability mandate.

Let me turn now to how it does that. What's the magic behind B(5′) that allows it to give us this protection against inflation as well as providing the accommodation? It comes from the fact that a lot of our estimated rules of past behavior, like a Taylor rule, have us raising interest rates just because unemployment is too low. The mechanism behind B(5′) is to say we don't want to raise interest rates just because unemployment is too low, we want to raise interest rates because we're worried about inflation. If it turns out that unemployment is low but inflation is under control in the sense that our medium-term outlook is within 50 basis points of 2 percent, there's no reason to raise interest rates just because unemployment is too low. The way B(5′) is providing stimulus is by saying the FOMC will tolerate low unemployment.

There's a lot of talk about how we should stimulate the economy by having high inflation. That is not what's going on in B(5′). What's going on instead is that the FOMC is going to hold off on raising rates until unemployment is lower, and that provides stimulus because people know that we won't be choking off the party, as it were, before it's really under way. This willingness to tolerate low unemployment is exactly how the optimal control exercise works in FRB/US. If you look at the optimal control exercise in FRB/US, in the fourth quarter of 2015, unemployment is 5¼ percent, the outlook for inflation is 2.3 percent—that's not what's providing the stimulus—and you get liftoff at that time. The Committee in that FRB/US simulation is holding off on raising rates, and that stimulates a faster return to low unemployment, to the natural rate. For those of you who are suspicious about FRB/US, it's obviously just one of many models, but you get exactly the same mechanism in a New Keynesian model. Iván Werning has a great paper along these lines. High future output after you leave the zero lower bound stimulates high output at the zero lower bound. There's no extra inflation at all in Werning's paper because actually prices are fixed. It's all about the commitment to deliver on lower unemployment and higher output than you would otherwise think.

If you're listening to me about the mechanism, you should be thinking: If you've got such great inflation protection and low unemployment provides good stimulus, why not have a lower unemployment threshold than 6½? I would agree with that. I think we should be willing to consider that. President Pianalto raised a concern that maybe 50 basis points was too large a spread. As I said, I'm willing to go that far out, 50 basis points, but maybe one way of shaping a compromise along those lines is to have a lower unemployment threshold. That's a good thing; it provides stimulus. And then have a tighter inflation—not even tighter, just say "close to" 2 percent, which actually is vague enough that it could allow for 50 basis points. But I put that on the table as possibly one way to shape a compromise. I think B(5′) is very valuable in this context. Alternative B(5′) provides an economic stabilizer, it provides inflation protection, and it's a credible mechanism. It's a way to provide a credible mechanism to say we're going to be willing to tolerate low unemployment.

Yesterday Governors Raskin and Stein talked about low expectations in the economy, that really what we have to be thinking about is ways to bolster expectations. Communication along the lines of B(5′) is going to be very helpful in that regard. We often pay a lot of attention to the words in this room, and the words are important in what we say, but in something like B(5′) the numbers appropriately are going to be the main focus. How do we explain these numbers to the public? I certainly have thought about this. It's very easy to communicate the idea that we have a target, 2 percent, but we need a tolerance around that target. I think every businessperson, at least, will understand you have targets for performance, but there's some tolerance that you have around that as well. Some people are going to say 50 basis points is too large, but we should be able to make a case about why we feel 50 basis points is appropriate, given the kinds of shocks that could hit the economy on an ongoing basis, but the idea of having a tolerance is a very reasonable one.

Why 6½ percent? As I've suggested, we could go lower, but I think 6½ percent says we're trying to minimize the possibility of being in breach of our tolerance range. We have a tolerance range—it doesn't mean we want to exceed it. We're very prudent about minimizing the possibility of any breach of that.

I will wrap up at this point. We'll hear, I'm sure, from others that the LSAPs have costs, and I share some of those concerns about those costs. I think the response to that is to try to make the benefits as big as possible, and the language of B(5′) is the way to go along those lines. I offered a suggestion for changing B(5′) yesterday. I'll offer that up for the Committee's consideration. I do worry, as written in the draft statement that the staff circulated yesterday, that the last sentence is a little confusing. At least I found it so, but if we feel we could go out and explain it to people, I'm happy to live with that; however, I hope people are willing to consider my suggested alterations. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. We're going through at a rapid pace. We're going to be done within the hour here, I think.

MR. TARULLO. Don't bet on it. [Laughter]

MR. BULLARD. I have just a few comments here on policy, so I just wanted to follow up on my comments from yesterday a little bit. I do not think that this is the right juncture to unveil a large and aggressive easing program. I think the road ahead this fall and winter could be rocky. We would be better served to take a more opportune time to take such an action. We are looking at economic data that are middling. We've got financial stress, which is relatively low, at least for now. Our counterparts in Europe, not us, are the ones in recession, and, in my view, should be the ones that are easing aggressively. U.S. equity markets suggest continuing faith in U.S. expansion. Long-term rates are exceptionally low.

We may also be playing down the costs around the table here of walking farther into the woods than we already have on balance sheet policy. President Plosser has emphasized those costs, and I think rightly so, and he has done a good service to the Committee in emphasizing those costs. One thing that hasn't been mentioned very much is that there is a distinct possibility that we would be feeding into commodity price increases, which is part of what happened during the QE2 episode and was a bit counterproductive. We could argue about that. We haven't talked about it a lot, but I am a little bit concerned about that based on the action that we are likely to take today.

I am not one that buys into the critique that monetary policy has been a long ways off target in the past five years. It is true that the economy is not performing as well as we would like. There is a clear hypothesis for that based on the fact that we are dealing with a collapsed housing bubble and the aftermath of a financial crisis. But the Committee, by all accounts, has done a lot. Much of it has been quite innovative, and the call of the Committee and of the Chairman has been essentially correct during the past several years. So I am not one that thinks that we are 90 degrees off from where we should be or could be at this juncture.

For our action today, as encapsulated in option B, we can cite two things that do make some sense and that I am sympathetic with as a rationale. One is that we do have a global slowdown. I am concerned about it. I think it is very legitimate to worry that that slowdown is going to affect the United State more than it has so far, and that that is a compelling argument for getting ahead of that and taking aggressive action here. That is one reasonable rationale. And I also think we have some room to maneuver on the inflation front, but only some. I think it is nothing like 2010 when all measures of expected inflation were down a lot and trending down further. We can cite these factors. I don’t think we have as good a rationale as I would like to see for a move of this magnitude.

Within alternative B, I do think it is a good moment to adopt a meeting-by-meeting approach to balance sheet policy that I have been advocating for a long time. I hope that this will put us more into a mode that is similar to the one we are in under normal interest rate policy where we can sensibly adjust the policy at each meeting, given the change in the outlook and the change in the economic situation. This will likely serve the Committee pretty well going forward, and I appreciate that alternative B has that feature. I am satisfied with the formulation in B with respect to that dimension.

On paragraph 5, I definitely support 5 and not 5′. As many of you know, I have argued that explicit mention of an unemployment number is a tactical mistake that may not serve the Committee very well. As Governor Yellen remarked yesterday, hysteresis in unemployment cannot be ruled out in the U.S. And I might remind the Committee again that Europe has not seen 6½ percent unemployment for a couple of decades. Today it is over 11 percent in Europe, despite some major countries undergoing structural labor market reforms. I am concerned that we are telling the public that we can do more about unemployment than we really can. It is more labor market policy than it is monetary policy, and it could possibly throw monetary policy off for a generation to tie explicitly to unemployment and to promise that monetary policy can do a lot about unemployment. The story in Europe is exactly that there are structural problems that developed over time. Unemployment has remained very high for a very long time, and the structural reforms have not been undertaken by the various governments across Europe. It is one thing to have bad labor market policy. It is another thing to have bad monetary policy because you have bad labor market policy. I am concerned about this, and I'd advise against going in that direction.

In addition, I think there are hazards of tying to any particular measure of economic performance because all of our metrics have clear deficiencies, and many of them are mentioned around the table here. One of the deficiencies for unemployment is that unemployment can fall for the wrong reasons. We were just citing yesterday that the unemployment rate did fall, but it didn't fall in a way that we thought was indicative of better labor market performance. So you could have a situation where you feel like unemployment has gone down to a relatively low level, but you are not very satisfied with labor market outcomes, and you still feel like the Committee should be aggressive in that circumstance. This is a problem that we have with all of the economic data that we look at—that each piece of data only tells a part of the story about the overall economic performance. We would be better off to preserve the Committee's judgment on economic performance.

Outside of the statement it's fine for various members to say, "I'd really like to see unemployment come to here," or "I'd like to see labor force participation come to here," or whatever other metrics that you'd like to see certain types of labor market measures hit certain thresholds. But I'm not sure that you want to tie the Committee's hands in making a judgment about overall economic performance. So I'd have no problem beefing up the language on labor markets, if people feel like we maybe have been insufficiently attentive to this and saying that we are going to pay more attention. That's fine with me. But I'm counseling against putting an explicit number on this or really any other data, to the extent we can avoid it, in the statement.

And, finally, on this paragraph 5′—and then I have a few more comments—I think thresholds or triggers like this draw lines in the sand that we may not want to be drawing. We are all in agreement that if we are inside the bounds—say, 2½ percent and 6½ percent—that we are not going to raise rates. But if you cross the bound, you are implicitly sending a signal that you are going to do something. I'm not sure the Committee has really decided that we would actually do something in that circumstance. Putting on my dovish hat for a minute, you are creating this thing where you are saying you will act if the triggers are violated. I don't think we have really discussed that or really think that that's what we would do. If inflation is at target, and unemployment comes down—and President Kocherlakota was at least in part touching on this—the Committee may not want to tighten at that juncture. What if you don't want to tighten at that juncture? Then why are you giving that as the trigger? That part to me has not been formulated in a way that I can get my head around.

Let me comment just for a few minutes on Mike Woodford's Jackson Hole paper, which I do think was a seminal survey of monetary policy at the zero lower bound. If you haven't looked at it—and I know many of you have—the paper is divided into just two parts. There is balance sheet policy, and there is policy to commit to stay at the zero interest rate for longer. If you know Mike, you know that he is very pessimistic about balance sheet policy, being an anti-monetarist kind of guy. He does not think balance sheet policy is very effective, except to the extent that it has a signaling effect and that the Committee is better served by doing something rather than just promising to do something.

I agree with the Chairman's assessment that Professor Woodford is underestimating the effects of balance sheet policy. I do think QE2 did have a significant influence on the United States and especially on expected inflation and actual inflation. The effects to the real economy are harder to trace out, but those are always hard to trace out. So I think today's alternative B action is a sensible way to manage the balance sheet policy going forward and that policy does have some prospect of being effective, so I'm not going to argue against the efficacy of the policy.

Professor Woodford thinks that the only way to provide accommodation, in large part, is to commit to stay at the zero lower bound for longer. I agree also with the Chairman that the length of time that this Committee may be able to commit to stay at zero gets less and less credible as you go farther out in the future. That is something that is not well captured by the model. If you start going out many years, so many things can happen over that period, in reality, that it is not clear that you are communicating anything. But the main message I took from the paper, and an effective message, was this: If you are trying to make this commitment to stay lower for longer, it is a very subtle matter to get it right. And he reviews a lot of central banks and a lot of central bank actions, some of which he characterized as counterproductive in terms of trying to get the right type of commitment from the perspective of the model on staying lower for longer. In fact, what I took away from it was, the main danger is that continuing to commit to later and later liftoff could be sending this pessimistic signal—if we don't do it correctly—that the reason we are staying lower for longer is not that we are trying to make up for the fact that we have been stuck at the zero lower bound, but instead it is that the outlook is deteriorating and is continuing to deteriorate in a very negative way. And I think we have to be careful about that, and that maybe we have sent that signal, unwittingly perhaps, in some of our actions.

I am going to give a suggestion, not a policy suggestion, but a suggestion about the proper way to think about this from Professor Woodford's perspective in my interpretation. The whole point is you are constrained by the zero lower bound for a period of time. Then, after you would otherwise raise interest rates, you stay at the zero lower bound for a time to make up for the fact that you were constrained during the earlier period of time. My example about how we should think about this is as follows. Suppose the Committee was committed to a Taylor rule the way John Taylor likes to use it—his is a much more aggressive and hawkish Taylor rule, which would even call for raising rates today. And suppose everyone agreed on that. This is just hypothetical, obviously. And that rule would call for us to raise rates today, but we would say, "We are not raising rates today. We are staying at zero today." The reason we are staying at zero today is exactly the Woodford reason, which is that we were constrained by the zero bound for a couple of years. Therefore, we have to stay at zero for a while. And it is exactly at that point that you gain credibility for the policy. You are trying to make up for the zero bound constraint by staying at zero even though the data are telling you, according to the standard Taylor rule or other Taylor-type rules, to be more aggressive at this juncture. You are staying at zero because you need to make up for the fact that you were at the zero lower bound for some time.

I do not agree with Professor Woodford that the nominal GDP targeting approach would do this. My main complaint about nominal GDP targeting is that it ignores the possibility of what is likely an altered real GDP growth path. And certainly, if you look at the data, as the Chairman was saying yesterday, on levels of real GDP or consumption, it looks like we are on a different path than we were. So to commit us to get back to the previous real GDP trend, which is partly driven by the bubble economy in the mid-2000s, I think would be a mistake.

However, for price-level targeting, I have looked at graphs and tried to get an analysis of where we are with respect to the price level. If you look at the price-level path established during the period from 1995 to 2005, which was a relatively successful monetary policy era for the Committee in terms of hitting our inflation target, we are actually very close to or right on that price-level path. And in that sense, that has been a great success of the Fed during this episode. Unlike the U.S. in the 1930s, when policymakers allowed the price-level path to deviate from the previously established path, or Japan in the 1990s, in which, again, they allowed the price-level path to deviate from the one that had been established, we did not do that. We are right on the 1995 to 2005 price-level path. In that sense, policy has been successful, and we have not committed the mistakes of the past. That is also one reason why I think we have made essentially the right call over the past several years. I am going to stop there. Those are my thoughts on monetary policy. Thank you very much, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. Yes, just a point of clarification. I view the language of 5′ as a threshold, not a trigger. Threshold language would be, "low rates appropriate, at least as long as the unemployment rate exceeds 6½ percent." A trigger would be, "A low rate is appropriate only as long as the unemployment rate exceeds 6½ percent." So I think it is written as a threshold, not a trigger.

MR. BULLARD. Can I respond to that? I agree that that is the language in there, but I think markets will interpret it as a trigger. Or let me say, as a fair way, I think there is a danger that markets will interpret that as a line in the sand or a trigger.

VICE CHAIRMAN DUDLEY. I think it's pretty easy for the Chairman in the press conference—if we were to go this route—to explain what a threshold means. I don't think it is that complicated.

MR BULLARD. If it's not a trigger, why put the number in? Put a lower number in.

VICE CHAIRMAN DUDLEY. That's okay, too.

CHAIRMAN BERNANKE. Yes. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. I am going to support alternative B. Having said that, I have some reservations about going down the path of a new LSAP, particularly the whole-hog approach that's in alternative A. I am reticent on two counts.

First, I remain unconvinced about the likely efficacy of expanding our asset purchases. As I said in the economy round, I think the conditions that made the first two LSAP programs successful—a lack of liquidity in MBS markets in the case of LSAP1 and elevated concerns about outright deflation in the case of LSAP2—are not present in the current environment. This time around, it seems to me that we face a more conventional problem of inadequate demand, and I am not convinced that lowering general market rates will stimulate much credit expansion and spending. Furthermore, it is not clear to me that credit conditions in mortgage markets have eased quite enough to the point that more MBS purchases will have a significant impact.

Second, I have learned to be humble as regards outlook certainty. I have not completely abandoned the hypothesis that the willingness of businesses to hire and businesses and consumers to spend will improve on the other side of the election and fiscal cliff negotiations. As I commented yesterday, I believe there is some upside risk. Though the European situation is not rapidly converging to a truly comprehensive resolution, I see some hope that the process of incremental steps may cumulatively lead to a large leap in overall confidence. I don't have a whole lot of conviction that these optimistic outcomes will be realized, so I accept the case for some policy response to current circumstances in the Committee's outlook. That said, I will support alternative B's modest pace of $30 billion per month. That would be my preference for expansion of our MBS portfolio.

With respect to the choice between paragraph 5 and 5′, I am sympathetic to the idea of replacing calendar dates with economic conditionality. I have said that in earlier meetings. But I am not in favor of the formulation in 5′, at least today. I have views similar to President Bullard's. The unemployment rate is a partial and potentially misleading indicator of labor market performance. The pace of employment growth needed to attain a given unemployment rate can be very sensitive to changes in the participation rate. For example, at current participation rates, it will take just over 200,000 jobs a month to get to a 7 percent unemployment rate by the end of next year. I would consider 200,000 jobs a month over the next 16 months to be consistent with sustained significant improvement in the labor market.

But the Board staff, and many on the Committee, have noted that labor force participation rates appear to be well below the levels that can be explained by demographic trends. My own staff estimates that only 40 percent of the drop in participation rates since the beginning of the recession is due to labor force aging. If the participation rate were to revert to the level it was just last September, job gains of 200,000 per month would, everything else being equal, yield an unemployment rate that would be barely below 8 percent by the end of 2013. And I would not be willing to say that such an outcome would constitute a lack of progress in meeting our employment mandate.

Paragraph 5′, as it is written, contains no reference to broader labor market conditions. I believe there was a reference in an earlier version, but it is has been removed. I think that this is a significant omission, particularly with an unemployment threshold as ambitious as 6½ percent. I'm not comfortable with a number that low, combined with a lack of any reference at all to our broader employment objectives. There are enough facets of the 6½ percent decision to consider that it feels a little rushed to me at this meeting.

As regards paragraph 4, I would include the reference to other policy tools. I think the meaning of this paragraph should be that if conditions don't improve, the Committee will continue the MBS purchase program and may undertake additional asset purchases, employ other policy tools, or both. If I misunderstand the meaning of that paragraph, then I would ask for a little bit more work on this paragraph and further clarification this morning. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. President Lockhart, in 5′, the very last sentence does reference labor market conditions. Did you note that?

MR. LOCKHART. Let me look at that. I stand corrected. Thank you.

CHAIRMAN BERNANKE. Okay. President Evans.

MR. EVANS. Thank you, Mr. Chairman. Resource slack is large, labor market conditions lack momentum toward improvement, and the inflation profile in our projections is slightly below our longer-run objective for the most part. I support strong and meaningful policy actions today to address these deficiencies. I accept that alternative B delivers on these requirements. I think that the $40 billion of MBS and 5′ are very helpful in delivering that. I will simply note that the formulation of forward guidance in 5′ is not quite as strong as I have preferred in the past, but I do think that it is a good, careful approach that will in fact boost monetary policy accommodation, and I can certainly support that, if it is adopted.

I think that the wording paragraph 2 is extremely important. It states the monetary policy concern as follows: "The Committee is concerned that, without further policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions." That is very important. It follows through on the minutes from our July meeting, as well as your grave concerns and remarks expressed at Jackson Hole, so I favor that.

I favor this combination of essentially open-ended asset purchases, which are flexible when you put paragraphs 3 and 4 together, plus the enhanced state-contingent forward guidance in paragraph 4. President Bullard went through this rationale a little bit. Let me just summarize and say I put a lot of weight on the research literature that Mike Woodford described. I thought he did a terrific job. In Woodford's formulation, clear expectations of forward guidance are important and effective for delivering policy accommodation. In fact, I held my breath when I read the page where he described when I had talked about the 7/3 thresholds, and I thought that Mike was kind and gentle in criticizing but saying that that type of forward guidance did deliver more accommodation than what his best choice was. In that sense, the language in 5′ would indeed be helpful. The evidence for LSAPs that you mentioned yesterday, Mr. Chairman, was very important. The two reinforce each other very well.

In paragraph 3, as I mentioned, I favor the stronger pace of MBS at $40 billion. I think that paragraph 4 makes this essentially open-ended by conditioning further LSAPs on substantial improvement in labor conditions, joint with price stability, and with policy effectiveness, as you mentioned yesterday. So there are important safeguards there. It can be flexible and can turn around if in fact it is not working as best we would hope.

In terms of labor market improvement, it would be unambiguously an improvement if we got something on the order of payroll employment increasing 200,000 per month for several months. If the unemployment rate declined either with momentum or continuous improvement, and, indeed, we got GDP growth above trend, those would be all of the markers that we would expect for a strong recovery that would be associated with an improving labor market. We may well not be lucky enough to see all three of those at the same time, so we will have to pay attention to that.

As you mentioned, the last sentence in paragraph 5′ gets at this larger characterization of labor market improvement beyond just the unemployment rate, but the unemployment rate is a very important marker. I think that the paragraph 5′ forward guidance is explicitly state contingent, and it allows us to remove the calendar date. It is very easy for us to be against calendar dates. I think that most of us are uncomfortable with this formulation, that policy can remain low until late 2014 or beyond. But we are uncomfortable because of the ambiguous nature. Is it a forecast? Is it commitment? It is easy to be against that, but you have to be in favor of something in order to actually take it out. The state contingency in 5′ is very useful. So the 6½ unemployment rate marker, with the 2 plus ½ percentage point on inflation, is a useful safeguard. Presidents Williams, Rosengren, and Kocherlakota spoke well about how this works, and that it is critical to describe our attitudes about inflation above our goal of 2. Thank you.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Let me start by saying something positive about alternative B. [Laughter] I very much like the idea in paragraph 5′ of replacing our problematic calendar-based guidance with language that is conditional on future economic conditions. I think this is much needed change. It focuses our communication, our forward guidance, on a reaction function, and reduces the danger that Michael Woodford very eloquently laid out that our forward guidance is actually just making people gloomier about the economic fundamentals. It's a very real danger, and I think there is a very real possibility that that is the effect our forward guidance has been having over the course of the last year.

Okay. That was my positive remark. I would like to move on now to some improvement opportunities I see. [Laughter] I think in 5′ that it would be better if we avoided using a specific numerical value for the unemployment rate as a threshold or trigger, whatever we are going to do. I took a step back. This is a large change in our statement. This is a fairly dramatic change in the set of language we use to characterize our forward guidance. It's an ambitious statement.

In view of our experience with the forward guidance earlier this year, where we got boxed in for something that in hindsight we could have anticipated, I tried to think of ways in which this language could unexpectedly box us in or tie our hands in ways that we don't anticipate now. I think this numerical unemployment rate is one of them. President Lockhart was very eloquent about this. This makes us hostage to labor force participation rates. We would be vulnerable to a scenario—he sketched it out—in which employment picks up, and that starts drawing people into the labor force. This is not an unfamiliar phenomenon historically, in which labor force growth that tails off and turns negative when the unemployment rate goes up, then picks up when employment growth starts rising. Given the behavior of the labor force over the past several years, I don't think we should have a lot of confidence in our ability to project how the unemployment rate would behave in a scenario in which employment growth picked up a lot. I think this is a really serious risk. It would be better to write the statement in terms of the qualitative language used earlier that President Lockhart was referring to. For example, we could say, "This exceptionally low range for the federal funds rate will be appropriate at least until the Committee has seen substantial ongoing improvement in labor market conditions." I think that formulation would be preferable to the language that uses a specific numerical target.

The second opportunity I see has to do with the inflation language in the same statement. We used the phrase that "this exceptionally low range for the federal funds rate will be appropriate at least as long as" blah, blah, blah, "provided that inflation at a one- to two-year horizon is projected to be no more than a half percentage point above the Committee's 2 percent objective and longer-term inflation expectations continue to be well anchored." So the logic is clear, to give ourselves an out if the inflation picture deteriorates substantially. Personally, I think the "close to 2 percent" language would be better. That's more consistent with the kind of standard we described in our consensus statement. Proliferating conditionality language can be confusing. But there is a deeper problem with this language. My sense is that it has been true for the past 20 years in which we have achieved price stability—I believe it has been true—that inflation over the medium term, the next couple of years, was projected to be close to 2 percent or below that. I haven't gone and checked, but I am virtually sure that's true. This was a period during which we achieved and maintained price stability. It is essential to maintain that credibility because it can be costly to regain, but we started this period by moving preemptively, before the forecast of inflation moved away from that low rate. And in the future, it is going to be important for us to be able to move preemptively. If this condition is violated, it is in some sense too late. It's not like we are going to go back to the 1970s right away if this condition is violated, but I think this sets too low a bar. There is a way to word this that tightens this. We can say, instead of "provided that inflation at a one- to two-year horizon," we could say, "unless inflation, at a one- to two-year horizon, would be projected to be more than ½ percentage point above the Committee's 2 percent objective." Something like that makes clear that we would move to keep this condition true, that we are not going to wait until this condition is violated in order to move.

The third suggestion I have for improvement in B(5) concerns the last sentence. I suggest we delete it. I think it is quite confusing. This represents the fifth different statement of conditionality on the second page, in two paragraphs.

VICE CHAIRMAN DUDLEY. Are you saying the last sentence in 5′?

MR. LACKER. Yes, 5′, the last sentence. It is not clear if it only applies after we get to 6½. Does it apply before or after that? It is tempting to think, well, the second sentence is pretty strong—that must trump it. But it's not obvious. And then, it's expressed in terms of the pace, and the rest of the conditionality is about the level of the unemployment rate. So does this mean that if we get to 6½ percent but unemployment is not continuing to fall rapidly enough, we are going to keep tightening policy? I don't think you mean that. It just seems unnecessary and confusing to me.

The final suggestion I will make is, again, the lack of grammatical accuracy in the way inflation is referred to in 4 is unbecoming to the Committee. We take a lot of care to communicate precisely. In something so critical, it is a little disturbing. It just seems like a limp and tepid sort of boilerplate reference to inflation. "In the context of price stability" has always struck me as a little bit vague. Why not say "unless doing so would compromise price stability"? We are committed to price stability. It's in the mandate. I would prefer to see something stronger like that.

Let me take a step back here. If you look at this language, it's complicated. The conditionality is expressed in four or five different ways in various parts of these two paragraphs. Just in terms of complexity, I think it's going to be hard to boil it down and simplify. "Until labor market conditions get better" is probably going to be the headline, but the nuances are going to be hard to parse out for people just reading it. Your press conference is going to be really critical here.

The broad thrust of the language of this thing is to very significantly intensify our focus on unemployment. We have been moving in that direction for some time, but I view this as implicitly weakening our commitment to price stability. Taking this statement as a whole, that's how I view this. I know the worry about price stability seems like a remote and distant concern right now. I know that it looks like it is under control. It looks like we have things covered, looks like we are far from breaking out, looks like we have gotten away with it the past couple of years. We've seen inflation rise up and not have it trigger any erosion of expectations. But the potential, if we lose it, is for far more costly effects on the economy than the incremental impact of the 1 million jobs that the staff has shown might be associated with today's actions. I think that shift in focus represents a broad overconfidence about our models; a broad overfocus on point forecasts, forecast means, mean forecast paths, and their analytics as well as a lack of humility that would be appropriate here.

As for the deeper issues of the day, I cannot support a new asset purchase program. We are fluctuating around a sluggish growth path, and I don't think we should react to the downside wiggles that are of this magnitude. Further stimulus at this time is unlikely to improve economic growth much without causing an unwanted increase in inflation. I have talked about that before. This will complicate risks, creating greater complications in our exit strategy. The larger we make the balance sheet, the more vulnerable we are to small miscalculations in policy along the exit. It just provides so much scope for expansion in bank lending and deposits that it makes us very vulnerable. And the larger we make it, the more vulnerable we are.

I strongly oppose purchasing more mortgage-backed securities. Central banks should not choose which economic sectors to support. Doing so, if it has any effect at all, restricts credit access in other sectors. And I don't see how we can defend that. Such allocational initiatives go far beyond our mandate. They undermine our claim to deserve independence for the conduct of monetary policy, and threats to our independence have been growing recently. I think these are just going to heighten those threats. Buying MBS is bad policy and bad politics. The only circumstance in which I'd support it is if there weren't enough Treasuries out there to buy.

One final comment. There was some discussion at the last meeting of the slogan "We'll do what it takes." I think we haven't given enough thought to the possibility that what it takes is patience. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. I want to comment on one of your observations, President Lacker, about the last sentence of 5′. I read it slightly differently than you do, and I don't know how other people read it. I read the sentence preceding it as saying that we currently anticipate that these are the right metrics, but then the last sentence says that that current anticipation could be modified by what we see over time. You are basically saying that you are not completely locked into the first thing, regardless of what economic information you see in the future. So I think the sentences actually do work together in a reasonable way.

MR. LACKER. So the policy we're adopting here is that an exceptionally low rate for the funds rate is going to be appropriate as long as the unemployment rate exceeds 6½ percent, inflation is well contained, or we decide that some other indicator of labor market conditions is more appropriate.

VICE CHAIRMAN DUDLEY. We currently anticipate that this is the right range, but our view is going to be modified by future information about a broad range of indicators. That is how I read it. That seems to be more intelligent than saying we are locked into this, regardless of what happens, regardless of what we see, and we are not allowed to learn about anything as the economy evolves. It creates a little nuance, which is reasonable in terms of how one would expect the Committee to operate.

MR. LACKER. Well, then, why not soften the 6½ and use more general labor market conditions.

VICE CHAIRMAN DUDLEY. Because you are trying to give guidance about what the Committee thinks at the time, what we think today that might be modified or might not be modified by future information. But clearly it would be unintelligent not to modify your view if the information strongly contradicted your prior view. That's how I read it.

CHAIRMAN BERNANKE. President George.

MS. GEORGE. Thank you, Mr. Chairman. Despite massive monetary policy accommodation over the past four years, a stronger recovery has not yet materialized, and last week's labor market report was a frustrating reminder of this long slog. Like others, my forecast accounts for any number of risks related to Europe, the U.S. fiscal cliff, and the regulatory environment, and does recognize that policy accommodation may need to remain in place for some time in order to support the recovery. I understand the case for taking action in order to spur the recovery and bring down unemployment faster. To that end, the Committee agreed to undertake additional balance sheet actions only a few months ago. Today, we contemplate doing more. Certainly, the data flow since the last meeting was a bit softer than I had expected, but not sufficiently so to warrant a further expansion of our balance sheet. In that regard, I note that the Tealbook had pulled forward the timing of the first rate increase since our last meeting.

As I weigh the cost of action versus the status quo, I have appreciated the thoughtful analysis of Board staff and a number of my colleagues around this table about the effects of another asset purchase. Unfortunately, I find that the risks associated with further action carry less precise measurement, but, to the extent they are possible, pose significant cost if realized. Impairing market functioning in certain financial markets, the potential for the Federal Reserve to experience financial losses in the future, and risks to financial stability due to the extended low rate environment all strike me as significant when weighed against potential benefits. A larger balance sheet also has the potential to further complicate an exit strategy.

Another LSAP also may have near-term adverse consequences. Given the recent rise in gasoline prices, additional asset purchases could generate a further rise in oil and gasoline prices, which would weigh on middle- and lower-income households and, thus, partially offset estimated benefits.

I also remain concerned that a balance sheet expansion could at some point raise inflation expectations. Longer-term measures of inflation expectations, or breakeven inflation, appeared to respond strongly to past LSAP announcements. Given that current longer-term breakeven inflation measures are consistent with our stated goal, I am concerned that another LSAP program could push longer-term expectations above a level consistent with our objectives. If this were to occur, we would face a difficult tradeoff between allowing longer-term expectations to drift higher or reversing course by reducing the size of the balance sheet. Either option strikes me as damaging to both the real economy and our credibility.

In terms of the forward guidance, I agree with those who note the time-contingent guidance has been problematic. And so conceptually I agree that the state-contingent guidance is preferable as long as we can articulate this guidance in a manner that is fully consistent with our January 2012 strategy statement, including our assessment of risk to the financial system. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Thank you, Mr. Chairman. As I mentioned yesterday when I made very short comments about the economy, I would interlocutate today at greater length [laughter], so I ask you to bear with me.

We seem to be mesmerized by the siren call of LSAPs. I can't sing like Orpheus, and I know I will have no success in tying you to the mast or stuffing wax in our crew's ears. So what I am going to do is simply give my very best advice as a loyal officer on your ship. I believe we are getting further off course. I believe we were misled by our navigation equipment. We have very sophisticated models, and we have a superb crew of analysts but, as you yourself said yesterday—and I quote—"nobody really knows what is holding back the economy, and nobody really knows what really works."

One thing I learned as a midshipman at the Naval Academy was that great battles at sea or on land are fought with modern tools, but they are decided ultimately by judgment. And—always—one listens to and respects the elements. I think everybody agrees at the table that inflation is not an immediate or presently foreseeable threat. Our desired port, given our mandate, is increased employment. I happen to believe personally we are way off course. I believe we are ignoring, at our peril, the elements. I have reported from my watch station again and again that the very people we wish to stoke consumption and follow demand by creating jobs and expanding business fixed investment are not influenced by our policy initiatives—that is, by our LSAPs.

Small and medium-sized businesses are job creators, and yet the soundings, as mentioned yesterday by President George, of the National Federation of Independent Business' surveys and others, tell us that over 90 percent of those businesses are either not interested in borrowing or, as I mentioned yesterday, have no problem accessing cheap financing. Monetary policy is not on their radar as a concern, except that it raises fears among some of future inflationary consequences. Their principal concern, as President George mentioned yesterday, is with fiscal and regulatory uncertainty.

With regard to fixed investment and job creating cap-ex, as I said yesterday, the math is pretty straightforward. Big businesses dominate that theater, and again and again I have reported to this Committee that with some exception—Disney, for example, being one led by a very clever contrarian CEO—90 percent or so of those I survey will simply not be motivated by further cuts in the cost of capital to invest in job-creating cap-ex beyond their maintenance needs. And this is due to the uncertainty of taxes and final demand and federal spending prospects.

This time, as I mentioned yesterday, I asked my CEO contacts if their cost of borrowing were to decrease by some 25 basis points or more, how they would react. Would this induce them to spend more on expanding payroll or job-creating cap-ex? And the answer from 9 out of 10 was, you could cut the cost of borrowing by 1 full percentage point and we'll use it to buy back stock. That's what we're being directed to do by our board. Governor Stein mentioned the Duke's Fuqua School survey yesterday, which is even more comprehensive.

But one of my CEO contacts, by the way, reminded me of the work I used to do for him and the company he then managed going back to 1975, and our recommendations for strategic or green field investments. We focused on ROI: As long as you get paid back and as long as you earn a profit, you can justify it to your shareholders. And presently—and perhaps because of what we have already initiated—the cost of capital, as President Dudley mentioned earlier, unlike the conditions of 1975, is just not part of the calculation. And if they are going to be buying back stock, as they are being directed to by their boards, there is, to be sure, a wealth effect. But based on the people I talked to, it just does very little to result in job creation sooner rather than later. I'll give you a specific example. This is inside information and off the record. A company that ordinarily has cap-ex expenditures between $15 billion and $20 billion a year and has the option presently to either lay cable and facilities that would expand their 4G network to 90 percent of the country or buy more stock has been directed by their board of directors to buy more stock because of the economics that these low interest rates make possible. Even though it strengthens their balance sheet, it defers their job-creation capacity.

Again, I am suggesting, as one of your loyal crew, respectfully, that the efficacy of the course you are leading us upon is questionable. My best guess is that we will end up this program, if we proceed with B, with excess reserves that exceed $2 trillion and money lying fallow, unused, and underutilized toward achieving our goal of increased employment.

When we last talked, it was suggested that perhaps my interlocutors were unsophisticated and didn't see the whole picture. I note now that some sophisticates have come to question the efficacy of this LSAP cruise, among them Mr. Woodford, who has been talked about excessively at this meeting [laughter], and my friend and respected economist Bill White, who has not been mentioned whatsoever. Using monetary policy to overcome bad fiscal and regulatory policy is, to my mind, not only faulty but a pyrrhic strategy. It won't work, and it may be used against us in a backlash and lead us onto the rocks.

Now, all of that said, Mr. Chairman, you're the captain of the ship. It appears that you and many of our colleagues wish to now plot a course with coordinates outlined in B. We have decided to proceed, and we have instructed our boiler room, as we say in the navy, to pour out another $750 billion or so in steam, and the boiler room has replied, "Aye, aye." This is doable, and the staff has indicated that "the challenges posed by exit remain manageable," though I do sense some timidity in their confidence. There are warnings in the memos on LSAPs that exit following an even larger program can probably not be accomplished without violating what the Committee has heretofore said is our exit strategy principle. The engine room has replied, “Yes, we can do it.” But there are murmurs among the crew that their conclusions are subject to—and I am taking words out of the LSAP memos—“substantial uncertainty,” and they couch their responses with qualifying phrases like “currently judges” and “would likely” and “seems plausible.” And as I said, listening to Seth very carefully yesterday, his qualifications or his disclaimers sounded very much like an Allegra commercial. But, again, you’re captain of the ship; you’ve decided to proceed on a course. The course is outlined in B. Bill tells us that it may aggregate to another $750 billion or so depending on how much time we let this run. I am a member of your loyal officer corps. And even though I doubt the efficacy of what we wish to do, and in fact feel that this is most definitely not the right course, and feel that this course may, as President Lacker just said, compromise the Fed’s security with regard to its independence, my job is to give you the best advice I am capable of rendering. Your decision is to steer us along a course outlined in B. I would say that the least worse of the options in Tealbook B is alternative B, regular B, the first paragraph 5.

I sent around a memo earlier in preparation for this meeting, and I argued that one could make the case that this could help offset the drag from higher GSE fees, lower mortgage−Treasury spreads, even though they are quite low, and help one of the three positive durable goods sectors that is assisting the recovery, the others being aircraft and motor vehicles. It is still operating below long-run potential, so there is very little danger, in my view, of inducing cyclical mal-investment. In addition, the general effects of inducing more refinancing may aid housing and households in ways that we can’t quite quantify.

Paragraph 5′ may be laudable in the minds of some at this table. We've heard good arguments for it. But I agree with President Lockhart, and—I believe—President Lacker, that it is going too far too fast, that we are rushing it, and I would recommend against it. I am referring specifically to the 6½ percent unemployment rate and 2½ percent inflation cap over the one- to two-year horizon. You have the phrase that "longer-term inflation expectations continue to remain well anchored" attached to that, but my guess is just ooching the now commonly accepted medium-term or longer-term target of 2 percent by one-half percentage point would raise eyebrows and doubts amongst our skeptics, and some question marks, no matter how we state it, in the marketplace.

If you wish to proceed on this course, Mr. Chairman, my advice is to go with the Tealbook's alternative B, not B′. Specifically, I would go with $30 billion, the lesser number. As Bill English said yesterday, it allows some ramping up in case the Committee decides, against my advice—and others' like me—to do more. A $30 billion program, if I understood the Desk yesterday, on a flow rate basis means we are already taking down 60 percent of supply.

I would edit paragraph 4 to take out reference to "additional asset purchases." I would leave it more vague by simply referring to employing "its other policy tools as appropriate." And after the phrase "in the context of price stability," I would add "and well anchored," another great naval term, "and well anchored inflation expectations." We have it in B′. I don't see why we don't have it in B. This is enough, in my mind, to bind the hands for some time to come for all of those who are with you in the wheelhouse of the ship we're steering. It is going to make it very hard to raise short-term rates, as I mentioned yesterday, even if we end up with a stronger recovery than we currently foresee or imagine.

I would recommend, as I suggested in my memo of last week and discussed yesterday, that in your press conference you emphasize that this is to help along the recovery in housing. I would advise that you say that the majority of the Committee concurs, but emphasize that the Committee, as you said yesterday you would, will be constantly scrutinizing the efficacy and costs of the program. In other words, Mr. Chairman, I would take ownership of this issue. It is one of the distinct areas of recovery. It is an area where I believe we have had impact. I did support the MBS program when it was originally announced. I think it is vital for regular people, not just for economists.

The headline you should be seeking in *USA Today* should be “Bernanke Acts to Support Continued Housing Recovery.” You mentioned yesterday you plan to speak in different terms than usual, making it more simple and directed to what you referred to as the “average person.” I think that’s good. You’re a great teacher. I saw you do that most forcefully and effectively when you visited Fort Bliss. And as I mentioned in our phone conversations last week, your objective should not be to communicate to a few dozen sophisticated economists about this model or that model. It should be to convince—what was referred to in the last meeting—the unsophisticated interlocutors who run America’s businesses, and the consumers who buy the goods and services produced by those businesses, and the press, particularly what the consumers read as opposed to the reference literature.

So, in summary, Mr. Chairman, I disagree with this course. I think it is a mistake. It steers us closer to the rocks. But I have offered you my best advice under the circumstances. I wish you luck. I will do my very, very best in my public appearances in the upcoming week to support what we are going to announce, even if I have to take Allegra to do it. [Laughter] Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. There are two policy actions under consideration today. One is additional asset purchases, the other is an effort to extend and strengthen our forward guidance. I would like to make a few comments about each of these.

As I explained in the earlier go-round, I am not in favor of undertaking a new round of asset purchases today. In my view, the forecast has not changed enough to warrant further action. Indeed, many of the Tealbook's simple rules on page 2, Tealbook B, including the outcome-based rule, suggest that policy is approximately well calibrated. Just like President Bullard, I do not see the urgency for large, aggressive actions at this time. I'll remind the Committee, we didn't move earlier this year as the economy brightened and the outlook looked better. We did not take action. We were patient. It turned out to be the right decision. The economy then weakened. But we seem to be anxious to do further accommodation every time we see weakness and not do the reverse as the economy strengthens. The message I take from that is that we need to be patient, that we need to not react to short-run fluctuations.

The recovery is frustratingly slow. The unemployment rate is uncomfortably and tragically high. But, again, we have been told and we understand there is reason to expect this, given the size and nature of the economic shocks that have hit the economy. The slow recovery, in my mind, is not evidence that our monetary policy stance is inappropriate. The benefits of further asset purchases in curing what ails the economy are imprecise and tenuous at best. Indeed, the Board staff memo lays out numerous caveats and assumptions necessary in assessing the possible benefits of further asset purchases.

While financial participants may be chomping at the bit for a new program, many economists throughout this country have raised doubts about the efficacy of such a policy strategy. Despite sizable purchases and zero interest rates for four years, unemployment remains elevated. But rather than question the efficacy of the policies, which would seem natural, our strategy seems to be to double down. Now, the further sizable expansion of the balance sheet carries costs and will greatly exacerbate the challenges we face when it comes time to exit, as I talked about yesterday. In my view, embarking on another asset purchase program at this time is a highly risky strategy. The consequences may prove very disruptive to the U.S. economy and harmful to the reputation and credibility of this institution for years to come. We should not ignore these risks, even for the best-guess outcome—a 50 basis point drop in the unemployment rate over two years.

The proposal in alternative B is for a flow-based program. But to me, this seems to run counter to the theory of how such purchases are purported to work in the first place and the logic we have used in the past. If we believe that the effects of purchases are through a portfolio balance channel, then the public needs to understand the stock of securities the Fed intends to buy. The Board staff memo on the flow-based balance sheet policy says that the conclusion of the simulation exercises, and I quote, "reflects the strong assumptions that investors, price-setters, and wage-setters all understand the Committee's goals and its stopping rule for the flow LSAP." How do we communicate that when we ourselves don't even know what that stopping rule will be? It is remarkable to me that the Committee has not been able to communicate to the public our reaction function for setting the funds rate even in normal times. And now it seems we expect the public to believe and understand what our reaction function will be for LSAPs and balance sheet rules. LSAPs are not a nimble instrument. If this program doesn't produce the desired results or the predicted outcomes for the unemployment rate, what will we do? I would predict that with a flow-based program, if we don't get the results, we won't stop. We will continue. How will we know when to stop? We seem to have convinced ourselves that such a policy is effective and important. Maybe so. If it proves not to be, and we don't get the desired results, will we just keep on buying assets, reevaluating, and say, "Oh, yes, it's going to work. We just have to do some more." I am not terribly confident of our ability to manage that effectiveness and give us a stopping rule.

If we get the reaction function wrong, and we find ourselves with ever-more larger balance sheets, the Fed may face balance sheet losses, no returns, no flows to the Treasury, or unacceptably large losses of some kind or another. This could undermine our ability to implement an appropriate monetary policy in the future, to the detriment of both households and businesses. Now, if the purpose of the balance sheet expansion is as a commitment device to keep rates low for longer precisely because it makes it harder to exit, then we need to be explaining this. We don't tell this to the public. We need to be more communicative about what we expect our policy to achieve and why we are doing it, and we're not doing that. How do we expect the markets to understand this when we are reluctant to say so directly ourselves?

This leads me to the issue of forward guidance, the other policy tool under consideration, either in conjunction or separately. The intent of our forward guidance is for the Committee to commit to holding interest rates lower longer than it normally would after the economy begins to recover. The idea, as President Kocherlakota said, is that the commitment to do this is supposed to signal to households that the future is going to be brighter. The future is going to be more economic growth, higher spending than they otherwise might anticipate. And this helps stimulate less saving and more spending today. The strategy works well in many of our models. Agents are completely forward-looking. Many of those have expectations that are right. But implementation, in my view, is very tricky. One needs to get the expectations right.

We wouldn't want the public to believe that we will let inflation run away from us, of course. Michael Woodford has argued that there are ways to implement this strategy. He has given us two examples—an earlier one is a price-level-targeting strategy and, of course, recently at Jackson Hole, nominal GDP targeting. I see the problem with this strategy in implementation, not the conceptual idea. First, it presumes that households and businesses will correctly interpret our guidance and what it means, and that it means future growth will be higher. But it seems just as reasonable to assume, and perhaps so far that has been the reaction, that they will read our actions as a signal that we believe the economic outlook is going to be a lot worse for longer. The public does not have that positive outlook, and if we don't convey that to them in very strong language, the strategy won't work. It will not bring spending forward.

This strategy requires us to manipulate the public's expectations in a very particular way. That's the communication challenge with this strategy. To follow the strategy requires placing a lot of weight on our ability to communicate. You will recall that this Committee decided not to adopt price-level targeting not too long ago and did not adopt nominal GDP targeting when we had the opportunity to do so. And we rejected those for a variety of reasons, one was communication and, of course, with nominal GDP targeting, one of the major issues was defining what the right level of real GDP needed to be. We found those both either risky or difficult communication strategies.

What do we think that we have done now that will overcome those problems? Why do we think that the thresholds will overcome those difficulties? We seem to be willing to implement the strategy in a half-hearted way. I'd note that I have been a strong advocate, and continue to be a strong advocate, for systematic reaction functions. It is very important to this Committee. But 5′ is not a reaction function. Paragraph 5′ says nothing about what happens, for example, after we pass one of the thresholds. And this is very important, because the public doesn’t understand what our reaction function is in normal times—or we don’t know what they perceive it to be necessarily—and we are not telling them what it is going to be afterwards. Let’s suppose, for example, that the public believes that after we reach the 6½ percent threshold, and we say nothing about what we will do after that, they presume we may go back to the Taylor rule. Well, if that’s what they expect to happen, it would lead perhaps to a view of very fast tightening of policy after we get to the 6½ percent unemployment rate. That would undo some of the positive effects that we are trying to gain by this forward guidance. If that turned out to be the case, then this strategy won’t work. How do we make that commitment? The public has to believe, beyond just the thresholds, how we are going to conduct policy, and as of now we haven’t explained that. I don’t think we agree amongst ourselves enough about what our policy reaction function is, and as much as I desire a more contingent economic-based reaction function, I don’t think the thresholds help us very much there. The language in alternative B(5′), again, says nothing about how we will behave afterwards.

In the end, I agree with Woodford that LSAPs are perhaps ineffective. But if we are going to adopt forward guidance and use that as our powerful tool, we need a much more deliberate and extended communication strategy to lay the groundwork to explain how our reaction function and how our policy strategy are going to work, and a communication strategy that convinces the public that we are serious about it, so that they understand how it works, if we are to get the outcomes that we want.

Obviously, I am not in favor of B. But if I had to choose, at this point I would choose 5 over 5′, not because I don’t like the direction that 5′ is headed, I’m just not sure it is ready for prime time yet. I’ve never been in favor of the calendar date. It has created many problems for us over the last year, and I am anxious to get rid of it. But we need to get rid of it not by a one-time change in a statement. It is going to take more preparation and more analysis. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. Unlike some of my colleagues, my policy statements have usually been on the shorter side because I have generally been supportive of the version of the policy alternative that the Committee has eventually adopted. I'm finding today's policy decision much more of a struggle. So I'm going to take a little more time than usual to explain my policy position and to share my views on the benefits and risks of additional policy actions.

With the unemployment rate at 8.1 percent and the August employment report as disappointing as it was, I would like to see the expansion proceed at a faster pace. I know that we all would. So the question on the table is: Can additional monetary policy accommodation spur economic growth and improve labor market conditions? And if so, which actions would be most beneficial and pose the least risk?

I agree with the staff assessment that large-scale asset purchases have been effective. Our first LSAP program was effective at the early stages of the financial crisis when financial markets were in severe distress. Our second LSAP program was effective when it was launched in 2010, a time when financial stress was still significant, the risk of falling back into a recession was high, and the risk of an outright deflation was very real. Our LSAP programs provided strong support to financial markets and helped to appropriately realign inflation expectations. In today's circumstances, I see the benefits of another LSAP program as being far more limited.

The circumstances that prevailed when we initiated our previous LSAPs are not evident today. Financial markets are not in disarray, and deflation is not a serious risk.

I also worry that another large-scale asset purchase program carries the risk of complicating our ability to withdraw policy accommodation smoothly and in a timely manner, as well as the risk of exposing us to reputation risk in the event that we incur large financial losses.

I commend the staff for doing yeoman's work to develop exit tools, to identify some of the potential complications of operating with a very large balance sheet, and to simulate our balance sheet under various assumptions. I know that we've taken precautions, but it is impossible to be fully prepared for the environment that we might actually face three years from now. So after putting together my thoughts about the benefits and risks associated with the available tools and considering my economic outlook, I was not in favor of launching another large round of asset purchases along the lines of alternative B as it was originally proposed in the Tealbook. That option called for the immediate launch of an asset purchase program until labor market conditions substantially improved, and the purchase program was committed to run at least through mid-2013. That option also called for an extension of the forward guidance on the fed funds rate through mid-2015.

I recognize that the strategy behind this policy option is predicated on the theory that additional monetary policy accommodation will only reduce the unemployment rate substantially if this Committee actually commits to act aggressively and persistently until that goal is achieved. I understand why the commitment strategy works so well in theory, but we have not had much practical experience to learn from. I understand the value of commitment, but commitment can take many forms. I think there's value in waiting a little while longer before deciding to initiate another large-scale asset purchase program. The Committee's better choice at this juncture is to find a way to commit through forward guidance about the federal funds rate liftoff and not to launch a significant asset purchase program. I'm of the view that easing monetary policy through forward guidance has also been a powerful tool for reducing long-term interest rates.

As I noted, I think that our first two LSAP programs were successful in countering financial market stress and deflationary pressures. We may yet encounter a crisis—either from the fiscal cliff or from Europe—that once again causes serious financial market distress or deflationary pressures. We would be better served by using asset purchases in response to these kinds of threats or the threat of a recession than to try to eke out a little more economic growth in the current circumstance. In coming months we may know more about the prospects for fiscal policy and for Europe and about the outlook. It's valuable to have the option to respond directly to these situations, and launching a full-blown LSAP program today reduces our flexibility.

For all of these reasons I have preferred to wait for the completion of our maturity extension program at the end of the year before deciding whether to purchase more long-term assets. However, it was clear at our last meeting that many other Committee members judge that additional policy accommodation might likely be warranted even sooner, and last week's disappointing employment report seems to have been the decisive piece of evidence for some members who have been waiting for more proof of the economy's lethargic condition.

While I still have reservations about some of the specifics of the proposal, the version of alternative B that is now under discussion offers the possibility of an acceptable way forward. For one thing, even though alternative B does call for expanding our holdings of long-term securities in the next several months, it does so through the acquisition of MBS. Because some research does suggest the MBS purchases can be more impactful than Treasury purchases, I like this aspect of alternative B. But I would also prefer the smaller amount of MBS purchases—that is, the $30 billion per month.

One option in alternative B also allows for the possibility that the Committee might deploy tools other than, or at least in addition to, large-scale asset purchases if in coming months we conclude that additional easing steps are warranted. I was going to suggest some changes to the second sentence in paragraph 4. I preferred that we delete the mention of "additional asset purchases" and instead state that "the Committee will continue its purchases of agency mortgage-backed securities" and is prepared to "employ its other tools as appropriate until such improvement is achieved in a context of price stability." But I do like President Lockhart's suggestion that we insert "may" in front of "undertake additional asset purchases and employ its other policy tools." I think this flexibility of phasing in more accommodation in various ways as needed could prove to be helpful.

In addition to beginning MBS purchases, alternative B eases policy through forward guidance. I like, as many others have already indicated, the state-contingent concept in paragraph 5′, but I regard the 6½ unemployment rate and the 2½ inflation rate to be much too aggressive and risky. If the natural rate of unemployment turns out to be 6 percent or larger, I think that not lifting the fed funds rate until the unemployment rate falls to 6½ percent risks some build-up of unacceptable inflationary pressures. I know there are safeguards built into the forward guidance to prevent an unacceptable increase in inflation expectations, but we should be more humble about our ability to forecast these conditions with much precision. Presidents Lockhart and Lacker both laid out some risks to using a number for the unemployment rate, and I agree with their thoughts. But if we decide that we have to include a number, a better approach is to set the unemployment rate to "at least as low as 7 percent" and to keep inflation at "close to

2 percent." These settings give us more flexibility. Without that extra flexibility, I do not support paragraph 5′, and instead I support the language in paragraph 5.

In conclusion, even though my preference is to wait, I can support alternative B with paragraph 5 today. Even though some MBS purchases would begin right away, expanding the scope of policy accommodation even further is going to require the Committee to vote once again in coming months on the size and the structure of the policy change. This buys us some time to determine exactly what the Committee means when we say that we want "the outlook for labor market conditions to significantly improve." It also buys us some time if the outlook does not significantly improve to decide whether additional asset purchases would then be the best course of action. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I support alternative B. My preference is for purchases of $40 billion MBS a month, and with respect to forward guidance, my preference is for 5′.

The data we have received since our August meeting provides yet further confirmation that economic growth is proceeding near or slightly below the economy's potential, and downside risks continue to be substantial. For quite some time, the Committee has been in watch-and-wait mode. We've patiently monitored the economy to see whether the MEP and our forward guidance would be sufficient to produce a stronger recovery. The verdict now seems clear. Absent further policy action, I see little chance that unemployment will decline in the foreseeable future. We should not delay action any further. Indeed, I hope we will send the message loud and clear that we intend to provide additional accommodation through new asset purchases until we observe substantial and sustained improvement in labor market conditions, and will maintain policy accommodation for an extended period as the recovery strengthens.

I support the open-ended and conditional nature of the asset purchase program in alternative B. I think it's very helpful to spell out the goal of the program and to articulate the economic conditions we'll need to observe before halting those purchases. In particular, we should promise to add accommodation through asset purchases until the outlook for labor market conditions has improved substantially, and we would stop doing so only if our outlook for inflation or assessment of the efficacy and costs of the program changes significantly. The challenge with such an open-ended program is that its effectiveness will depend on market expectations of the ultimate size of our asset purchases, and we're offering no clear guidance on how long we expect them to continue. In addition, we've included some escape clauses relating to efficacy and costs. I, therefore, think it's important that our public communications, including the Chairman's press conference, emphasize our commitment to continue the program until we have seen ongoing and sustained improvement in labor market conditions.

Even though the open-ended nature of the program creates challenges in shaping expectations, it also has the very desirable property that market participants should adjust their expectations about the size of the program in response to changing economic conditions. And this means that the program should induce stabilizing movements in financial conditions as expectations adjust automatically to incoming data indicating a stronger or weaker economic outlook.

There's been quite a bit of debate both inside and outside the Fed about the likely economic impact of asset purchases, and there is sizable uncertainty about the effects of LSAPs. I appreciate ongoing staff efforts to refine our estimates of these effects. Nonetheless, in light of the evidence that I've seen, I'm persuaded that this program can be a helpful tool for achieving our objectives. And while I'm mindful of the implications of further asset purchases for capital losses and remittances down the road, these concerns pale in comparison to what I view as the potential economic and human costs of failing to reduce the unemployment rate as aggressively as we can. I'm hopeful that a determined commitment to continue providing accommodation until we achieve more rapid and durable progress in attaining our employment goal may bolster household and business confidence and spending. Any stimulus provided through this channel will boost its effect relative to the staff's estimates.

I think it makes sense to direct our new purchases to MBS to provide additional support to the housing market, and I support purchases at the higher rate of $40 billion per month, which is a rate that in the Desk's assessment could be sustained for the next year or two. Consistent with the open-ended approach, I'd be prepared to scale the flow of these purchases up or down as the economic outlook evolves. If this flow of purchases is maintained through the middle of next year, our holdings of longer-term securities would increase by about $800 billion, which I think is large enough to have a substantial economic effect.

Paragraph 4 of the statement spells out the conditions under which we will provide additional accommodation through asset purchases. Paragraph 5, in contrast, concerns the conditions under which we will maintain the level of accommodation that's reached when our asset purchases end. If we end up adopting 5 rather than 5′, I consider it critical to make clear that an extension of the expected calendar date to mid-2015 is intended as a policy shift to improve the economic outlook, and that it does not convey a downgrading of our outlook in the face of disappointing new data. Whereas our previous language tied exceptionally low levels of the funds rate to economic weakness, the new language incorporated into the beginning of B(5) is much more positive, and I think it's a very significant improvement.

As between the alternative versions of paragraph B(5), while I can support B(5) today, I strongly prefer version 5′. We contemplated a formulation along these lines when we introduced calendar-date guidance in August of last year, and we have discussed this formulation extensively for many months now. President Evans, in his speeches, and Presidents Kocherlakota, Williams, and Rosengren have explained in detail and very persuasively why a formulation like this makes sense. I don't want to go over the arguments again that they have set before the Committee. I simply think that clarifying the economic conditionality of the funds rate path is useful for precisely the same reasons that it's useful to tie our asset purchases to economic conditions. And I also think—a point that President Kocherlakota emphasized—that the language has the possibility of bolstering household and business expectations about their future incomes, and this would be a very important mechanism potentially for supporting additional spending.

In summary, I support the provision of additional monetary accommodation. I anticipate that continuing our additional purchases will be warranted well into 2013. I also support 5′ today and hope that if we end up going with 5, we will make further progress in future meetings on refining our forward guidance.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. I prefer alternative B. As I've been saying for some time now, I believe it's important for us to take stock of our remaining tools and make sure that they're used to maximum effect. I do not view reducing the IOER or any sort of discount window program to promote lending to be viable options. So for me, that leaves us at asset purchases and future guidance about the fed funds rate.

I find the idea that the MEP has just as much efficacy as the LSAPs to be plausible, and I supported both the original program as well as its extension through the end of this year as an accommodation move. If the MEP does the job on long-term rates, without increasing the size of our balance sheet or drawing the same criticism as LSAPs, so much the better. But in not drawing criticism, the MEP might also be less visible and thus less likely to engender a confidence effect. So it's important to not only use the tool, but to be quite vocal about our estimates of its potency.

In addition to continuing the MEP, I'm in favor of adding purchases of MBS. There have been many discussions in this building about how LSAPs work and the extent to which long-term rates affect equity prices. I'm not, frankly, quite sure about the equity effect, but I'm 100 percent certain that interest rates have a direct effect on real estate prices, and house prices are important components of household wealth. They affect the number of households underwater on their mortgage, and, most important, rising prices help instill the confidence to buy a house either to live in or as an investment.

Reductions in the yield on mortgage-backed securities have not necessarily translated to a one-for-one reduction in home mortgage rates, as the primary–secondary rate spread remains unusually wide. So our purchases of MBS could very well translate into additional profit to lenders rather than cost reductions to homeowners, but ultimately, that additional profit should entice additional capacity and competition into the market that will reduce the cost and increase the availability of mortgage credit. And while much has been made of the benefit to the economy as homeowners refinance into lower payments and free up cash flow for spending, that reduced payment for the homeowner translates into reduced income for an investor, and it takes some pretty heroic assumptions about the differences in propensity to spend for that channel to make a big impact on consumer spending. Still, I think the confidence and wealth effects, along with the incentive for increasing capacity, make this a step worth taking. I confess that I might have been on the fence with this if the employment numbers had been better, but given their weakness, it's hard to argue that we've been watching closely and still haven't seen any reason to take action.

For my policy preference, I start with the desire to finish out the MEP rather than throw it overboard and replace it with something else. Although it's something of a coincidence that the MEP runs out as we approach the fiscal cliff, it's also something of an advantage. It gives us a logical point to take stock of the consequences of reaching the cliff and its resolution. To be clear, I don't view it as a potential stopping point. On the contrary, I think it highly likely that it will need to be a point of escalation, and I want to make sure that we have some additional fire power left. I know this goes against the grain for those of you who believe we should launch everything we have as early as possible in order to strengthen the economy enough so it can withstand potential shocks, but those who subscribe to that idea are probably a lot more convinced than I am about the actual power of our tools. I, frankly, don't believe these tools are powerful enough by themselves to strengthen the economy enough so that it will withstand those shocks, but I do believe that, in announcing their use, there's a confidence effect that can change expectations and halt or slow a downward slide.

I am willing to entertain the possibility that we are approaching the point where we resemble the wizard behind the curtain. [Laughter] If so, I want us to continue to appear great and powerful in the face of economic weakness for as long as possible. That is, I believe that our actions still have the potential to inspire confidence over and above any other possible channel through which they can work. But if confidence is the most potent channel, the when and how of new announcements becomes a tool in itself.

The Chairman was telling us at dinner last night that he had the opportunity to go and visit the Washington Nationals' batting practice and meet the players, and one of the players came up and, upon finding that he was the Chairman of the Fed, said, "Hey, how about that QE3, man?" [Laughter] I think this is evidence that there's a whole world of people out there who have no idea what QE3 actually means or what monetary policy is. They don't know the Taylor rule, and they haven't spent much time thinking about the Woodford paper. [Laughter] They won't read the whole statement or tune into the press conference, but they will likely know that the Fed did something and that that something should help the economy.

In the spirit of conserving some fire power for what I view as a potential two-step action, I prefer to add only $30 billion per month in MBS purchases. It establishes the 60–40 split that was assumed in the capacity memos and leaves room to escalate the amount of MBS, add Treasury purchases, or commit to a $1 trillion program as levers to be pulled if conditions deteriorate, as I fear they might in coming months. My own judgment is that a commitment to a large program will prove to be a stronger action, but that we can always change from open-ended to a stock commitment. It would be much tougher to try to go in the other direction.

In paragraph 4, I prefer to exclude the mention of other policy tools, as those other policy tools could be interpreted as an intent to use the IOER or a lending program, neither of which I support.

I prefer paragraph 5 over 5′, especially at this meeting. The action of adding MBS purchases to the MEP is already going to be a little complicated to communicate. Have we or have we not launched QE3? So our communication focus should certainly be on that action in this meeting. Use of a date in the forward guidance is familiar and it's expected. While I'm sure there's going to be an ongoing discussion, I would still continue to use the date, but over time, explain that it represents a departure from our standard policy rules and our own historic reaction function. I found the memos about delaying liftoff until there was a greater certainty about the likelihood of return to the zero bound to be very reasonable and explainable, and it would be helpful to convey that we are also anxious to get back into a more normal environment.

I have real concerns about expressing our policy in terms of specific triggers. We worked hard on the statement that put the 2 percent target out there, and I'd hate to create an impression that we're now raising it. I'm especially reluctant to specify the unemployment rate as the single employment data point guiding our actions. First, there's always the risk that it's perceived as too high or too low, and one has only to look at the most recent employment report that clearly showed weakness, even though the unemployment rate dropped two-tenths, to get a little nervous about tying fed funds expectations to that single number. Indeed, last year as we saw a full percentage point decline in the unemployment rate, we were only kind of pleased about it, because it didn't happen in the way we expected.

Someone commented yesterday that we should begin to focus on how the general public receives our messages, and this is a really important point. I question whether the public will use this guidance formulation to adjust their expectations about policy. I think they'll hear these numbers as our targets. But if the consensus is to move to conditioning on economic outcomes, we should, at a minimum, take some time to set the table for its introduction. In addition, we should agree to leave this set-up task to the Chairman, and the rest of us should refrain from taking our own disagreements on the finer points public. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you, and I'd like to point out that the player's financial portfolio is probably bigger than anybody at this table. [Laughter] Governor Tarullo.

MR. TARULLO. Thank you, Mr. Chairman. My reaction when you told me about the player in question was he has an awfully good financial advisor. [Laughter] Let me begin by saying that some people have basically asked the question, why act now? For my own perspective, I don't think there is a particularly compelling reason to act at this moment, but that is only because I would have thought that action at any of the past several meetings would have been equally appropriate. Charlie, in response to your questions, why wasn't I or why weren't others inclined to act earlier in the year when there was a trio of pretty good employment numbers? The answer is that they didn't seem sustainable, just as the little bursts in the last couple of years hadn't seemed sustainable. If they had been sustainable, that would have called for some action. But here I think we are all seeing that the basic diagnosis of a bogged-down economy over the past few years has become a pretty persuasive one.

The second thing I would say is I don't think it is reasonable to oppose further action on the grounds that action taken in the past has not produced the complete, fast recovery that everyone would like to see. The real question is the counterfactual one: In the absence of action, in the absence of the LSAPs, what would be the situation now? And there I think, notwithstanding the efforts of some to deny that there has been any effect—I am not talking about people in this room—while one can debate reasonably and at length the actual amount of effect of the last couple of LSAP exercises, it is really hard not to see that there has been an effect, and the disagreement seems to be over how much.

Of course, we would all be happier if there had been a more aggressive set of policies to deal with underwater mortgages and housing a couple of years ago. I think in retrospect, as people write the history of the Great Recession following the financial crisis, the failure to move more aggressively on housing is going to be seen as the biggest of the policy mistakes, even bigger than maybe not going for a larger stimulus package. But it is not up to us to determine what everybody else does. We have to take the world as it is presented to us, and then balance the costs and benefits of the actions we can take in light of the good and bad decisions that other parts of the government and consumers and firms are themselves taking.

As Jeremy was suggesting yesterday, there is in any set of LSAP proposals an anticipated combination of what he termed the "hydraulic" effects and some confidence or quasi-commitment effect. I think it is hard to disentangle the two, even as we look retrospectively at the first couple of LSAPs. There is some case to be made, as some of the skeptics have suggested, that the conditions that obtained at the times of the LSAPs made what I have termed a confidence or quasi-commitment effect particularly salient at those moments. And that may not be quite as powerful right now.

But, again, in the face of all of this uncertainty, which the Chairman alluded to yesterday, we do have to make a choice. And it does seem to me that the costs suggested to date, while nontrivial, don't seem overwhelming. That is, they are a little bit more speculative than they are concrete. People are saying, "we worry that there may be some effect on market functioning," without specifying exactly what that effect would be, or "we worry that there may at some point be some effect on inflation or on our exit capacities," without telling a somewhat more filled-out story as to what they think those might be. While I would be shocked if there are not some unintended consequences, even of the LSAPs we've done to date, that is part of policymaking. There are always going to be some unanticipated consequences, and the best you can do is try to dig in as deeply as possible to spin out as many plausible outcomes as possible, and then make that balance. Obviously, from what I've said here, that balance is in favor of taking further action, as it has been before. And so I support alternative B. But I just want to make clear to those who have questions—Sandy and Dennis and others—that I share a lot of the uncertainty, and I don't have enormous conviction that anything we do now is going to be, as Eric put it, a game-changer. It is going to be something that helps, not something that resolves all problems.

On the 5 versus 5′ issue, Narayana laid out the two key considerations extremely well. First, that the use of the more-specified forward guidance could maximize the effect of LSAPs. That is a very important consideration. Second, and this was an extremely important point, he pointed out that 2½ could easily be consistent with a price-stability-only mandate just because of having tolerance around any goal that one is ever trying to achieve. To me, that might have suggested that perhaps, because we do have a dual mandate, there might be a different set of targets that would be adopted. But it seems to me, at the very least, Narayana's reasoning suggests why 2½ shouldn't be problematic.

I don't find the potential hysteresis argument or the potential rise in labor force participation to be dispositive here. I don't think Janet actually disagreed with me yesterday when I said that I had been surprised that we haven't seen hysteresis. And given that we haven't, it's probably less likely than we all thought. But even if you thought it was, how would it manifest itself? Presumably, it would manifest itself in tightness in the labor market and rising wages, which are going to pass through into our inflation projections. At that point, you'd say, "Okay. We are now seeing that the trigger or threshold has been breached."

There is something to what Charlie Plosser said about the market's anticipation of what happens as we approach the thresholds. When Charlie Evans was talking about this publicly, a very acute market observer commented offhandedly to me that he was somewhat sympathetic to this approach, but his concern was that there may be some expectation of pent-up and rapid increases, which markets would think would be coming depending on the circumstances as we approached—I think, at that time, Charlie's numbers were 7 and 3. I don't think that is something to disregard. It is probably something to take into account.

These are all good arguments piled onto the "why we all hate the date" argument for trying to develop something like what is in 5′. Having said that, I would remind all of you of the fact that I was initially—late last year and early this past year—hesitant to move in that direction for a couple of reasons. One, the communications issues, which several—most recently Betsy—have alluded to, are significant here. But I thought they were significant last spring, even in the absence of an LSAP initiative, which is going to take a little nimbleness to explain. The confusion with the policy statement—what do these numbers actually mean—is a real consideration. Though I should say, at the time, I had some hopes that a revised SEP could fill a good bit of the role of these thresholds or targets. Those hopes have subsequently been dashed. [Laughter] I now see the cost–benefit calculus somewhat differently, which is to say that the available alternative may not be as much of a substitute as I had hoped. I would say that, notwithstanding my strong sense that this is the right direction for us to go—for the reasons Narayana stated—and that optimally we would have been prepared to go that way right now, I don't really think the groundwork has been laid. Certainly not externally—I do think some underestimate the communications challenge that will exist.

Second, I'm not totally positive that we have laid the groundwork internally. Maybe we did eight months ago, but all of those memos and things are in the archives instead of right in the front of our computer screens. It would be a tougher case for me if everybody had converged around 6½ and 2½ because in those circumstances I might be inclined to say, "All right.

Communications challenge—Michelle is going to have a tough week, but let's take the 6½, 2½, which is probably, in the end, right, but that's not where we are. I would say that not taking an employment number means that you are not actually communicating very effectively at all because otherwise it is just qualitative verbiage. You don't really achieve what you are trying to achieve. In addition, saying a little bit over 2 is going to create even more communication problems because everybody is going to ask, "Well, how much over?" It doesn't really solve much, if anything at all.

There is not agreement on these propositions right now. It is clear that we don't have a consensus even among those who are going to vote in favor of alternative B on the numbers themselves, so we are probably not prepared to move in that direction. But I don't think that should dissuade us from doing a lot of memo writing and communicating over the course of the next couple of meetings to see if we can move in that direction together. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Raskin.

MS. RASKIN. Thank you, Mr. Chairman. Incoming data have been consistent with my expectations, reinforcing my view that additional policy stimulus is needed. The inflation outlook is subdued, and the employment outlook is unsatisfactory, so a balanced approach requires the providing of significant additional stimulus.

My comments will, again, focus on the communication channel. First, I think that some marginal monetary stimulus could be delivered, without incurring the costs associated with an LSAP, through the use of forward guidance that is dependent on the economic outlook. While I appreciate the fact that an asset purchase program and forward guidance are not perfect substitutes, I like 5′ because it is close to a costless way of providing some accommodation.

But even if we were not in agreement that more accommodation is necessary, I see little downside in shedding our adherence to a calendar date. The calendar date, as we have heard, is working against us. It is communicating that we are continuously downgrading our assessment of the future. Why not, instead, show households, businesses, and markets what we are looking for in terms of particular economic outcomes? Why not offer a sneak preview of what we need to see before we begin contracting? With such a preview and credible delivery, households and businesses and markets figure out how we are going to react. Providing that window, and keeping the panes of that window clean, reduces volatility and pessimism about our commitment to support a recovery. In mitigating this volatility and pessimism, as argued by President Kocherlakota and others, we maximize the effectiveness of the other actions being contemplated.

But we have been down this road before, so we ask, why now? Why move to forward guidance that is dependent on the economic outlook sooner rather than later? We should consider forward guidance that is dependent on the economic outlook sooner rather than later because there could be costs to putting this off. The primary cost is the permanent downward shift in expectations that becomes more probable the longer we wait. The longer we put off these contentious decisions, the greater the probability that we let stand the perception that there is a new, lower, slower trajectory of economic growth that we are comfortable with; the greater the probability we let stand the perception that the FOMC doesn’t adhere to the statutory directive of a dual mandate; the greater the probability we let stand the perception that we act forcefully when we are off the price-stability mandate but not when we are off the maximum-employment mandate; and the greater the probability we let stand the perception that 2 percent is a ceiling.

Forward guidance that is dependent on an economic outlook counters these otherwise pervasive and erroneous interpretations and perceptions. The longer we postpone correcting such interpretations and perceptions, the more pervasive, credible, and intractable they become. In short, we want to oxygenate the forward guidance before households and businesses permanently harden their expectations about both the future path of the economy and our future reaction to it. All of this argues for moving away from a calendar date sooner rather than later.

We still may not know what the right numbers are for insertion into a formulation like 5′, but we have all seen that in optimal control simulations under commitment in the FRB/US model, the unemployment rate is around 6 percent at the time of liftoff, and inflation never rises above 2½ percent. We have seen justification for these particular thresholds. Moreover, 6½ percent is still above the Committee's view of the long-run rate of unemployment. The forward guidance in 5′ has come a long way since we discussed it in August of 2011. It now contains a firm, definitive, non-vague inflation proviso. A problem we debated in the August 2011 meeting was the risk that moving the forward guidance from a calendar date to one based on economic conditions would dislodge inflationary expectations. In the current version of 5′, that possibility seems extremely unlikely. Instead, if inflation at a one- to two-year horizon were above the small ½ percentage point threshold of 2 percent, the Committee would be required to reengage on the federal funds rate debate, even if unemployment still exceeds 6½ percent. It is, to use President Kocherlakota's phrase, a threshold for conversation. These are hardly putting in place conditions by which inflation can brew silently, unchecked, and unaddressed.

At the end of this round, there are still some who say that the egg hasn't been cooked long enough. I might have to disagree, noting that I am not sure what we are waiting for. Paragraph 5′ could be in a form close enough to convince the public that the FOMC is following a different strategy; one that tries to achieve its employment mandate more forcefully than the public has perceived thus far; one that more credibly delivers accommodation and, at the right time, contraction, than the markets have understood thus far; one that has none, if any, of the costs associated with an LSAP; and one that may be necessary now to make the MBS purchases in alternative B more effective. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Stein.

MR. STEIN. Thank you, Mr. Chairman. I support alternative B. I will just comment on a few of the specifics. First of all, in terms of the flow rate of purchases of MBS, I would go with $40 billion per month, though I can't say I have a particularly strong view on this.

With respect to the trigger- or threshold-based policy described in paragraph 5′, I am quite sympathetic to the strategy. It has the potential to be of significant help. I appreciate and find quite compelling the arguments that President Kocherlakota and a number of others have made. There is really quite an appealing intellectual case to be made.

Now, having said this, I find myself in very close agreement with Governor Tarullo in terms of whether now is the right time to move forward. As he pointed out, there are two issues. There is the internal issue. We have to get this right internally. We have to really agree on the design and on the parameters. The numbers really matter here. If we don't coalesce around a reasonably strong version, one in which we make it clear that we have, as President Kocherlakota suggested, an ambitious unemployment threshold and some tolerance for a symmetric loss function on inflation, the intellectual case for it in some sense starts to disappear. That's one issue—we have to get that right.

Second, the external issue is also challenging, and the communication here is crucial. To give one example, something that is not clear in my own mind is, how would we respond to the following question? Have we really deviated from our previous forward guidance in the sense that now we are making more of what is really a commitment, in the spirit of optimal control, to do something that we would stick with, even if it's, in a sense, time inconsistent? Or, is it just a statement, well, that we've introspected, we have thought about our reaction function, and we have discovered in our souls that we have a different reaction function than we previously knew ourselves to have?

These are challenging things to explain, and it's absolutely important to get it right. The concern, then, would be that if we throw something this consequential and tricky into what is already a hard-to-parse statement in other areas, it could end up being somewhat counterproductive. Again, I very much have sympathy for the underlying idea and the principles, and I would hope that we could further develop and do more work on it. My own preference would be not to push it out the door in the next hour or two.

With respect to paragraph 4, this is the part I had in mind when I said it was already a little bit hard to parse. You get a flavor of this in some of the comments that have already gone around. In other words, it seems like it is really open to different interpretations. Some of you have, as I hear it, read paragraph 4 as a quite strong and open-ended commitment to continue doing asset purchases as long as it takes until the labor market improves. At the other extreme, the way I heard President Bullard reading the paragraph was, "Well, it doesn't really say much more than that we will do this for several months and then reassess where we are." You can certainly point to various forms of wiggle room in the phrasing. I suppose the truth is sort of in between and a little bit in the eye of the beholder.

For my part, I would align myself quite closely with President Pianalto. I appreciate the commitment arguments. I like the idea of having wiggle room, and that is because of my own understanding of the costs and the benefits, and that in spite of the fact that I do believe the benefits of past programs have been significant, I sense that we are verging into diminishing returns territory. Moreover, flexibility may be particularly warranted with MBS because there is a particular kind of market feedback that we might get reasonably quickly, which is to say—and Governor Duke mentioned this—there is this issue about the pass-through from MBS spreads to primary mortgage rates. We will see, presumably in a few months, whether that pass-through is weak or strong, and one might want to update one's policy based on that.

In any event, as we talked about yesterday, given the language in paragraph 4, this makes the press conference important. For what it's worth, Mr. Chairman, I thought that the trial balloon answers that you were floating yesterday struck a good balance here, so I was certainly comfortable in that dimension.

Given these two earlier points, one being that I think it is worth giving serious further thought to 5′, and the second being that there is some virtue to not getting overly locked in on asset purchases, I also—very similar to President Lockhart and to President Pianalto—was thinking about whether there is an alternative framing that would work here? And my thought was maybe we can lean just as far forward, or even a little bit further, on the general principle of giving accommodation if the economy doesn't strengthen but be more open as to whether that accommodation would take the form of asset purchases or a change in our guidance.

This could be done, in principle, either by rewording paragraph 4 of the statement or simply by the way the press conference is handled. In the former case, if it's done via the statement, you could rewrite the two key sentences—it's just a suggestion—as follows: "If the outlook for the labor market does not improve substantially, the Committee will continue to add further accommodation as appropriate until such improvement is achieved in a context of price stability. In determining the nature of such accommodation, the Committee will, as always, take appropriate account of the likely efficacy and costs of the tools at its disposal." It is less precise, and I take that to be in the spirit of what you all were thinking as well. The intent is not to back away from being supportive but to be a little bit more flexible in the tools that are used to provide that support. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Powell.

MR. POWELL. Thank you, Mr. Chairman. I will vote in favor of alternative B. My support for alternative B leans heavily on the language in paragraph 4 requiring us to consider the likely efficacy and cost of further actions when and if they are proposed and considered, and I join strongly Governor Stein and Presidents Pianalto and Lockhart in an editing of paragraph 4 that moves very much in the direction that Governor Stein just read.

I am a supporter of paragraph 5. I think that the arguments that have already been raised and vetted about 5′ are dispositive at this time. I will say that the two things that need to be done—the good news is there are only two things. The bad news is those two things are, first, the Committee has got to reach agreement on the desirability of moving to a state-contingent forward guidance. I'm very open to the intellectual appeal of that, but going around the table, it's quite obvious that we don't fully have that, particularly around the levels in the language and the conditionality.

The second is clearly the public communication aspect. There's nothing about it in the Jackson Hole speech. There really hasn't been any supportive discussion of it by the Chairman lately that I've seen. We could get ourselves to a place where this could be announced. It would be the work of some months both internally and externally, in particular explaining how it does fit in with the principles that we adopted in January. It's not something that can happen in the next 45 minutes.

I will also vote in favor of extending the guidance to mid-2015 as proposed. My own view of this is that the market moves the estimate of the liftoff date every day, and our proposed guidance doesn't contain any surprise element. The idea that the date can contain a negative, contractionary aspect is certainly plausible in a different setting, but not on the facts we face today.

Let me say a couple of comments about LSAPs. As I look back on the use of LSAPs so far, I too believe that the evidence supports the view that the effects of any LSAP are highly dependent not only on some mechanics, but also on the setting in which it is launched. The main driver of real effects is probably that of enhancing confidence, confidence that bad outcomes will be avoided, and that there is reason to hope for good outcomes.

In this view, it is really our credibility, the design of the program, and the setting that make it work. For me, an argument in favor of alternative B is that it is limited to MBS at a time when the housing market is consistently surprising on the upside. This alternative can be well explained and understood by the public as welcome support for housing as well as for the broader economy. So presented, it stands a decent chance to actually be noticed and appreciated by people who are neither Fed watchers nor professional market participants nor economics bloggers. I encourage an emphasis on support for housing in our public communications around this action.

My view is that alternative B can have positive effects on the economy but that these effects are likely to be quite modest, and I do come to that view without a great deal of certainty. It does seem clear to me that LSAPs have affected asset prices, and to deny that does call for—as was done in a certain well-mentioned Jackson Hole paper—that most hackneyed of all economist jokes that while it may be observed in reality, it will simply never work in theory. [Laughter] But of course, affecting MBS and Treasury prices is just the beginning. We need translation to rates that actually matter for private economic activity and then translation to the real economy.

Looking at the channels through which we believe our policies operate and the caveats, confidence intervals, headwinds, and multiple uncertainties that surround the estimates so well addressed in yesterday's meeting, my strong sense is that the real effects will be quite modest, and it is all too easy these days to find credible private forecasts that agree. The last two forecasts that I've seen both from well known, credible sources who happened to be broadly supportive of accommodation, point to estimates of unemployment effects of around 20 or 30 basis points for a program the size of QE2—use that as a rough proxy for this. That would be 300,000 to 450,000 jobs under those forecasts. That might be equivalent to bringing the recovery forward by a couple of months.

As far as the costs, I certainly agree that they appear manageable in the near term. There's enough risk and uncertainty about the medium and long term that if the view of the likely benefits is right, one would have to believe further that the likely costs are close to nil to want to proceed with a large LSAP. I also agree with President Bullard's point earlier in the meeting that the problem has not been the lack of aggressive monetary policy. As a separate matter, taking the Chairman's points from yesterday, I do not feel that additional aggressive monetary policy is likely to provide much of a solution.

I know that every member of the Committee struggles to balance these highly uncertain costs and benefits. I'm supporting alternative B with a certain lack of enthusiasm, and I am somewhat uncomfortable with the road that we are on. As others have mentioned, this is not

2008, 2009, or 2010. We're now using LSAPs as a straightforward jobs program. There is no credible threat of deflation, recession, or financial crisis, any of which could present a compelling case for action and the use of all of our tools, including LSAPs if appropriate. Again, these are concerns about the medium and the long term, not the next six months. My concern is that for very modest benefits, we are piling up risks for the future and that it could become habit-forming. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN DUDLEY. Thank you. My preference would be to act forcefully at this meeting. I'd favor alternative B, paragraph 4 as written, paragraph 5′, and $40 billion per month of agency MBS. Let me just talk about each of these a little bit.

With respect to the thresholds, what I hear around the table is that there's really a strong sentiment that thresholds can trump date guidance, and the thresholds that we even have today in 5′, in my mind, trump date guidance. But I do accept the view that maybe we can even do better, and so in my mind the tradeoff is really between is it better to do something today to have a bigger package or is it better to keep working on 5′ to try to improve the communication and have it come later?

I would prefer to do it all today as a package because if you do it as a package, it's going to have more force in terms of its impact, but I accept the fact that the Committee is not really quite there yet. I would hope that at least that the Committee would commit that we're going to bring 5′ home in the next one or two meetings. It would be very disappointing if we didn't do that because I think most people around the table view the date as really quite problematic.

The thresholds, as Presidents Williams and Kocherlakota pointed out, are more powerful than a date. The date creates a lot of uncertainty. When are we going to move it? Why are we going to move it? When we move it, why did we move it? Thresholds provide more information. The date implicitly rests on some unobserved variables, and so people essentially have to look at the date and then infer what the things are that lie behind the date. Why not just tell them what those variables are?

Some of the problem with the thresholds is the limits of the statement. The statement can only carry so much water, and we can't specify all the parameters that would go into our decisionmaking as the economy actually evolves. We have to recognize we're not going to get to a perfect 5′ because the statement just can't carry that water. We need to do the best we can and see what we can come up with. Then lastly, the dynamic nature of the thresholds far trumps the date guidance. The market will adjust automatically, and as people have said, that's an automatic stabilizer. So I'm reluctant to abandon 5′ at this meeting because it would make the action more forceful, but I do accept the pretty strong sense that a lot of people who don't want to do it this meeting would actually be pretty inclined to do it subsequently once the work on the communication was complete and once they were convinced that they got the best 5′ version that they could possibly get. I think we should keep going on that.

With respect to the rest of the statement, I would not want to alter paragraph 4 because it's critical to ensure the paragraph is forward leaning and implies the commencement of a new LSAP program should the economic situation not improve in a meaningful way.

As I see it, we need to decide now what we will do if the economy continues to disappoint. We'll do more and how we'll do more, and communicate this decision now because that will reduce uncertainty and support confidence, and that will support the recovery. In my view, if we postpone those decisions about what we'll do in the future if the economy disappoints, we just create more uncertainty about what our future policy actions are going to be, and that really undercuts the efficacy of the policy choices. Deciding today so that people know that there's more coming will actually create greater confidence about the Fed's willingness to support the economy. That reduces the downside risk and actually means, at the end of the day, the prospect is that we'll have to do less rather than more because we'll be acting today and supporting confidence today by communicating what our future actions will be.

All that said, I am very sympathetic with a number of people's remarks that don't put a very high weight on the power of additional LSAPs. I think LSAPs have modest effects on the level of long-term rates, and the drop in long-term rates does feed through partially to the equity market and the foreign exchange market but not one-for-one as in the staff projections because that would contradict the whole portfolio balance framework, which is the basis for LSAPs.

In assessing the effect of past LSAPs, I'm not particularly a big fan of event studies. I think the event studies are too focused on the reaction on particular days. The expectation of LSAPs evolves more slowly, and it's very hard to disentangle all the factors that affect financial asset prices. When we say that we're going to do an LSAP, that not only affects people's views of what's going to happen in terms of financial markets, but also signals a view about our view of the economy, and both of those things affect financial asset prices. So trying to disentangle what the effect is of the LSAP from what the effect is of our judgment that we need an LSAP is very difficult to determine.

I also agree with Governor Stein and others that probably one of the more powerful aspects of LSAPs is the confidence channel and the signal that we're willing to do as much as it takes. During the heat of the financial crisis in 2008 and 2009 when we were rolling out all of these special liquidity facilities, I was very impressed by how much our policy actions supported confidence in market function just because we were showing up, just because the fire trucks were rolling. People, as I think Governor Duke noted, don’t necessarily understand exactly why we’re doing what we’re doing, but they feel more confident when they know that we’re acting.

Some around the table have argued that our tools are not very effective and the core problems lie elsewhere—in fiscal, the household balance sheet, housing problems—and so we shouldn’t act because by acting we’re somehow removing responsibility from others where the responsibility more rightly sits, and I think there is some truth to that argument. In an ideal world, other things that are outside our purview would happen that would help the economy. But I don’t think that argument carries the day for arguing against action for two reasons.

First, nothing in our mandate says that if our tools aren’t powerful, don’t use them; defer to others. There’s nothing in our mandate that says that. It just says this is your mandate. Use your tools to try to achieve your mandate the best you can. And second, if we don’t act, it’s not as if that somehow is going to cause others to act. I really don’t accept the premise that somehow our inaction would spur action by others. If you really believe that, then maybe you could actually advance this argument. But I don’t think many people around the table believe that our inaction will somehow spur action by others that will improve the economic outlook.

On the agency MBS, I strongly favor the $40 billion per month over the $30 billion. Being more forceful makes sense. At the end of the day the staff has concluded that we have the room to do $40 billion rather than $30 billion without impairing market function, so I don’t really see the reason for holding back. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Okay. Thank you, and thank you all very much, as always, for your good advice.

Let me make a couple of comments. I think that action is needed. I don’t think we’re being precipitous. We extended the guidance in January. In June, we extended the MEP. Both of those things were viewed essentially as temporizing moves and were discussed in that way around this table. The evidence is that while we are not necessarily facing recession or crisis, it's also true that we seem to have stalled, and that very serious problems with unemployment are not improving. Given our mandate, I think that requires at least a consideration of action.

The action that is proposed here, and it should be very clear, is a cautious action. Governor Duke was very helpful in helping me think about this. What this alternative B actually does is make a down payment of X per month of MBS for the rest of the year, and then three or four job market reports from now we will consider at that point what the job market outlook looks like, and then respond appropriately. So it is, in that respect, emphasizing the conditionality of the program and the fact that we will be looking—in a way that wasn't conveyed adequately by our fixed-size LSAP programs—at what's happening in the data and what's happening in the economy. But I do think there is a basis for expressing our support for the economy at this point, to help support confidence and to help give the economy a bit more strength in case we do face shocks from Europe or from the fiscal cliff.

So, again, obviously I propose alternative B. I'll come back to the body of it in a moment. On 5 versus 5′, there was a pretty clear consensus around the table that there's a lot of hunger for moving away from the date toward some kind of state-contingent guidance. I think one of the lessons of the paper whose author's name will not be mentioned was that clarity about future rate policy is a very powerful tool and one that we should make use of. I would advocate that we continue to work on this because the other part of the consensus today was that we're not quite ready for prime time on this issue. So I would propose for now that we retain paragraph 5, but with a very strong injunction to the staff and to colleagues that we work to figure out how we can put language like 5′ in soon.

In paragraph 3, I'd like to make the following proposal. I'd like to propose that we do $40 billion a month, but I'd like to add the words "through the end of the year" where it says $85 billion a month three lines from the bottom. The $85 billion, which is the MEP plus the $40 billion—of course the MEP runs out at the end of the year, and that's about the time we'll be looking at how we're going to proceed from here. The advantage of doing $40 billion is, first of all, that $30 billion feels a little underwhelming to me in terms of what we announce today, but also it seems to me that one of the options we might have in January, if we are looking at it, would be just to continue the $40 billion. To me, $40 billion seems like a more plausible number there. And we have talked about it with the Desk, and their view is that it's consistent with both our operational capacity and with market functioning even if extended for a long period, longer than I expect that we would actually do it.

In paragraph 4, I would propose—and there were views on different sides here—we use the second language, "undertake additional asset purchases and employ its other policy tools." Governor Duke spoke against this because she mentioned IOER and discount window lending. Of course, those are Board tools, but the other tools that the FOMC has are the statement language and the guidance, and certainly that could be part of additional steps that we take in January or whenever it is that we begin to review the situation. If no one has too strong an objection, I'd like to use that second phrase with the understanding, which I will make clear if asked, that what we mean by that is communication—which is the other topic I talked about in Jackson Hole. I don't want to make any other changes. We do have the phrase "as appropriate." That already conveys the notion of conditionality, the fact that we may or may not take action. It depends on what the economic outlook is, and I think that's very important.

I forgot to say, by the way, on 5—a point that Governor Raskin made—that I think the reason that there has been in the SEP, as well as in the guidance, a fairly sharp movement into the future of the expected takeoff date is not really because there's been a massive deterioration in the outlook, but that the Committee has come to the view that a somewhat more extended period of low rates—for reasons articulated by the artist formerly known as Michael Woodford [laughter]—can be helpful in a zero lower bound situation, and I will try to make that point also in the press conference.

To summarize—and I look around the table, if there are any voters who are extremely bothered, please let me know—I would propose to choose $40 billion and $85 billion from the third line from the bottom, propose to insert the phrase "through the end of the year" after "each month," and then in paragraph 4, I propose to take the second option, "undertake additional asset purchases, and employ its other policy tools as appropriate." Are there any comments? President Fisher.

MR. FISHER. May I just ask a question? When we say "in a context of price stability," we also mean well-anchored inflation expectations, is that correct?

CHAIRMAN BERNANKE. We do. That's the phrase. I recognize it's not completely grammatical as President Lacker pointed out, but the implication is that, of course, at all times we'll maintain that conditionality as we undertake our policy.

MR. FISHER. And you will work that into your press conference if it's appropriate.

CHAIRMAN BERNANKE. Yes, yes. Absolutely.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. In paragraph 4, just a thought to throw on the table, and that is take the last sentence of 5′, inject it after the words “price stability,” so that the effect of the last two sentences would be to frame this whole question of continuing accommodation—in effect, framing the way we’re going to deliberate over this over the next few weeks. It seems to me comprehensive. It refers to improvement in labor market conditions generally, and also of course, efficacy and cost and all of that. I can see combining those two sentences. Each begins, for what it’s worth, with “In determining, …” and that might make that paragraph a good set-up. I’ll also point out that in all likelihood, the minutes are going to portray that we have given some consideration to threshold thinking, and so this would serve to frame that for the market reaction over the next few weeks. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Because it refers to the time horizon, wouldn’t that kind of language be more appropriate as we look toward the language of 5? In other words, I thought for a moment you were suggesting taking that and putting it at the end of 5.

MR. LOCKHART. I’m actually thinking it might fit in 4. I put this on the table a little bit off the top of my head. The Committee will continue its purchases, undertake additional asset purchases, and employ its other tools until such improvement is achieved in the context of price stability. In determining how long we’re going to do that, we’d take into account the pace of labor market conditions and so forth. In determining the size, pace, and composition, as always, we’d take into account efficacy and cost. I just saw that as a boxing of all of the things we would take into consideration if we go to essentially an open-ended kind of approach.

CHAIRMAN BERNANKE. In my press conference I’m going to be very clear that obviously this is not a numeric objective, and we’ll be looking at a range of employment and output indicators, which all bear on the outlook for sustained improvement in labor market conditions and declining unemployment, and I'd rather convey that breadth verbally. I'm afraid we're getting a little complicated.

MR. LOCKHART. Fair enough.

CHAIRMAN BERNANKE. Vice Chairman.

VICE CHAIRMAN DUDLEY. Yes, I had the same reaction that you had. I didn't see how it would fit in 4 because you hadn't really explained the forward guidance yet. One could take the last sentence of 4 and the last sentence of 5′ and make a new paragraph 6 and sum up. Then you'd have the statement about asset purchases, the statement about forward guidance, and a summary paragraph that said, "in determining both these things." That would be more logical.

MR. LACKER. A paragraph full of escape clauses, in other words.

VICE CHAIRMAN DUDLEY. Essentially.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. Yes. I was going to ask a question about something else.

CHAIRMAN BERNANKE. Go ahead.

MR. LACKER. In the forward-guidance language, we deleted the economic conditions clause there. We've had a lot of discussion of Professor Woodford's paper. We've talked a lot about that in the context of 5′ and that language, but I'm thinking that what you had in mind by deleting the economic conditions clause was in part motivated by his critique as well, the idea that by saying it's conditions that are pushing the time horizon out, we were focusing on how bad things are. The intention, as I read you, is for us to be communicating more about our reaction function.

CHAIRMAN BERNANKE. That's right.

MR. LACKER. I want to re-ask a question I asked earlier this year. When we adopted this language, we never really got clear on whether it's a commitment or not. We wrestled with different versions of what that meant. Is this signaling that we're going to pursue an action that later on we would not want to pursue then?

CHAIRMAN BERNANKE. I think it's still conditional because it obviously depends on the timing of the recovery and so on.

MR. LACKER. Right. So it's contingent.

CHAIRMAN BERNANKE. But I mentioned the SEP changes and so on. I think we around this table have moved to the view that communicating low rates for longer in a way that may require some credibility is an approach to dealing with the zero lower bound, not in an extreme way, but I think there is some of that now in the statement.

MR. LACKER. We have a statement, and we can walk away from this and each interpret it in our own way, or we can have a Committee sense of what we're doing. Is policy in the future to be conditioned on this? In other words, as Woodford suggests, is policy going to be history-dependent? Is the fact that we said this going to alter future policy?

CHAIRMAN BERNANKE. In my Jackson Hole remarks, I talked about the guidance. I said it was conditional, dependent on the state of the economy. But in explaining the time, I said we look at rules and optimal control and those sorts of things, but we also take into account some other factors such as downside risks, the effects of the zero lower bound, and implicitly I said the possibility that the equilibrium real rate of interest is lower than normal—that is, headwinds. So I am conveying, I think, some sense that in order to achieve more stimulus today, there's a bit of a commitment element there—I don't think we've gone too far out on a limb on this.

MR. LACKER. Okay.

CHAIRMAN BERNANKE. Okay. Can we go ahead?

MS. DANKER. This vote is on alternative B, as amended by the Chairman, and the associated directive.

Chairman Bernanke	Yes
Vice Chairman Dudley	Yes
Governor Duke	Yes
President Lacker	No
President Lockhart	Yes
President Pianalto	Yes
Governor Powell	Yes
Governor Raskin	Yes
Governor Stein	Yes
Governor Tarullo	Yes
President Williams	Yes
Governor Yellen	Yes

CHAIRMAN BERNANKE. Thank you. We have a few other items. We're going to hear a little bit about the implementation, we're going to do very quickly the forecast, but if everybody is okay, why don't we just go ahead and take a 15 minute coffee break?

[Coffee break]

CHAIRMAN BERNANKE. Okay. Why don't we recommence? Let me turn the floor over to Lorie Logan, who will talk a bit about the operational aspect.

> MS. LOGAN.[8] Thank you, Mr. Chairman. I will offer a brief description of how the Desk plans to implement the Committee's decision regarding the SOMA portfolio. Consistent with recent practices, the Desk intends to release a statement with operational details on this initiative at the same time as the release of the FOMC statement. A draft of the Desk statement is provided in the handout for your reference, with the exception that we will add the clause "through the end of the year" into the second sentence of the second paragraph.
>
> Based on the directive, the Desk intends to expand the SOMA's holdings of agency MBS by $40 billion per month and maintain the existing policy for reinvesting agency principal payments. Our current projections indicate that through the end of the year, paydowns on the agency debt and MBS portfolios will result in average monthly reinvestment purchases of roughly $30 billion. Thus, combined

[8] The materials used by Ms. Logan are appended to this transcript (appendix 8).

purchases will initially total around $70 billion per month and constitute about three-fourths of monthly TBA gross issuance.

Should the purchases extend for 10 months, as was considered in Tealbook B, we anticipate that the SOMA's ownership share of the outstanding fixed-rate agency MBS market would grow from about 18 percent to 27 percent, and that's over a 10-month horizon.

In line with the current practice for reinvestment operations, the Desk plans to conduct the additional purchases in the newly issued securities in the to-be-announced market, or TBA market. These securities represent the most liquid sector of the MBS market, allowing purchases to be made in large size and are most closely tied with the primary mortgage rate. The Desk may purchase other agency MBS if market conditions warrant.

The Desk intends to conduct these additional purchases internally as we've been doing for some time rather than relying on an investment manager to conduct the trades on our behalf. We expect to be active almost every day, and purchase operations will continue to be conducted in a competitive auction format with the primary dealers. Further, the Desk will continue the practice established at the end of last year of margining the unsettled MBS transactions with the primary dealers.

Given the substantial portion of issuance being purchased and the uncertainty associated with MBS supply, the Desk will continue to conduct dollar roll transactions when necessary to facilitate the settlement of our purchases. Dollar rolls can be used to postpone or accelerate the delivery of purchases based on indications of the availability of agency MBS for settlement. In the reinvestment operations to date, the size of dollar rolls needed to postpone settlement have been fairly small, at about 5 percent of purchases, though this amount is likely to increase with the additional asset purchases.

We will also use coupon swaps, if needed, to facilitate settlement, as was the case in 2010. A coupon swap would allow the Desk to exchange unsettled purchases in a given agency MBS coupon for other coupons more readily available for settlement. However, we do not envision needing to conduct such transactions, except in very rare cases where persistent supply problems suggest that settlement of purchases, even over several months, is unlikely.

The purchases of agency MBS securities under this new asset purchase program will begin tomorrow. We plan to have two separate announcements for MBS operations going forward, one for the new purchases and one for the continued reinvestments. The Desk will publish the monthly asset purchase amounts along with the announcement of the Treasury MEP operations around the last business day of each month. Given there are only 17 calendar days remaining in September, we will purchase a pro rata share of the monthly pace in September of about $23 billion.

> In addition, we will continue to publish around the eighth business day of each month the planned amount of reinvestment purchases for the next month. Thus, there will also be a new reinvestment purchase amount target posted today at the same time as the Desk's operating statement is released. That concludes my comments. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Any questions? President Lacker.

MR. LACKER. Help us interpret financial market data going forward. What do you expect? Because our purchases don't include TIPS, should we factor something in about TIPS yields? Are they in the habitat, out of the habitat?

MS. LOGAN. In our MEP purchases, we purchase TIPS today.

MR. LACKER. You do?

MS. LOGAN. Yes.

MR. LACKER. Okay.

MR. POTTER. The MEP is still ongoing.

MR. LACKER. But we weren't proposing to do it in the overall asset purchase program, were we?

VICE CHAIRMAN DUDLEY. Sorry?

MR. LACKER. Include TIPS.

MS. LOGAN. If we had added purchases under a new asset purchase program for Treasuries, we would have done so.

MR. LACKER. Okay. You would. Sorry. I misread something then. I apologize. Let me ask another question. How linked is the private-label MBS market to agency MBS yields? Do you anticipate this pushing that spread apart?

MS. LOGAN. I think the way we've been estimating these effects is that the MBS purchases would affect the Treasury term premium, and to the extent that the pass-through from the lowering of interest rates moves other asset markets, equities, or the private-label market—

we talked about what that pass-through is. There's some uncertainty, but we would expect the channel to be through that form. I guess there could be some other form because it is MBS, and private label is a little bit more closely connected than maybe from Treasuries to private label, but overall we have been expecting the pass-through to happen through lowering interest rates more broadly.

MR. LACKER. All right. Relative to buying Treasuries, we're tilting credit from the private-label market to the agency market. Thanks.

CHAIRMAN BERNANKE. Governor Duke.

MS. DUKE. I'd just like to say something about the private label because there has been almost no issuance of private label in a number of years because there's just not much supply out there. There is a little bit of jumbo issuance. Again, in the spirit of things that are cooking out there, the Federal Home Loan Banks, particularly I think the Home Loan Bank of Chicago is now looking at consolidating jumbo securities from banks across the country, not just that are in the Chicago district, and feeding them through Redwood to try to generate some more broader private-label issuance, for jumbo and more broadly. I would expect that to the extent that that happens, it certainly wouldn't be unhelpful. It might be helpful.

MR. LACKER. Well, but what they're saying is that compared with buying Treasuries only, this is reducing agency MBS yields by more—Treasury yields will fall, but not as much as what they would fall if we bought Treasuries only. They're tilting the playing field away from everything priced on Treasuries toward agency MBS.

MR. POTTER. President Lacker, we're still buying $45 billion of long-term Treasuries in the MEP right now.

MR. LACKER. Yes, I know that, but the apples-to-apples thing is $40 billion agency MBS versus $40 billion Treasuries in this setting, and comparing those two, private-label MBS yields are going to be higher, given that we're buying agency MBS, than they would be if we were buying Treasuries only.

VICE CHAIRMAN DUDLEY. They're not going to be higher. They're not going to drop as much, presumably.

MR. LACKER. Exactly. They're going to be higher than they would in the alternative.

CHAIRMAN BERNANKE. In that respect we don't care because they're not being created.

MR. LACKER. Well, they would be even less created now.

MR. ENGLISH. I don't actually think we know very much about what would happen to private-label MBS yields because there's so little issuance; there's so little pricing information. It's conceivable that pushing down agency MBS would also push down private-label MBS yields, but I don't think we know because there hasn't been much issuance there and we don't have information.

MR. POTTER. The stronger the housing market is, the more it should support the private-label market coming back and having more capacity.

CHAIRMAN BERNANKE.[9] Let's go on to the consensus forecast. This, of course, is still an exercise. We're still working to figure out what we're going to do. You have in front of you the consensus forecast. If you turn to page 3, and we look at the forecast inclusive of the policy action today, that would be best approximated, I guess, by the line that says, "Plus $750 billion LSAP program." That's the post-action policy forecast, and note that it includes the jointly determined federal funds rate at the bottom. What I'd like to do is ask each person to say

[9] The materials used by Chairman Bernanke are appended to this transcript (appendix 6).

one of three things. Either you broadly agree with the forecast as given or you agree with reservations—let me go back a second. As part of our exercise the staff, I believe, is intending to write up our discussion as if it were a quarterly monetary policy report, and what they will do is if you agree but with reservations, they will write up your reservations in minutes style describing without attribution what the concerns were that people raised about the forecast. The other possibility is if you just disagree with the forecast, you should say so and explain why, and then they'll write up the monetary policy report with attribution—that's the plan—and say, again, what it is that you disagree about. Yes, President Lacker.

MR. LACKER. I don't understand. Are these two different plans or are these two different options for us?

MR. ENGLISH. Two different options.

CHAIRMAN BERNANKE. You have three choices. When I go around the table, you have three choices.

MR. LACKER. Right. We can disagree anonymously or with attribution?

CHAIRMAN BERNANKE. You can disagree modestly and anonymously.

MR. LACKER. Modestly and anonymously.

CHAIRMAN BERNANKE. You can disagree violently and for attribution. [Laughter]

MR. LACKER. And there's a threshold. [Laughter] Or is it a trigger?

MR. REIFSCHNEIDER. Can I bring up just one more thing?

CHAIRMAN BERNANKE. Yes.

MR. REIFSCHNEIDER. For those people who strongly disagree, we're also asking them to submit in the next few days—by Monday—a paragraph or so explaining why, and we will eventually put this into a document and then circulate it back to the Committee.

CHAIRMAN BERNANKE. Is everybody okay?

MS. DUKE. Can I just ask one question about agreeing with reservation? If we're comparing it with the $750 billion LSAP program, and in voting for alternative B, I didn't assume that the purchases went past the end of the year, would that be a reservation? I just want to know how to characterize it. What does "with reservation" mean?

CHAIRMAN BERNANKE. I think you assume that you should take the Tealbook assumption here, the $750 billion, and say: Would the economic path shown here be a reasonable approximation of what you would anticipate, given the policy action taken? And if not, why not?

MS. DUKE. Okay.

CHAIRMAN BERNANKE. Okay? President Bullard.

MR. BULLARD. Am I agreeing that this is a consensus forecast or am I agreeing that this is actually my forecast? Because I submitted my forecast. And you can see point for point, you know, where they're different and where they're not.

CHAIRMAN BERNANKE. We're trying to determine if it is a consensus, and therefore, we're asking if you yourself find it—

MR. EVANS. Is it close enough?

MR. BULLARD. I think it's a good consensus. It's not as accurate as—

MR. FISHER. I'm trying to remember my specific numbers. All I remember is that I was in the central tendency.

CHAIRMAN BERNANKE. So why don't you just report what you reported and say if you think it's broadly consistent with this or not?

MR. WILCOX. This is an effort to ascertain the extent to which participants can affiliate themselves with the consensus forecast.

CHAIRMAN BERNANKE. President Fisher.

MR. TARULLO. Mr. Chairman.

CHAIRMAN BERNANKE. Sorry.

MR. TARULLO. I think it's not unlike what we do with policy statements, which is to say everybody would have written it somewhat differently, but in the end can you kind of go along with it?

CHAIRMAN BERNANKE. Yes, that's what it is. That's right.

MR. FISHER. You said there were three questions. Do we agree with the forecast? Do we have reservations? If so, what are they? What's the third?

MS. DUKE. Do you disagree?

MS. YELLEN. Do you have a fundamentally different view?

CHAIRMAN BERNANKE. Do you fundamentally disagree with the forecast? And remember it's not about whether you agree with the policy action or not. This is conditional on the policy action. Conditional on the policy action, do you agree more or less with the forecast that's been presented?

MR. FISHER. And if we have reservations, we should submit them. Is that what you were saying earlier?

CHAIRMAN BERNANKE. Well, Janet, would you like to comment?

MS. YELLEN. If you broadly agree but have some reservation—you're slightly more optimistic about the forecast, you have a different view on oil prices, but aside from that you basically agree this is a reasonable forecast contingent on the policy path—then say you agree with reservations. And the write-up, as in the minutes, will say people have expressed some reservations, but nevertheless associate themselves overall with the view. The staff will write up the discussion of what the reservations were. But those who just have a basically different view of the forecast should say so, and then there will be a few paragraphs they'll submit, and that will be included in the document with attribution. This would be a portion of a monetary policy report where there would be a discussion of the diversity of views. Think of this as a diversity of views and say 10 people supported the forecast without reservation. Several people had reservations of the following sort, and four had essentially different views. Here are the submissions. In your paragraph, you'd describe and explain why your views are essentially different.

CHAIRMAN BERNANKE. Let me just make sure I understand. We're assuming the policy path, this policy action?

MS. YELLEN. Yes.

MR. REIFSCHNEIDER. Yes, that's what we are doing today.

CHAIRMAN BERNANKE. Right. So we're not having individual "appropriate monetary policy."

MR. REIFSCHNEIDER. No. It's just given what we passed today, is this a reasonable forecast?

MR. LACKER. Wait. That's different than a policy path.

MR. REIFSCHNEIDER. I'm going to suggest something slightly different from what Chairman Bernanke said, which is: Given the policy decision today, if you look at the numbers that go along with that $750 billion LSAP program—forget about whether the $750 billion is correct or not because you may think it will end up being $500 billion or some other number—

do you think that's a reasonable forecast? Is it close enough for talking purposes? But if you think this is the wrong model of the world, the economy is just going to look a lot different, so much so that you want to, in effect, dissent, then you're in the third category. The middle category is a little tougher, but I think the two ends are very clear.

CHAIRMAN BERNANKE. Everybody, this is a trial run. [Laughter] We're trying to find out what works and what doesn't work. We may have already found out what doesn't work. President Fisher, did you have a comment or question or you're okay?

MR. FISHER. I'm fine.

CHAIRMAN BERNANKE. You're fine. Vice Chairman.

VICE CHAIRMAN DUDLEY. My question was would it be better to try to have a little bit better understanding about what "close to" is or would it be everyone's personal view of what "close to" is?

CHAIRMAN BERNANKE. It's your judgment of whether you sufficiently disagree that you want to have your name identified.

VICE CHAIRMAN DUDLEY. But it does matter if people disagree or have different parameters in terms of how close is "close to." We can do it either way, but you could argue that if you think the standard error is more than X, then you should disagree, or you could be a perfectionist and you disagree for very minute changes.

CHAIRMAN BERNANKE. So all of this is about reporting. We're trying to report the sense of the Committee, and so how you would like the sense of the Committee reported is basically the question.

MS. YELLEN. Right. If we were really doing this, the Chairman would be walking out into a press conference with these numbers, explaining the policy action, and putting these numbers out to the public and saying, "This gives you a description of how we envision the economy unfolding with the policy decisions." And the question is: Would you be comfortable with these numbers as what he walks out into a press conference with?

VICE CHAIRMAN DUDLEY. I understand all of that, but let's imagine that there's half the people on the Committee who disagree for very small tolerances and half the people have very large tolerances.

CHAIRMAN BERNANKE. Then no. It should be meaningful tolerances.

VICE CHAIRMAN DUDLEY. It would be better if we had a more common metric about what the tolerances are.

MR. LACKER. Well, put it this way: Are you willing to write two paragraphs for Dave Reifschneider? [Laughter] That's it, right?

VICE CHAIRMAN DUDLEY. No, no, that's different. That's a fundamental disagreement.

MR. REIFSCHNEIDER. The way I would put it is this. If the consensus forecast came out like this, and you were the sort of person who in a speech would say, "I want to make an important point that my personal unemployment rate forecast at the end of 2015 would be one-tenth lower," then you should say you have reservations. [Laughter] But if you perhaps feel uncomfortable about making a big distinction about one-tenth or so, then—

VICE CHAIRMAN DUDLEY. There's a standard error, though, implicit in that.

MR. REIFSCHNEIDER. I think there are two things. One, there's obviously a huge confidence interval around this, and so one way to look at it is that many differences just blur.

CHAIRMAN BERNANKE. Of course. There will always be fan charts.

MR. REIFSCHNEIDER. But does it make it a material difference for monetary policy, and the question might be if it's one-tenth or so off on inflation or unemployment, you would say probably not.

VICE CHAIRMAN DUDLEY. That's a good way of phrasing it.

CHAIRMAN BERNANKE. President Evans, did you have a comment?

MR. EVANS. I was just thinking we should probably start [laughter], and then we'll figure out—

CHAIRMAN BERNANKE. Excellent suggestion. All right. Who would like to go first? President Lockhart.

MR. LOCKHART. I endorse it. [Laughter and applause]

CHAIRMAN BERNANKE. Very good. Anyone? President Bullard.

MR. BULLARD. Is it a good consensus? I do think it's a good consensus. There are issues here about the mix between the forecast and the policy assumptions. The way I did it was I had more inflation coming in the out years, and then I applied the outcome-based policy rule, which would then have the funds rate moving in a different way from here, and so the policy assumption then starts to also look different. So I'm not quite sure what to make of this exercise. It's fine as a statement of where the Committee is, and I would endorse it in that sense. As a general rule on this whole process, I don't think that it's a good thing to get into the business of trying to dissent on a forecast because there are zillions of points here and a lot of subtleties here.

CHAIRMAN BERNANKE. This is why we're having a trial run.

MR. BULLARD. Mildly different, I guess.

CHAIRMAN BERNANKE. Governor Powell.

MR. POWELL. Broadly endorse.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. Conditional on the policy path, I broadly endorse.

CHAIRMAN BERNANKE. Okay. Governor Duke.

MS. DUKE. I actually normally would endorse, except that the reservation I would express at this point is that I think 2013 will be significantly lower because of the fiscal cliff.

CHAIRMAN BERNANKE. Okay.

MS. DUKE. That would be a reservation.

CHAIRMAN BERNANKE. That's a good example of a reservation. Very good. Anyone else? President Williams.

MR. WILLIAMS. Broadly endorse, but I have a weaker outlook. So that's my only reservation.

CHAIRMAN BERNANKE. Governor Yellen.

MS. YELLEN. Broadly endorse.

CHAIRMAN BERNANKE. President Kocherlakota.

MR. KOCHERLAKOTA. I see what I would term modestly more inflationary pressures than what are in this forecast, maybe one-tenth or two-tenths or three-tenths more in inflation. With that said, it comes back to what the Vice Chairman was talking about, that the choices of the Committee seem to be averse to those kinds of upticks in inflation. For my own view, I think I would say I see modestly more inflationary pressures than what are in this.

CHAIRMAN BERNANKE. Fine. Governor Stein.

MR. STEIN. I broadly endorse the baseline. I'm not sure if I would be a weak deviator on the conditional effect of policy in the sense that I think that the incremental effect of the

LSAP is going to be roughly half of what it's projected to be. I'm not quite sure where that puts me.

MR. REIFSCHNEIDER. You sound like a "two" to me.

MR. STEIN. That feels like a "two" to you?

PARTICIPANT. Do you want to write two paragraphs?

MR. STEIN. No, I don't want to write any paragraphs. I want to hide in the weeds. [Laughter]

CHAIRMAN BERNANKE. President Rosengren said he broadly endorses. President Fisher.

MR. FISHER. I modestly endorse it. It might scare people in terms of my forecasting. I was within the central tendency. They might want to change their forecast based on where I would be, with the exception of the funds rate, and I'd have to think about that. But generally, I endorse. I will say this, Mr. Chairman: Fiscal cliff, no fiscal cliff, et cetera—and I said this in my write-up—going beyond the first part of 2013 is largely pure guesswork.

CHAIRMAN BERNANKE. In some positive sense, that's true. In a normative sense, we do need to find some kind of plan.

MR. FISHER. I understand that.

CHAIRMAN BERNANKE. We have to have some kind of projection to base our thinking on.

MR. FISHER. With that caveat, it's a wonderful exercise.

CHAIRMAN BERNANKE. Obviously, yes. One of the benefits of this exercise, I hope, is that we will be able to show fan charts that will give some sense of the uncertainty. President Pianalto.

MS. PIANALTO. I broadly endorse the forecast, although my forecast is slightly weaker for GDP growth and unemployment in the later years partly because, like Governor Stein, the effectiveness of policy is just a little weaker in my forecast.

CHAIRMAN BERNANKE. Good. Governor Tarullo.

MR. TARULLO. I broadly endorse, but two things about the process as opposed to the substance. One, the issue that arose at the outset that Betsy mentioned is something that people are going to have to think about, which is, what if we emerge from a meeting with a policy action that really isn't any of the ones that are listed there? And, secondly, this category two—I have a feeling—is going to be problematic in the following respect. I have heard several people already who might have fit themselves into category two, and if you end up saying, "We've got a consensus forecast—14 of the 17 members of the FOMC had qualifications on it," I'm not sure how powerful it becomes.

CHAIRMAN BERNANKE. Well, the interesting question is whether or not a number of them had the same qualification. If they're all nitpicks, that's one thing, but if everybody said, "This doesn't take enough account of the fiscal cliff," then that would be something that should be communicated I think.

MR. TARULLO. Fair enough. There may be some utility in thinking about moving to a binary system as we do with the statement. You are either endorsing or you are not, but giving people a chance to comment, so if they say something like Betsy said a minute ago, it could be included in the explanation of the consensus.

CHAIRMAN BERNANKE. That's fine.

MR. TARULLO. But that's just something to think about.

CHAIRMAN BERNANKE. No. Thank you. We are looking for suggestions. Anyone else? Vice Chairman.

VICE CHAIRMAN DUDLEY. I agree with Governor Tarullo. You don't have to frame it as a reservation. You can just frame it as where people would prefer to tilt the forecast. I'm with Betsy on the fiscal restraint. I am assuming that we will get some fiscal restraint next year, and it will be more problematic to the outlook, so we have somewhat weaker growth in 2013. That said, I think this is a pretty good forecast. That is why I was getting at the point of, how much do you disagree? I am pretty confident that the economy will be weaker in 2013 than this forecast, but if I take this whole thing in its entirety, I wouldn't really quibble about it.

CHAIRMAN BERNANKE. Okay.

VICE CHAIRMAN DUDLEY. I have a tiny reservation.

CHAIRMAN BERNANKE. Again, the question is, would you object to my hypothetically taking this, putting this on the screen, and saying, "This is the Committee's consensus forecast of what the economy is going to look like"?

VICE CHAIRMAN DUDLEY. But it would also be good, though, to say, "A few people thought that 2013 could be a little weaker because" blah, blah, blah. But I would do it in Governor Tarullo's two-bucket camp rather than three-bucket camp.

CHAIRMAN BERNANKE. I agree.

CHAIRMAN BERNANKE. Okay. Thanks. Anyone else?

MR. PLOSSER. Mr. Chairman?

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. I would say my forecast differs from this, obviously, and I think it is likely to show up in the assumption about current policy. We are going to see more inflationary pressures and less positive outlooks on output and employment.

CHAIRMAN BERNANKE. Okay.

MR. LACKER. I still don't have a clear, coherent sense of what policy I am supposed to be conditioning on. Am I forecasting the Committee? I think I am. So on that basis, I might provide a good test case here.

CHAIRMAN BERNANKE. Okay.

MR. LACKER. First of all, coming into this, on appropriate policy, I was weaker in 2013 by a couple of tenths. And I saw inflation a couple of tenths stronger, closer to 2 percent over the next year or two, getting to 2 percent next year. So I would have put policy to raise rates earlier. Modifying that in terms of making it a forecast of the Committee's action, I would mark up inflation in 2014.

CHAIRMAN BERNANKE. Sounds right. Anyone else?

MR. FISHER. Can I ask a question on that?

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Forgive me. I'm slower than everybody else at the table. In releasing this, we would be releasing the funds path?

CHAIRMAN BERNANKE. Releasing what?

MR. FISHER. The funds path, the fed funds rate forecast as well.

CHAIRMAN BERNANKE. Yes.

MR. BULLARD. If you are a year earlier, is that a significant reservation? [Laughter]

CHAIRMAN BERNANKE. I'm sorry.

MR. BULLARD. A year earlier on the funds rate, is that a significant reservation?

MS. DUKE. But is that a difference in the policy path? Because the policy path assumes 2015 liftoff.

VICE CHAIRMAN DUDLEY. You could have a different reaction function.

MR. BULLARD. But then you've got to do your presumably outcome-based—

MR. REIFSCHNEIDER. Based on the original line of comments where we asked you to condition on the forecast, and you submitted something that had higher inflation, I would have said that you were a "three" because you showed that, conditioned on sticking with the August statement-type policy, you had much higher inflation than this forecast, and that should be exaggerated more based on the policy. So I would have said that you're a three.

MR. BULLARD. But I don't think I am outside of these confidence bands.

MR. REIFSCHNEIDER. I don't think that is relevant. It goes back to the question of, do you think that your forecast, from a policy perspective, would be materially different?

MR. BULLARD. Again, I just don't think getting into dissenting on a forecast is a sensible thing to do. Has the Chairman done a good job of characterizing the center of the Committee? Yes. I think yes.

CHAIRMAN BERNANKE. Okay. President Lockhart.

MR. LOCKHART. I want to make sure I understand. The next step is to write up a mock quarterly monetary policy report or something like that?

CHAIRMAN BERNANKE. Right. I'm sorry. Just a description of this discussion.

MR. LOCKHART. Right. But we see how it is going to be communicated, how it is going to be implemented, is that right?

CHAIRMAN BERNANKE. Yes. That's the purpose.

MR. WILCOX. Just the diversity of views portion.

CHAIRMAN BERNANKE. Right. Okay.

MS. DUKE. For the mock exercise, in addition to my own fiscal cliff reservation, can I sign up to Sandy and Jeremy's reservation about the effectiveness?

MR. REIFSCHNEIDER. Oh, sure.

MS. DUKE. Okay.

CHAIRMAN BERNANKE. Anyone else? [No response] All right. Yes?

MR. POWELL. I'm on that line between the one and the two for exactly the same reason. I went with the one, but of course I do have the same reservation.

CHAIRMAN BERNANKE. A question to be thinking about here is: What would Governor Powell do if he thought that the policy action is weaker than we anticipate, but the underlying economy is stronger, so that the outlook looks okay for him?

MR. POWELL. Right.

CHAIRMAN BERNANKE. Because we are not showing a comparison, right? We are just showing the ex post.

MR.STEIN. Oh, you're just showing the ex post.

CHAIRMAN BERNANKE. Well, that's the question. That's what we're discussing here. We haven't asked the question whether or not you think the baseline is adequate.

MR. FISHER. You might have to prepare for your press conference.

CHAIRMAN BERNANKE. Yes. Do you have a question or a comment?

MR. FISHER. Well, the plan is, once we get this nailed down, that you would then refer to it in your press conference. Is that correct?

CHAIRMAN BERNANKE. And then, we are hoping at some point to have a monetary policy report.

MR. FISHER. Which you would still refer to the consensus forecast in.

CHAIRMAN BERNANKE. Nothing is nailed down. One possibility, which Governor Tarullo alluded to, is that we can't do this in a timely way because we don't know what the policy action is going to be soon enough, in which case it might be something that only appears in publication with the minutes, for example, three weeks later.

MR. FISHER. I agree with Governor Tarullo, by the way. He makes an excellent point. My next question would be: Could you summarize what we just discussed as though we were at a press conference? It probably would be difficult at this juncture.

CHAIRMAN BERNANKE. I would say that this is the forecast of the Committee. A few people disagreed, thinking that these policies would lead to higher inflation. Most people agreed with the broad contours, except they pointed out a few issues related to the fiscal cliff and the efficacy of policy. President Lacker.

MR. LACKER. I'm a little confused. Someone used the phrase "a diversity section." But you, at the beginning, described—I think you did in this context—a minutes-like document, and in the minutes, of course, when they discuss participants' views, the different views are sort of woven into the main narrative. I wasn't quite clear on what you guys—

CHAIRMAN BERNANKE. I just learned about this five minutes ago myself.

MR. LACKER. Okay. Great.

CHAIRMAN BERNANKE. But I think the plan is to have a document that describes the consensus forecast, gives its main feature, and shows it in a minutes-type discussion: "The Committee discussed it. Most agreed with it but raised the following points anonymously.

President Lacker thought that it was a bunch of garbage." [Laughter] And that would be the content.

MR. LACKER. Okay, we will just have to start.

CHAIRMAN BERNANKE. Okay. I hope this was helpful to you all. [Laughter] Just so you have something to look forward to, our current plan is to talk about this exercise in October, so be sure and make your plane reservations now. [Laughter] The next meeting is Tuesday–Wednesday, October 23–24. The press conference is at 2:15. There will be a TV in the Special Library, and lunch is available if you would like to stay. No presentations are planned. Thank you very much.

END OF MEETING

August 28, 2012

Options for an Additional LSAP Program[1]

Introduction

This memo reviews options for an additional Large-Scale Asset Purchase (LSAP) program should the Committee wish to ease financial conditions further. All options discussed in this note assume that such a program would replace the maturity extension program (MEP) and that the FOMC would direct the Desk to resume the reinvestment of maturing Treasury proceeds. We present four options, each of which involves an LSAP program that would allocate 60 percent of purchases to Treasury securities and 40 percent to agency mortgage-backed securities (MBS).[2] This allocation is roughly similar to the ratio of estimated purchasable capacity for the two security types described in the memo entitled "Market Functioning and Limits on Asset Purchases" provided to the Committee ahead of its last meeting. The first option considers $1 trillion in purchases over approximately 13 months and an initial increase in the target federal funds rate in June 2015. The second option is the same but with an earlier liftoff date of December 2014.[3] The third option reduces the program size to $750 billion over about 10 months. The fourth option implies a notably larger program of $2 trillion and serves as a proxy for a longer, flow-based program in a scenario in which the economy proves to be weaker than currently projected.

The analysis below suggests that these LSAPs would boost aggregate demand and hasten progress toward the FOMC's objectives. These programs would also lead to a significant increase in the size of the Federal Reserve's balance sheet and a higher level of reserves at liftoff. Federal Reserve income would be boosted in the near term as a result of the larger portfolio, but income would fall once exit starts due to higher interest expense on reserve balances and larger capital losses as MBS are sold. Cumulative remittances to the Treasury through 2020 would be roughly equal in all four scenarios and modestly lower than those from the July Tealbook Alternative B projection. Under the $2 trillion scenario, however, the balance sheet takes much longer to normalize, and when measured through 2025, cumulative remittances are somewhat lower than for the other scenarios. Because remittances are very close to zero for a few years in options 1 and 2, a small deferred asset may be created. A substantially larger deferred asset is projected under the $2 trillion program, and it is projected to last for a number of years. The baseline interest rate path is subject to uncertainty; to illustrate this point, we present results for two of the options under a higher interest rate scenario.

The next section discusses the allocation of purchases between Treasury securities and MBS. Then, we detail the four options considered in this memo and discuss the financial market and macroeconomic effects. We then review the balance sheet and income projections associated with these options, and close with a summary.

[1] Prepared by staff of the Board of Governors (Michelle Bowbeer, Seth Carpenter, Jane Ihrig, and Beth Klee) and the Federal Reserve Bank of New York (Meryam Bukhari, Alyssa Cambron, Michelle Ezer, Katherine Femia, Joshua Frost, Kunal Gooriah, Winston Liu, Jeffrey Moore, Nathaniel Wuerffel)

[2] Other allocations that ranged from as little as 25 percent in MBS to as much as 60 percent in MBS were also considered, but did not lead to materially different financial market or macroeconomic effects. These scenario results are reviewed in the Appendix.

[3] This is the same liftoff date as that embedded in the July Tealbook Alternative B projection.

Asset Allocation Choice

Should the Committee opt to implement a new LSAP program, it would need to decide on the allocation between Treasury securities and MBS and the distribution of maturities of Treasury securities purchased. Several factors would presumably bear on this decision, including the expected macroeconomic effects, the expected effects on the evolution of the Federal Reserve's balance sheet and income, the Committee's preferences about the composition of the balance sheet, and considerations about market functioning in the two markets. Any model simulations will rely on assumptions, and those assumptions are subject to debate. For clarity, we lay out the assumptions in the simulations so that the effects of different beliefs or assumptions can be understood. The staff models the macroeconomic effect of LSAPs in a number of steps.[4] First, we model the effects of LSAPs on a set of market interest rates. To quantify the interest rate effects, we use Li and Wei's (2012) term premium model, which provides an estimate of the impact of an LSAP on the 10-year Treasury yield.[5] That model assumes that purchases of Treasury securities can be summarized by the amount of duration risk that is removed from private hands, and therefore specifies the "Treasury supply factor" in terms of ten-year equivalents. For MBS purchases, the model considers the par amount purchased and the average duration of MBS separately, in part because the duration of MBS changes noticeably with different levels of interest rates due to the embedded prepayment risks. The estimates from this model suggest that purchases of MBS have about three-quarters of the impact on the ten-year Treasury term premium than would purchases of Treasury securities that have an average duration of nine years.[6] Later in this memo, we discuss several caveats in interpreting these estimates.

We assume for simplicity that the changes in Treasury and MBS rates spillover to other financial markets according to standard assumptions built into FRB/US. In particular, declines in the ten-year Treasury yield are assumed to pass through directly to a lower primary mortgage rate. The current coupon on MBS declines by a similar amount. Changes in the ten-year Treasury yield are also assumed to be passed through to corporate bond rates on a roughly one-for-one basis.[7]

[4] A more complete explanation of the model was previously presented in "Possible MBS Large-Scale Asset Purchase Program," memo by Staff of the Federal Reserve Bank of New York and the Board of Governors, January 18, 2012.

[5] The staff model relies on "Term Structure Modeling with Supply Factors and the Federal Reserve's Large Scale Asset Purchase Programs" by Canlin Li and Min Wei, Finance and Economics Discussion Series paper 2012-37, Federal Reserve Board, July 2012. The effect of LSAPs implied by this model are fairly representative of those found in other studies: For example, D'Amico, English, Lopez-Salido, and Nelson (2011) report effects from LSAP2 on Treasury yields that are somewhat larger than implied by the model of Li and Wei (2012), while Swanson (2011) finds effects that are somewhat smaller.

[6] The LSAP options considered in this memo are assumed to have an average duration of nine years, which matches the net effect of the purchases and sales conducted under the maturity extension program.

[7] The pass-through of Treasury rates to investment-grade corporate bond rates could be greater than 100 percent if the operation eases the pricing of default risk (as in the case in FRB/US). This easing may occur due to a reduction in market participants' expectation of future defaults, perceived default tail risk, and/or risk aversion, and is especially likely to occur if the operation is surprisingly large in magnitude or scope relative to market participants' perception of the headwinds to economic growth. Conversely, in practice the pass-through could be less than 100 percent (and even less than 0) if market participants perceive that the operation is being undertaken because the prospects for economic growth are weaker than they had previously thought, and the operation is perceived as insufficient to offset those economic headwinds. Pass-through could also be limited if high-grade corporate bonds are not viewed as close substitutes for Treasury securities, an implicit assumption embedded in FRB/US.

In addition, the lower Treasury rate reduces the discount factor in pricing equities, boosting stock prices. The foreign exchange value of the dollar falls as well. For LSAPs that include purchases of MBS, there is an additional effect assumed, wherein for every $100 billion of MBS purchased, the spread between the MBS current coupon yield and the 10-year Treasury rate narrows about 2½ basis points and the primary mortgage rate declines by about two-thirds of this additional effect.[8,9]

Finally, the FRB/US model is used to simulate the macroeconomic effects of these changes in financial market variables.[10] Table 1 summarizes the effects of $500 billion in purchases of Treasury securities with an average duration of about nine years compared to those arising from $500 billion in purchases of MBS. The term premium effect of purchases of Treasury securities is estimated to be 21 basis points, while the MBS purchases have an effect of 16 basis points. Purchases of MBS deliver the additional effect of a narrowing of the MBS basis; as a result, the decline in the MBS current coupon rate is 29 basis points and the decline in the primary mortgage rate is 24 basis points. For the unemployment rate after two years, the Treasury purchases result in a 20 basis-point decline, compared to 16 basis points for MBS purchases. Inflation would be boosted by 13 and 10 basis points, under the Treasury and MBS purchases, respectively. As the table highlights, the differences are rather small when translated into macroeconomic outcomes. In particular, although purchasing MBS reduces mortgage rates by more than purchases of Treasury securities, the resulting economic effect is small because residential investment is currently a small portion of GDP.[11]

Several caveats apply to these assumptions and they are all subject to significant uncertainty. Also of note is that the estimated effects are not linear in the size of the LSAP program. The path of the balance sheet, which determines the term premium effect, evolves through time in response to a variety of factors, and there is endogenous monetary policy in the FRB/US model. For example, a very powerful LSAP program would push the unemployment rate to its natural rate more quickly than a weaker program. In reaction to this improvement in the economic outlook, in the model, conventional monetary policy begins to tighten endogenously relative to a scenario without the LSAPs starting in 2016, muting some of the effect of the purchases.

[8] See “Estimates of the Effects of MBS Purchases on MBS-Treasury Spreads” by Matthew Raskin (MarketSOURCE, January 17, 2012) for more details. To estimate the path of this effect we assume the peak effect occurs in the same quarter as the peak term premium effect implied by the term structure model. In addition, we assume the effect diminishes over time by the same proportion as the term premium effect implied by the term structure model. Other work addressing this issue includes “Models Suggest MBS Rate Pass-through is Relatively High and Stable” by Kris Dawsey and Linsey Molloy (MarketSOURCE, March 1, 2012).

[9] In Hancock and Passmore's paper, they focus on the portfolio rebalancing effects of MBS LSAPs in the mortgage market. They find that the pass-through from the MBS current coupon rate to the primary mortgage rate is generally less than one for one, and moreover, their estimated effect on the MBS basis is also more uncertain and probably differs somewhat from that assumed here. Overall, however, the changes in mortgage rates they estimate for the quantities of LSAPs under discussion are of roughly the same magnitude. See Diana Hancock and Wayne Passmore, "The Federal Reserve's Portfolio and its Effects on Mortgage Markets," Finance and Economics Discussion Series working paper, June 2012.

[10] Conditional on the decline in term premiums associated with any LSAP program, alternative macroeconomic models would imply different effects on economic activity. For example, studies by Macroeconomic Advisers (2011), Fuhrer and Olivei (2011), Chen, Curdia, and Ferrero (2011), and Kiley (2012) imply less stimulus to economic activity than in FRB/US from the declines in long-term interest rates that would accompany further LSAPs, while Baumeister and Benati (2010), for example, imply a more substantial impetus to activity.

[11] The impact of home prices on consumption is discussed later in this memo.

In addition, we assume that Treasury securities with an average duration of about nine years are purchased. This assumption is consistent with the view that taking more duration risk out of the market will result in a larger interest rate effect, and so choosing a relatively long average duration is more powerful. Moreover, this average duration is very similar to the purchases conducted under the MEP, suggesting that the distribution can be used in practice. Changing the assumed duration of Treasury security purchases would alter the effects associated with purchases. Reducing the average duration could increase capacity, but doing so would damp the estimated macroeconomic effects somewhat. That said, the models essentially assume that the only direct effect of a Treasury LSAP program comes through the removal of duration risk; other mechanisms could be at play. In particular, this specification may not fully capture a portfolio-rebalancing channel of LSAPs.

We also assume that the proposed MBS purchases do not affect the average duration of MBS in private hands, and that other risks associated with privately held MBS, such as prepayment risk, do not have direct macroeconomic effects. Should these assumptions fail to hold, the true term premium effect may be larger or smaller than those reported above.[12] For example, substantial purchases of newly issued securities with higher estimated durations than existing MBS would cause the duration of privately held MBS to decline. Moreover, private investors often hedge the prepayment risks associated with MBS, while the SOMA does not. The reduced need for such hedging would, all else equal, reduce implied volatility, an effect not completely modeled in staff estimates.

Our assumption of a one-for-one pass through from the ten-year Treasury yield to mortgage rates could misstate the connection of the two rates, and indeed the spread between Treasury yields and MBS yields is now wide by historical standards. Although the models allow for purchases of MBS to narrow the spread between Treasury yields and MBS yields, it is also possible that purchases of Treasury securities could widen the spread – something our models do not assume. The effect on primary mortgage rates from changes in the ten-year Treasury yield is also uncertain, especially in the short run when capacity restrictions may prevent mortgage rates from fully adjusting. As an example, around the time of the announcement of the MEP, Treasury yields and agency MBS yields moved down in tandem, while rates on thirty-year conforming mortgages fell by somewhat less.

Another source of uncertainty concerns assumed spillover effects on corporate bond yields, equity prices, and the foreign exchange value of the dollar along with the response of real activity and inflation to these changes in financial conditions. Some other asset valuation models used by the staff, for example, would predict smaller spillovers. Moreover, the headwinds facing the economy may have reduced the sensitivity of aggregate spending to improvements in financial conditions.[13] For example, if the cost-of-capital channel is currently smaller than estimated in the model, the macroeconomic impact of an LSAP program would be smaller. In that case, while the general cost-benefit analysis of additional LSAPs might change, it is not clear that the optimal allocation of purchases across Treasury securities and MBS would change. On the other hand, the specification of the FRB/US model does not allow reductions in interest

[12] The assumed narrowing of the MBS basis, however, might capture at least some of these possible effects.
[13] Modest evidence for such attenuation was reported in Hess Chung, Geng Li, Ralf Meisenzahl, and Jeremy Rudd, "Are the Real Effects of Monetary Policy Currently Smaller than Usual?" memorandum distributed to the Committee on April 6, 2012.

rates to boost home prices. If such a boost were substantial, it could lead to a wealth effect on consumption spending, implying that the current estimates would understate the efficacy of purchases of MBS compared to Treasury securities.

Overall, staff models do not provide a great deal of guidance as to the optimal allocation across asset classes of an LSAP program. Other considerations, therefore, may be relevant. For example, there could be a concern that large purchases of Treasury securities might be interpreted as monetizing the federal debt. In addition, an LSAP program concentrated in Treasury securities would reduce the supply of Treasury securities at a time when the demand for safe and liquid assets may be high because of factors such as regulatory reform, possibly increasing market functioning risks. On the other hand, higher MBS allocations would result in greater realized losses as those securities are sold under the current exit strategy principles and could be interpreted as allocating credit to a particular sector of the economy.

Finally, market functioning concerns across the two security types may also be relevant when considering the optimal purchase allocation. All of the LSAP options considered below assume that 60 percent of purchases are Treasury securities and 40 percent are MBS as benchmark. That allocation is roughly the ratio of estimated purchasable capacity for the two security types described in the memo entitled "Market Functioning and Limits on Asset Purchases" provided to the Committee ahead of its last meeting, so if comparisons of programs up to the maximum estimated size were desired, the allocation could be kept fixed. The allocation could be adjusted, of course, if a greater proportion of purchases in Treasury securities or MBS were desired for a total LSAP program that is smaller than the estimated maximum size. As discussed in the Appendix, staff estimates that, under a $1 trillion LSAP program, up to 75 percent of purchases could be made in Treasury securities, or 60 percent in MBS, without causing significant market disruption.

LSAP Program Options

Table 2 presents the key elements of the LSAP options considered. Under each of the options we assume that the MEP is discontinued and replaced by an LSAP program.[14] As a result, maturing principal amounts from Treasury securities begin to be reinvested again at auction, while the policy of reinvesting principal payments on agency debt and agency MBS into agency MBS is unchanged. For the exit strategy, we assume that redemptions of all assets begin six months prior to the initial increase in the federal funds rate and sales of MBS begin six months after liftoff. Sales of MBS are expected to eliminate MBS holdings over a five year period.

All four options include $75 billion in purchases each month, with $45 billion in Treasury securities and $30 billion in MBS. The first two options assume the completion of a $1 trillion LSAP program over 13 months, with purchases of $600 billion in Treasury securities and $400 billion in MBS. In option 1, we assume that the first increase in the federal funds rate takes place in June 2015, consistent with the LSAP scenario presented in the staff projection in the Tealbook for the July-August meeting.[15] In order to distinguish between the effects of the LSAP

[14] While the LSAP option presented in Alternative A of the July Tealbook included the possibility of a cut in the rate of interest paid on excess reserve balances (the IOER rate), the options here each assume that the IOER rate remains unchanged at 25 basis points.
[15] The July Tealbook LSAP scenario used a shorter-dated distribution for Treasury securities purchases than that used in this memo.

and the change in the liftoff date, option 2 presents the same $1 trillion LSAP program but with a federal funds liftoff date of December 2014. In option 3, the overall size of the program is reduced to $750 billion, and its length is shortened to 10 months. Finally, option 4 serves as a proxy for the effects of a flow-based purchase program in a scenario in which the economy proves to be weaker than currently projected.[16] It is assumed that the program ultimately lasts 26 months and purchases total $2 trillion, $1.2 trillion in Treasury securities and $800 billion in MBS. As in options 1 and 3, the federal funds rate is assumed to leave its effective lower bound in June 2015. All four of the options assume that the Treasury securities purchased have maturities of greater than four years, with a weighted-average duration of about 9 years and that MBS purchases are concentrated in newly issued securities.[17]

Consistent with the capacity analysis conducted ahead of the July FOMC meeting, the overall size and monthly pace of these programs would not be expected to result in a material disruption of functioning in the markets for either Treasury securities or MBS. After completing the $2 trillion in purchases assumed in option 4, the largest amount of purchases presented, the SOMA's share of the Treasury market with maturities greater than 4 years is expected to grow from 30 to 35 percent, and the SOMA's share of the MBS market is expected to grow from about 20 to about 35 percent. Furthermore, when including both LSAP purchases and reinvestments of principal payments on agency securities, MBS purchases as a share of gross issuance total roughly 60 percent, a proportion that appears feasible based on experience from the first LSAP program.[18] Table 3 provides a more detailed breakdown of the percent ownership of Treasury securities by maturity bucket at the end of each LSAP option.

Financial and Economic Impact

The four proposed LSAP programs are expected to put downward pressure on longer-term interest rates and thereby stimulate aggregate demand, but the modeling of the first three options is a bit different than the fourth, which is supposed to proxy for a flow-based LSAP program. Staff estimates suggest that option 1, which adds $1 trillion in securities to the balance sheet and pushes back the liftoff of the federal funds rate until mid-2015, reduces the term premium on the ten-year Treasury yield by 38 basis points, as shown in the third row of table 2. Option 2, which is of the same size but includes a liftoff date about six months earlier, has an associated term premium effect of 34 basis points; the difference with option 1 reflects the modest effect of changing the date when the federal funds rate first begins to rise and, as a result, the date when the balance sheet begins to shrink. Option 3 keeps the date of the first federal funds rate increase as in option 1 but reduces the amount of purchases by $250 billion; under option 3, the term

[16] As discussed in the memo by Jean-Philippe Laforte, David López-Salido, Steve Meyer, Ed Nelson, and John Roberts, "Macroeconomic Effects and Communication Issues Associated with Flow-Based Balance-Sheet Policies," the other options presented here could also be the outcome of an flow-based program. As discussed in that memo, the distinguishing feature of the scenario underlying option 4 is that the program is initially expected to entail $1 trillion in purchases, but, because of adverse shocks, the program is ultimately extended to $2 trillion.
[17] Purchases of newly-issued MBS would be conducted in the To-Be-Announced (TBA) market, which is the most liquid market for purchasing MBS. TBA market prices are used to price loans to borrowers, and thus are most closely linked to the primary mortgage rate.
[18] Purchases over the 26 months would represent roughly 60 percent of the projected gross issuance in the TBA market. Gross issuance projections are quite uncertain over such a long timeframe as they rely on model estimates for prepayment activity – the only assumed source of new issuance in the agency MBS market over the projection period.

premium falls by 27 basis points. The projected effects are presented in figure 1 and summarized in table 2. Option 1 reduces the unemployment rate over the next two years by about 0.6 percentage point, to 7.2 percent, while options 2 and 3 reduce it by a bit less.

It is difficult to make a simple comparison for option 4, in part because the economy is assumed to be weaker than under the other scenarios and the purchase program evolves with the outlook. The macroeconomic effects of this option are modeled in the memo by Laforte et al, and reported in figure 2. The FOMC and the public initially believe the SOMA portfolio will expand by $1 trillion. As a result, the immediate term-premium effect would be the same as in a stock-based $1 trillion LSAP program. Over time, however, as adverse news about the economy arrives, expectations for the total amount of purchases are revised up to $2 trillion. Once the public understands that the program will result in $2 trillion in purchases, the term-premium effects increase as do the expected macroeconomic effects. In essence, under a flow-based LSAP program, the ultimate size and evolution of the balance sheet, and therefore its effect on interest rates and the economy, depends crucially on the assumed evolution of economic activity, making a comparison to more straightforward LSAPs potentially challenging.[19]

Impact on Federal Reserve Balance Sheet and Income

For each scenario, we project the path of the Federal Reserve's balance sheet and its income and remittances to the Treasury. As shown in the top left panel of figure 3, an LSAP program leaves the level of the SOMA portfolio significantly higher than it would be under the current policy, with the level of reserves following a similar path to the level of the portfolio in all four scenarios considered.[20] In option 1, reserves are $2.3 trillion at the time of fed funds liftoff, nearly $1 trillion higher than the level in the July Tealbook Alternative B scenario. Option 2 is not substantially different than option 1 in this regard, and option 3 projects slightly lower reserve balances. By contrast, under option 4, reserve balances are $3.3 trillion at the time of the first increase in the federal funds rate.

Under option 1, asset sales begin six months after the assumed first increase in the federal funds rate in June 2015, and as a result, the portfolio shrinks to a normal size in April 2019, 41 months after MBS sales begin.[21] In contrast, if the funds rate were to depart the effective lower bound in December 2014, as considered in option 2, the portfolio would normalize in size in February 2019.[22] Reducing the size of the program to $750 billion, as in option 3, also results in the

[19] See the memo by Laforte et al. for additional discussion of this scenario.

[20] We do not consider different prepayment estimates in the analysis, because at the time of exit MBS prepayments are assumed to be largely insensitive to interest rate changes. Under the scenarios considered, at liftoff, mortgage rates would be higher than those on mortgages underlying most of the MBS portfolio, and therefore prepayments are less sensitive to upwards shifts in interest rates. As a result, the change in MBS prepayments from different interest rate assumptions would have only small effects on the balance sheet and income projections. The impact on exit can be seen in the comparison between the option 1 scenario under the baseline rate path and the shocked rate path.

[21] The exit strategy principles published in June 2011 suggest that the size of the portfolio would be normalized within three years of the initiation of asset sales. The staff memo "The effect of an additional $1 trillion LSAP on the exit strategy" (distributed to the Committee on August 27, 2012) summarizes issues related to the exit strategy principles. For the analysis here, each of the options assumes MBS are sold over a five year period. As discussed further in the memo on exit issues, the pace of sales would have to be somewhat more rapid under any of the LSAPs in order to be aligned with the exit principles.

[22] The faster normalization under option 1 as compared to option 2 reflects the additional growth in Federal Reserve notes and bank capital over the additional time before asset sales begin. The growth in these balance sheet items

normalization of the size of the balance sheet in February 2019. Finally, under the $2 trillion LSAP scenario, the portfolio does not normalize in size until February 2020.

As outlined in table 2, cumulative remittances to the Treasury from 2012 to 2020 are similar under the LSAP scenarios considered, although they are $25 to $50 billion lower than in the July Tealbook Alternative B scenario, which did not contain an LSAP program.[23] Through 2017, as shown in figure 3, remittances are higher under all of the LSAP scenarios because the higher interest income associated with a larger portfolio outweighs the growth in interest expense associated with paying interest on a higher level of reserve balances. However, later in the projection period, the increase in interest expense and larger capital losses from MBS sales push remittances lower than would be the case without an additional LSAP program.[24] Once the size of the balance sheet normalizes and purchases of higher-yielding Treasury securities begin, remittances recover. Under options 1, 2, and 3, annual remittances decline to roughly zero by 2018. Under the larger option 4, remittances fall to zero for more than 6 years, creating a substantial deferred asset.

In general, an LSAP program will cause the Federal Reserve to face more income risk as interest rates rise, given the portfolio's larger size and its higher overall level of interest rate risk.[25] To demonstrate the risks to income of a higher interest rate environment, we consider an alternative scenario for options 1 and 4, in which market interest rates are 100 basis points higher after the time of federal funds liftoff than in the model simulations. Specifically, we assume that one year after federal funds liftoff, the federal funds rate and 10-year Treasury yield are 100 basis points above their levels in the baseline versions for each of options 1 and 4 and that the higher level of interest rates persists for the remainder of the projection period.

With this assumption, under option 1—shown in figure 4—remittances to the Treasury fall to zero in 2017 and remain there through 2020. A deferred asset is created that lasts for about four years. The lower income reflects both the higher interest expense from the higher interest rate paid on reserves and larger capital losses on MBS sales because market rates are higher. In total, compared to the baseline interest rate path discussed above, the higher interest rate scenario reduces cumulative remittances under option 1 by $43 billion from 2012 to 2020.

Had the LSAP program in option 1 not been implemented and instead the MEP was completed as announced, then the higher rate scenario would also reduce cumulative remittances, in this case by $24 billion. Because the higher interest rate scenario lowers cumulative remittances by $43 billion with the LSAP and by $24 billion without the LSAP, one could approximate the additional interest rate risk of the LSAP as being about $19 billion in terms of cumulative remittances.

reduces the level of reserve balances. Different assumptions about the growth in these items will impact the time it takes for the portfolio to normalize.

[23] Cumulative remittances from 2020 to 2025 under the $2 trillion scenario are notably lower than that for the other scenarios, and there is a deferred asset that is projected to persist through 2023.

[24] Interest expense on reserve balances is calculated based on the projected level of the federal funds rate. Essentially, we are assuming that the IOER rate and the rates paid on reserve management tools—reverse repurchase agreements and term deposits—are equal to the federal funds rate. In practice, these rates may exceed the federal funds rate, particularly the rate on reserve draining tools, and as a result, interest expense would be somewhat higher than calculated, reducing remittances by the same amount.

[25] An illustration of these risks is the information on unrealized gains and losses contained in figures 3 and 4.

The losses from substantially higher interest rates are more noticeable in the $2 trillion LSAP scenario of option 4, shown in figure 5. In this scenario, remittances approach zero in 2016 and stay at that level for about 8 years. As a result, a substantial deferred asset is created, which reaches a maximum value of around $200 billion in 2020, and lasts for a considerable number of years. For this LSAP program, the cumulative difference in remittances through 2025 for the baseline interest rates versus the substantially higher interest rates is $70 billion.

Conclusion

This memo presents four options for implementing an LSAP program, should the Committee wish to provide additional monetary accommodation. Each of the options involves purchases with an allocation of 60 percent in Treasury securities and 40 percent in MBS, which is roughly proportional to the estimated purchase capacity in the two markets and is unlikely to result in significant disruptions to market functioning. In the staff models, the composition of purchases has relatively little effect on the macroeconomic outcomes, but the Committee may wish to consider an alternative distribution between Treasury securities and MBS based on other considerations, such as different modeling assumptions than those used by the staff, different risk characteristics of the assets, the implications of the asset mix for the exit strategy, or the perception of credit allocation or debt monetization.

The $1 trillion stock-based LSAP options presented are estimated to reduce the unemployment rate by between 40 and 60 basis points after two years relative to a projection without the LSAP. The program would also increase inflation between 25 and 45 basis points over a similar time period; larger programs are estimated to have a larger economic impact. These FRB/US results are, of course, subject to considerable uncertainty, and our results would differ using different macroeconomic models. Options 1 through 3 imply similar cumulative remittances to the Treasury, but in the case of option 4, the $2 trillion LSAP program, a large deferred asset is created. Moreover, in an alternative scenario in which market interest rates are substantially higher than projected, capital losses and interest expense are noticeably higher than they would be should an additional LSAP not be conducted, resulting in a number of years of zero remittances, lower cumulative remittances, and accumulation of a deferred asset under the options considered.

Appendix

This appendix provides a summary of the financial, macroeconomic, balance sheet, and income effects of asset allocations that differ from the allocation of 60 percent to Treasury securities and 40 percent to MBS considered in the four options presented in the memo. In particular, we consider two alternative distributions.[26] The first alternative option involves the purchase of $750 billion in Treasury securities and $250 billion in MBS. This scenario represents the most Treasury purchases with an average duration of about nine years that the Desk could conduct over a 13 month period without risking significant market functioning issues.[27] The second alternative option involves the purchase of $400 billion in Treasury securities and $600 billion in MBS, also over a 13 month period. This scenario represents the most MBS purchases that the Desk could conduct without risking significant market functioning issues. Both alternative distributions consider a purchase pace of $75 billion per month, consistent with the four options presented in the memo. Furthermore, given that each scenario involves the most aggressive purchase pace for a given asset class, it is likely that neither alternative option could be extended for an additional year without causing market functioning issues.

A summary of the scenario results is found in Appendix Table 1 and Appendix Figure 1.

[26] In each alternative distribution, the securities to be purchased are consistent with the four options presented in the memo. Specifically, the Treasury securities to be purchased have an average duration of about 9 years, and the MBS to be purchased are concentrated in newly issued securities. Each alternative assumes that such a program would last approximately 13 months.
[27] It is possible that the Desk could purchase more than $750 billion Treasury securities in a 13-month period; however, additional purchases would have a much shorter duration and, therefore, smaller financial and economic benefit.

Table 1

Maximum Impact Over Next Two Years (basis points)		Program	
		$500B Treasury LSAP (Avg Duration: 9 yrs)	$500B MBS LSAP
	Term Premium Effect	-21	-16
	MBS Current Coupon	-21	-29
	Mortgage rate	-21	-24
	Unemployment Rate	-20	-16
	Core PCE Inflation	13	10
	Real GDP	43	34

Note: Estimates based on staff exit strategy assumptions.

Table 2
Key Scenario Assumptions and Projections

	No Policy Action	Option 1	Option 2	Option 3	Option 4
	Continue MEP	$600B Treasury/ $400B MBS	$600B Treasury/ $400B MBS	$450B Treasury/ $300B MBS	$1200B Treasury/ $800B MBS
Additional Program Details					
Program Length		13 months	13 months	10 months	26 months
Average Duration of Treasury Purchases		9 years	9 years	9 years	9 years
Maximum Financial Market Impact (bp)					
Term Premium		-38	-34	-27	N/A
Maximum Economic Impact (bp)					
Unemployment Rate Over Next 2 Years		-62	-38	-50	-92
Core PCE Inflation Over Next 2 Years		44	25	36	63
Exit Assumptions					
Fed Funds Liftoff	Dec-14	Jun-15	Dec-14	Jun-15	Jun-15
Redemptions Start	Jun-14	Dec-14	Jun-14	Dec-14	Dec-14
Agency MBS Sales Start	Jun-15	Dec-15	Jun-15	Dec-15	Dec-15
Agency MBS Sales End	May-20	Nov-20	May-20	Nov-20	Nov-20
Balance Sheet					
Reserves at Liftoff ($B)	1,363	2,296	2,361	2,038	3,314
SOMA Balance Normalization Date	Apr-18	Apr-19	Feb-19	Feb-19	Feb-20
Peak Size of SOMA ($B)	2,626	3,602	3,602	3,353	4,588
Income Metrics					
Cumulative Remittances ($B)[1]	364	322	319	338	315
Duration of < $5B Annual Remittances	N/A	2 years	3 years	N/A	4 years[2]
Cumulative Agency MBS Capital Losses ($B)	-33	-73	-69	-64	-106
100 bp Shock to All Rates Starting at Fed Funds Liftoff					
Income Metrics					
Cumulative Remittances ($B)[1]	340	279			298
Duration of < $5B Annual Remittances	N/A	4 years			5 years[3]
Cumulative Agency MBS Capital Losses ($B)	-53	-123			-166

[1] Cumulative remittances to the Treasury between 2012 and 2020.

[2] Duration of < $5B annual remittances is 6 years through 2025.

[3] Duration of < $5B annual remittances is 8 years through 2025.

Table 3
Percent of Treasury Securities owned by the Federal Reserve

Percent of Outstanding

	0 - 4 yrs	4 - 4 3/4 yrs	4 3/4 - 5 3/4 yrs	5 3/4 - 7 yrs	7 - 10 yrs	10 - 20 yrs	20 - 30 yrs
August 2007	28	17	11	9	10	14	13
Extended MEP End of Program - Dec 2012	6	16	33	36	32	30	38
Option 1 End of Program - Oct 2013	7	30	40	32	37	31	41
Option 3 End of Program - Jul 2013	7	26	38	31	36	30	40
Option 4 End of Program - Nov 2014	13	38	43	41	53	54	48

Includes nominal and inflation-protected securities

Figure 1
Macroeconomic Effects of Alternative Balance Sheet Policies

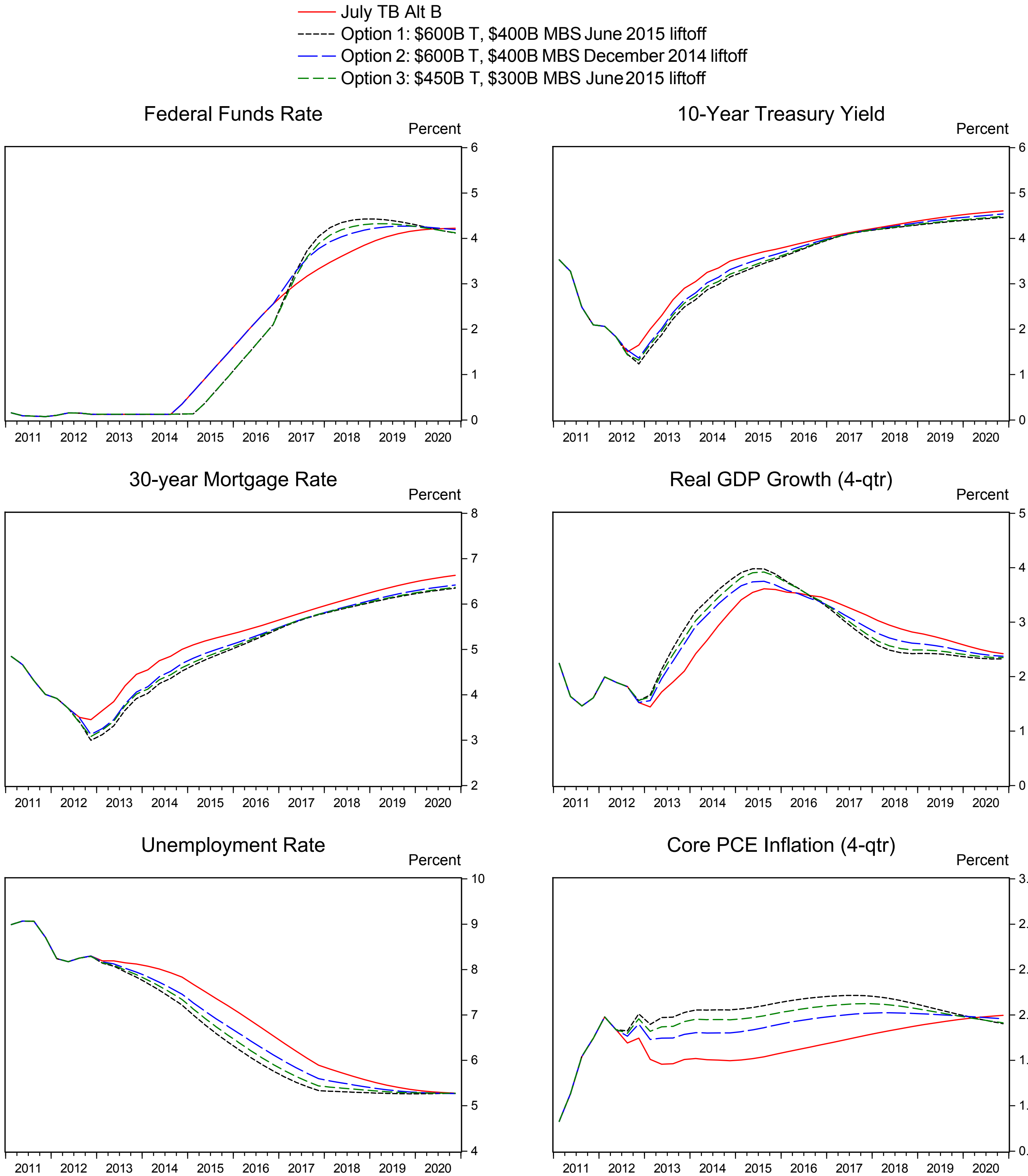


Figure 2
Macroeconomic Effects of Alternative Balance Sheet Policies, continued

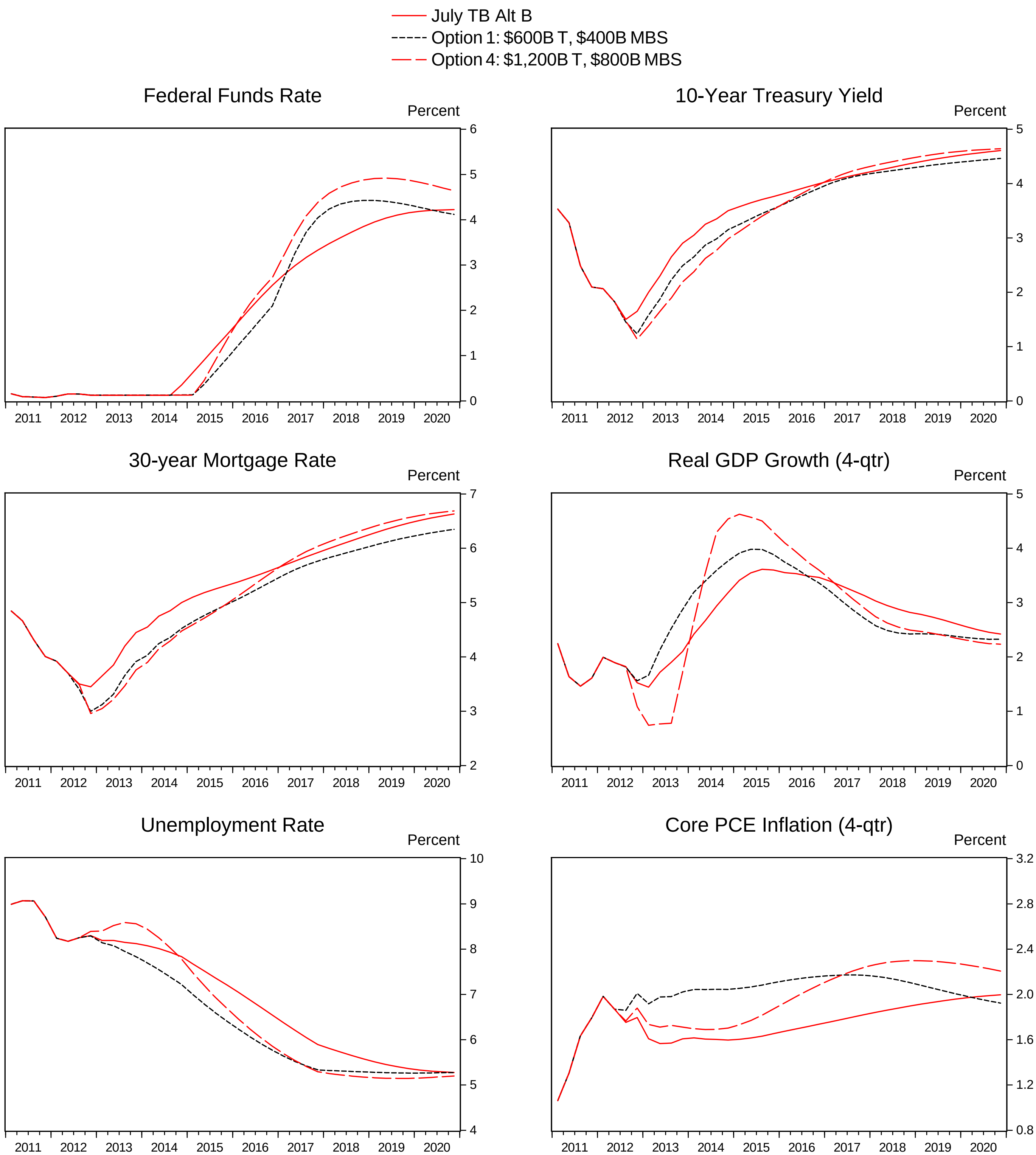


Figure 3

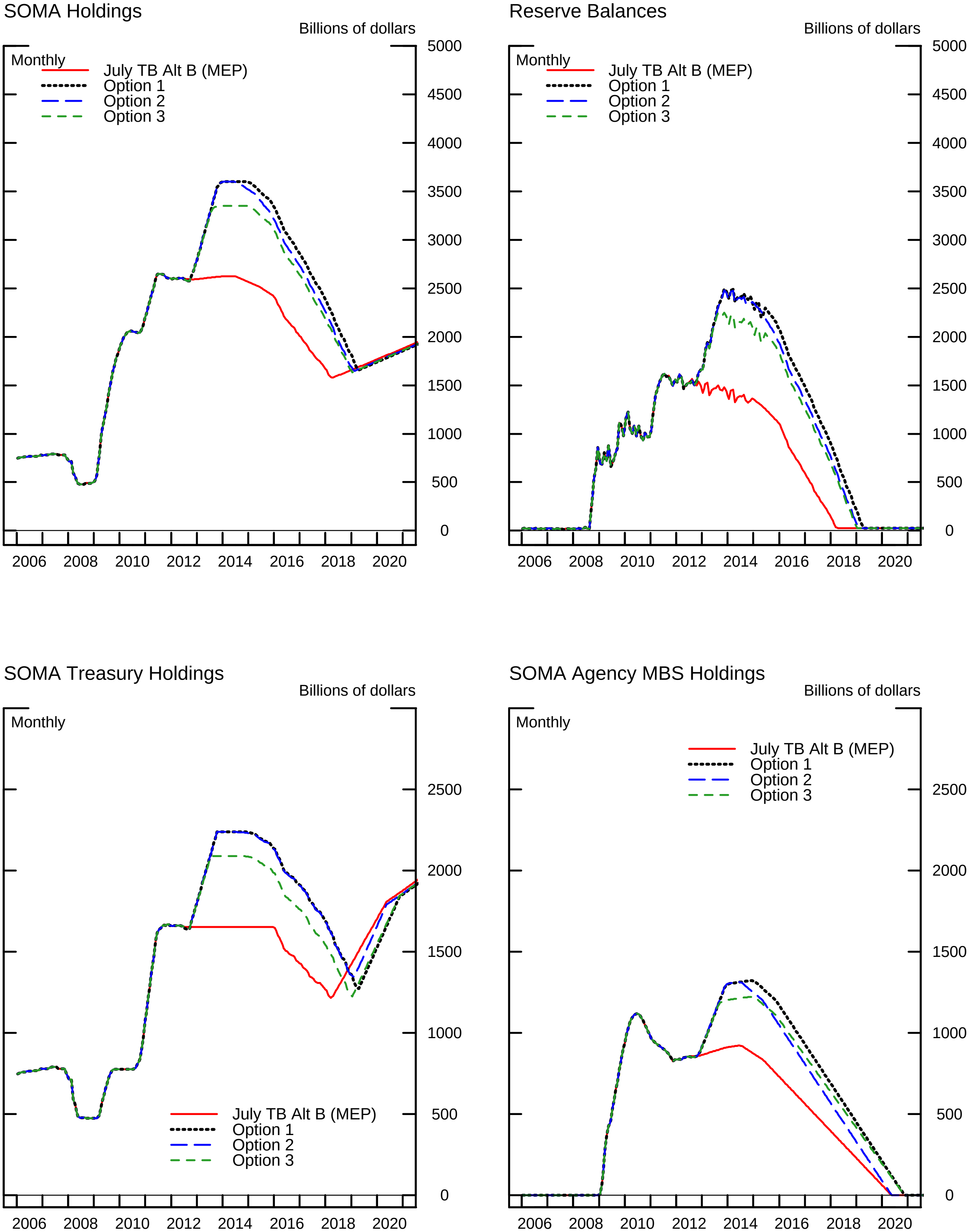
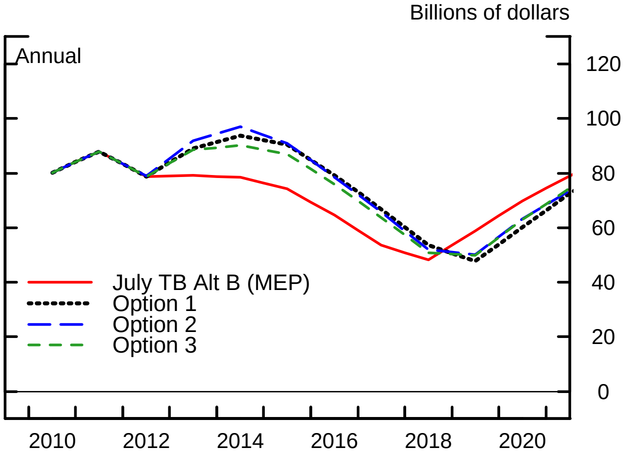
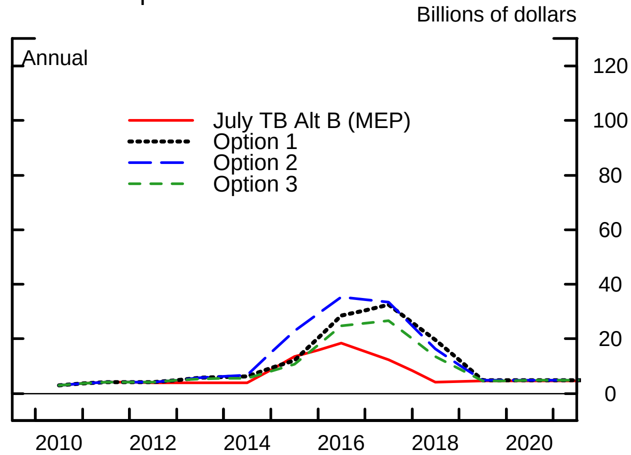

SOMA Holdings
Billions of dollars
Monthly
July TB Alt B (MEP)
Option 1
Option 2
Option 3
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
2006
2008
2010
2012
2014
2016
2018
2020
Reserve Balances
Billions of dollars
Monthly
July TB Alt B (MEP)
Option 1
Option 2
Option 3
SOMA Treasury Holdings
Billions of dollars
Monthly
July TB Alt B (MEP)
Option 1
Option 2
Option 3
SOMA Agency MBS Holdings
Billions of dollars
Monthly
July TB Alt B (MEP)
Option 1
Option 2
Option 3

Figure 3 (cont.)

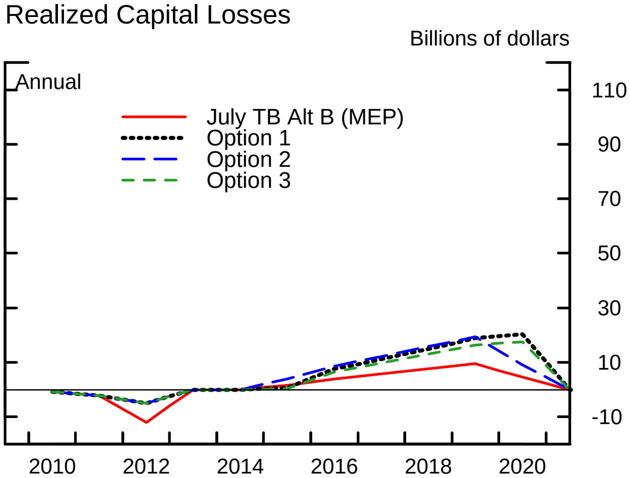
SOMA Interest Income



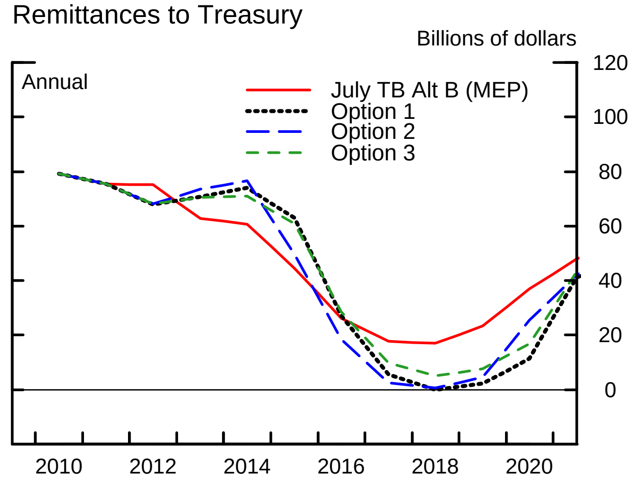
Interest Expense



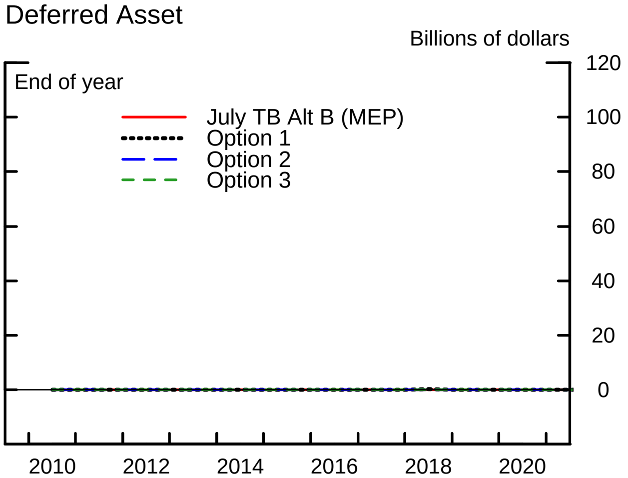
Realized Capital Losses



Remittances to Treasury



Deferred Asset



Unrealized Gains/Losses

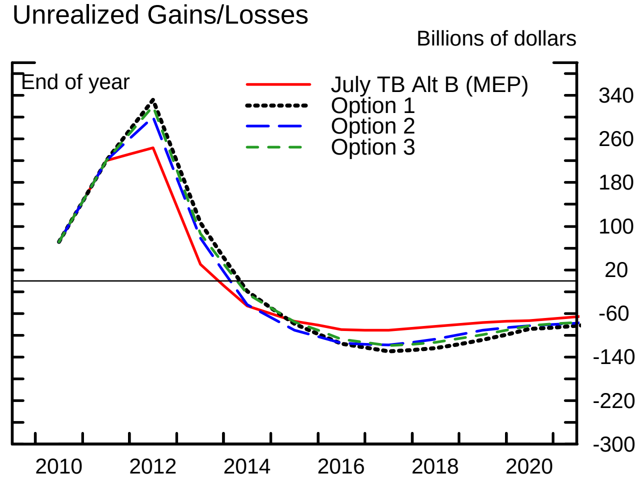
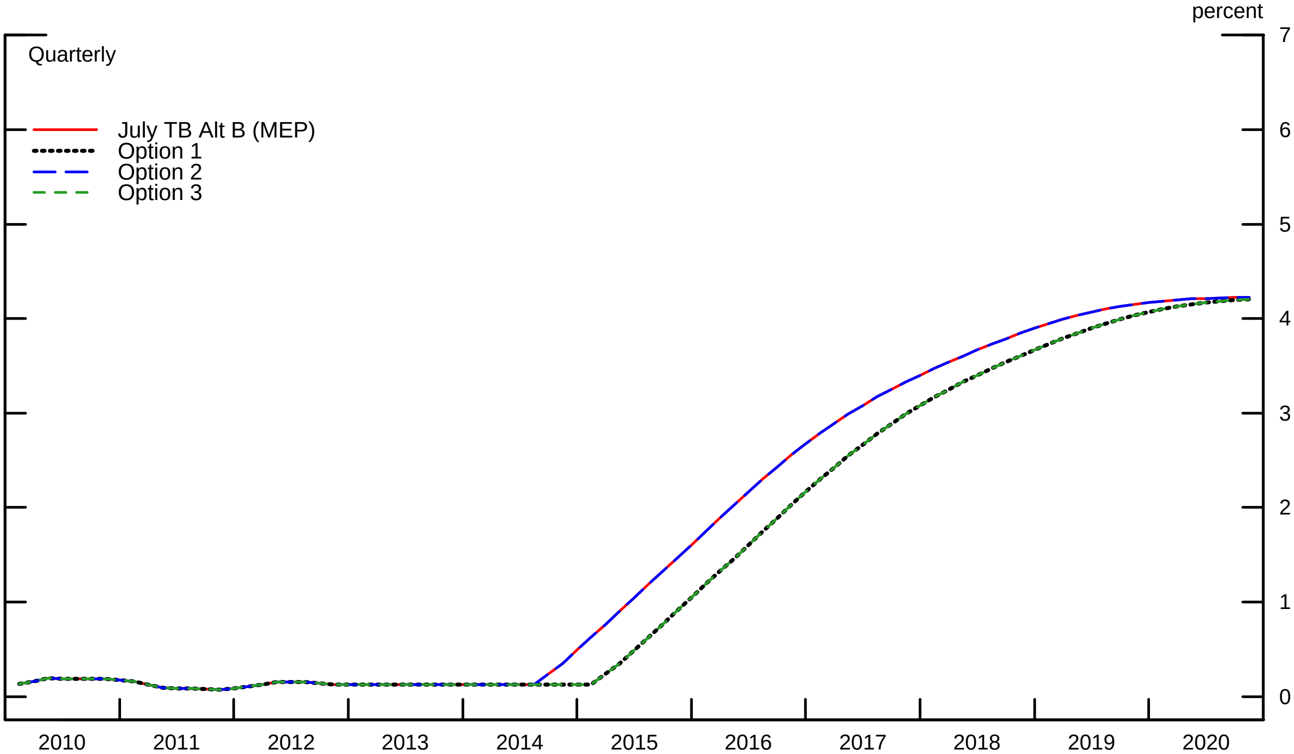


Figure 3 (cont.)

Federal Funds Rate



10 year Treasury Rate

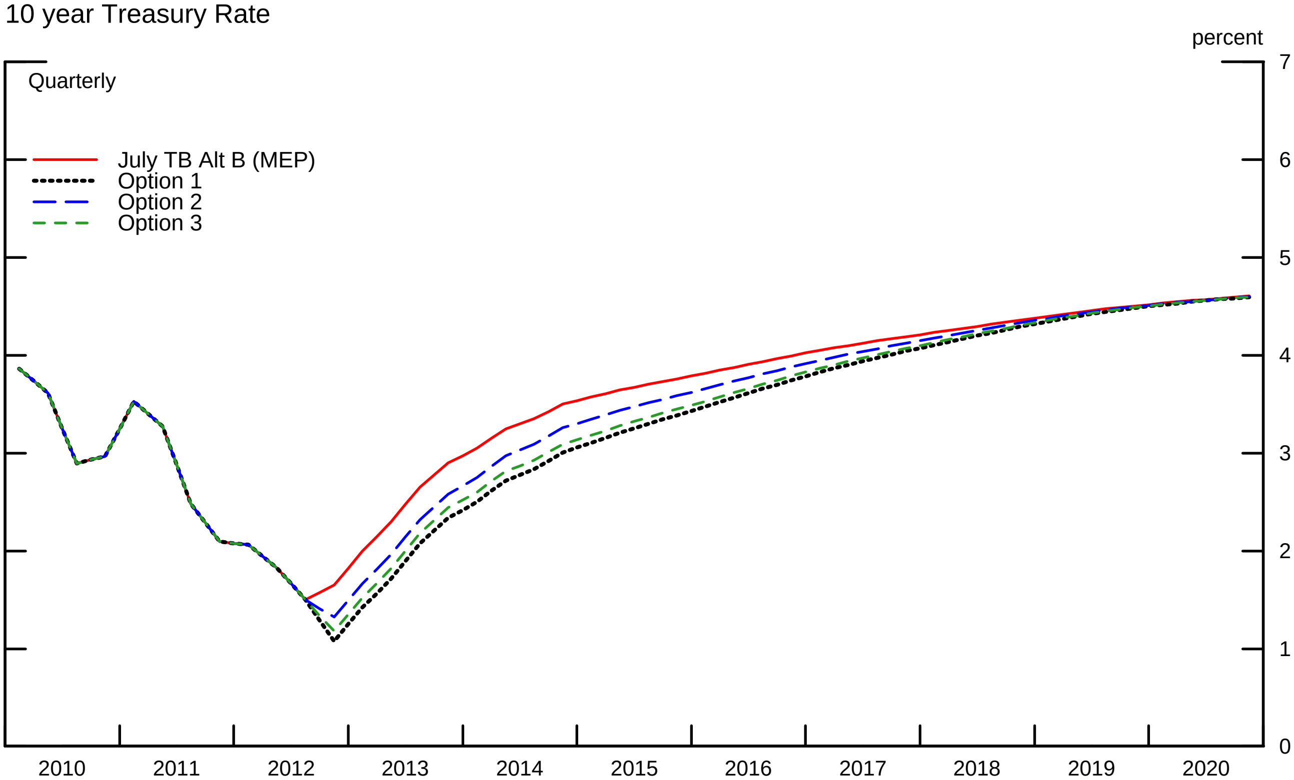


Figure 4

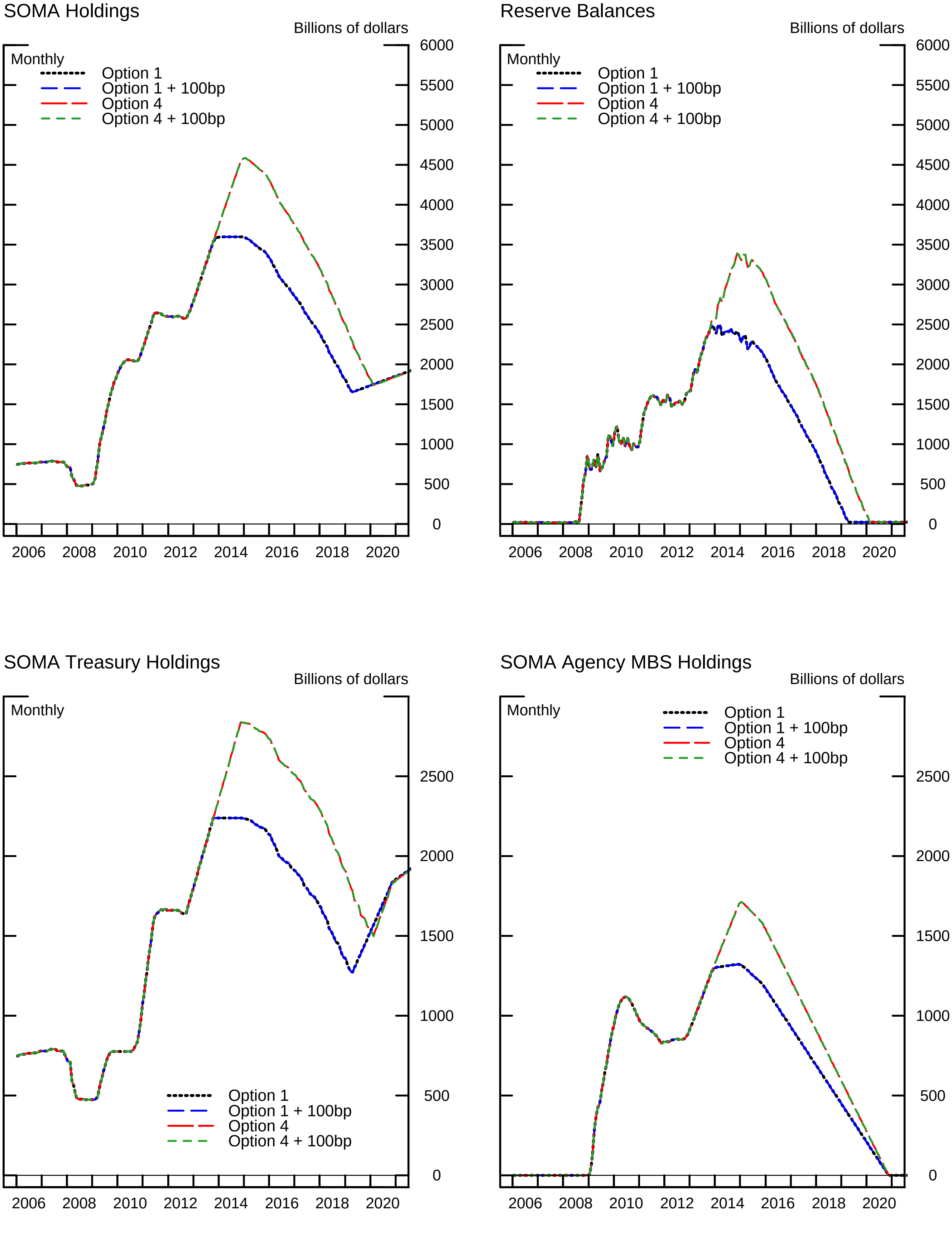

SOMA Holdings
Billions of dollars
Monthly
Option 1
Option 1 + 100bp
Option 4
Option 4 + 100bp
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
2006
2008
2010
2012
2014
2016
2018
2020
Reserve Balances
Billions of dollars
Monthly
Option 1
Option 1 + 100bp
Option 4
Option 4 + 100bp
SOMA Treasury Holdings
Billions of dollars
Monthly
2500
2000
1500
1000
500
0
SOMA Agency MBS Holdings
Billions of dollars
Monthly
Option 1
Option 1 + 100bp
Option 4
Option 4 + 100bp

Figure 4 (cont.)

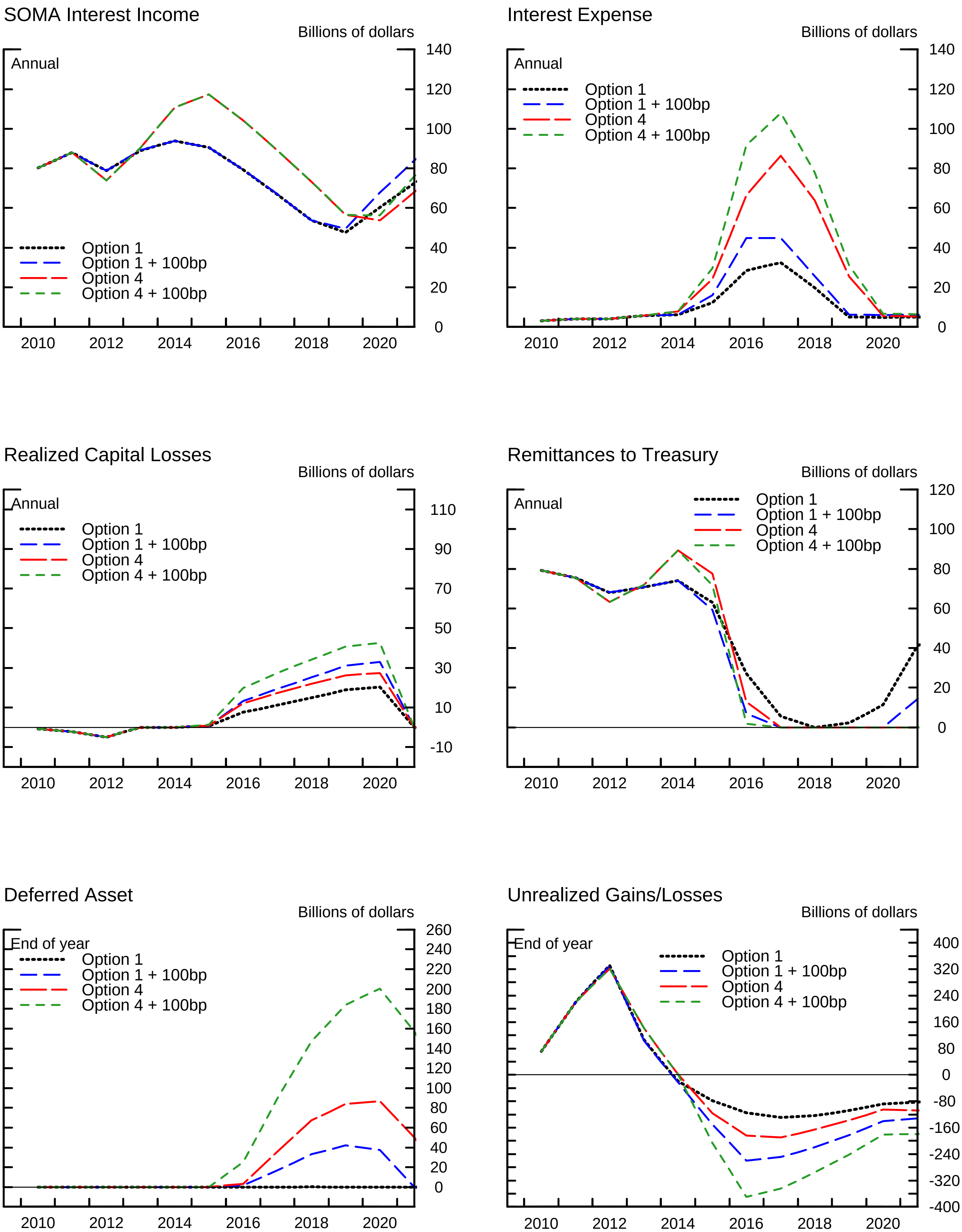
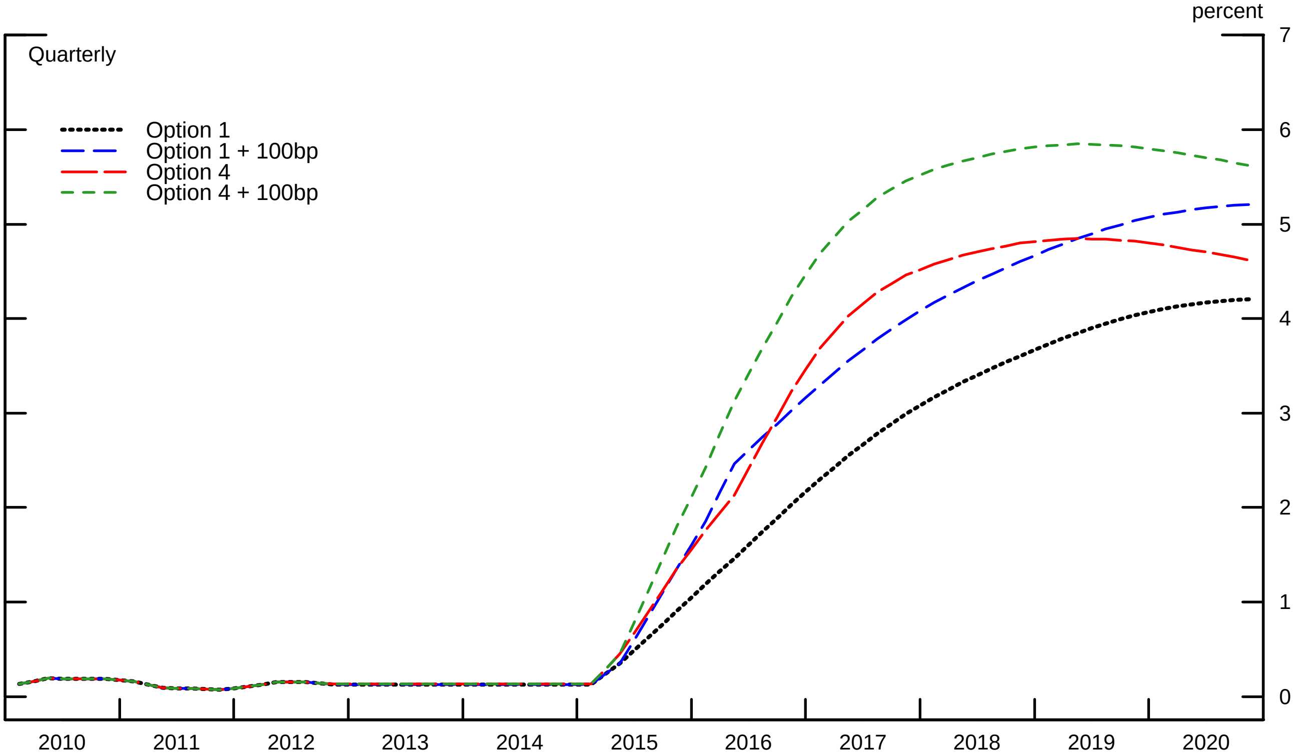
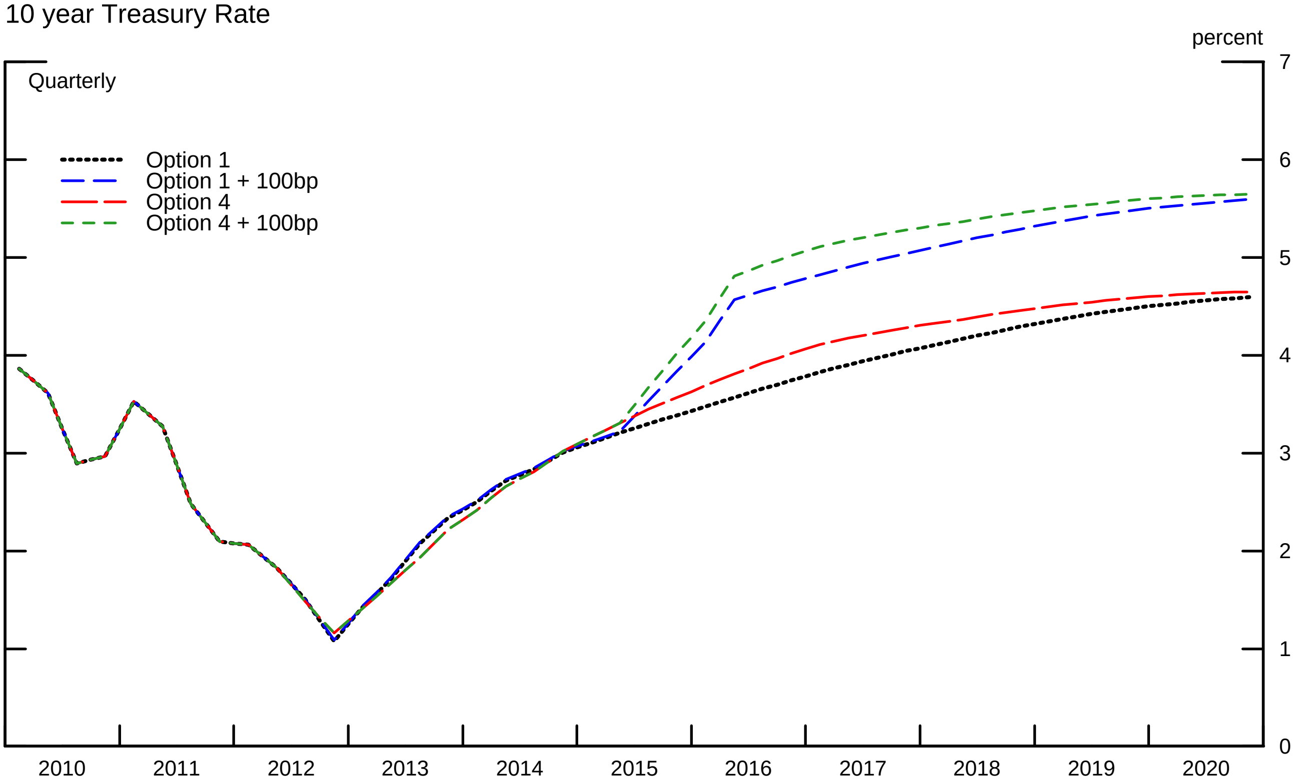


Figure 4 (cont.)

Federal Funds Rate



10 year Treasury Rate

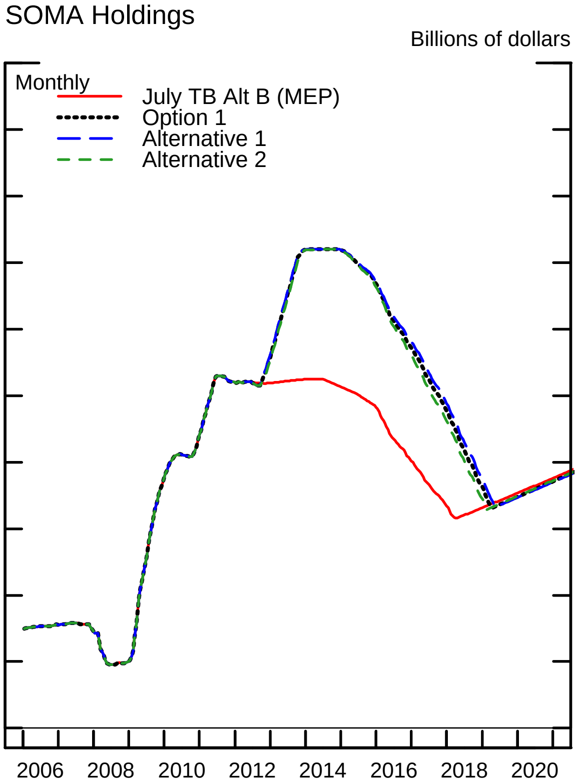


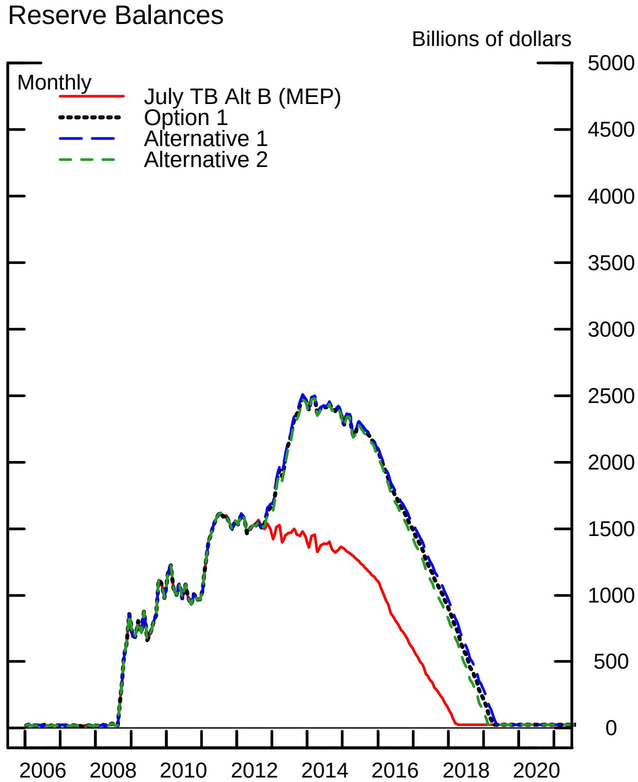
Appendix Table 1
Key Scenario Assumptions and Projections

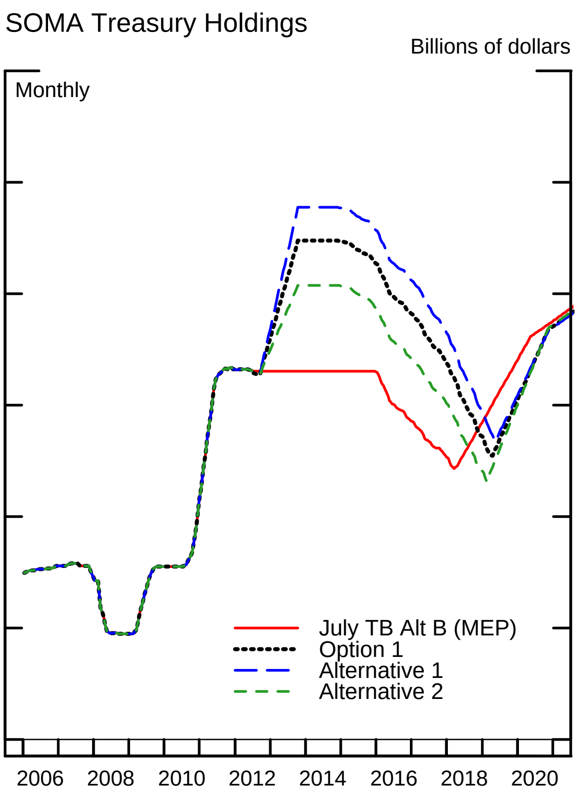
	No Policy Action Continue MEP	Option 1 $600B Treasury/ $400B MBS	Alternative 1 $750B Treasury/ $250B MBS	Alternative 2 $400B Treasury/ $600B MBS
Additional Program Details				
Program Length		13 months	13 months	13 months
Average Treasury Duration		9 years	9 years	9 years
Maximum Financial Market Impact (bp)				
Term Premium		-38	-39	-35
Maximum Economic Impact (bp)				
Unemployment Rate Over Next 2 Years		-62	-60	-60
Core PCE Inflation Over Next 2 Years		44	42	42
Exit Assumptions				
Fed Funds Liftoff	Dec-14	Jun-15	Jun-15	Jun-15
Redemptions Start	Jun-14	Dec-14	Dec-14	Dec-14
Agency MBS Sales Start	Jun-15	Dec-15	Dec-15	Dec-15
Agency MBS Sales End	May-20	Nov-20	Nov-20	Nov-20
Balance Sheet				
Reserves at Liftoff ($B)	1,363	2,296	2,309	2,278
SOMA Balance Normalization Date	Apr-18	Apr-19	May-19	Feb-19
Peak Size of SOMA ($B)	2,626	3,602	3,603	3,600
Income Metrics				
Cumulative Remittances ($B)[1]	364	322	321	323
Duration of < $5B Annual Remittances	N/A	2 years	2 years	2 years
Cumulative Agency MBS Capital Losses ($B)	-33	-73	-62	-89

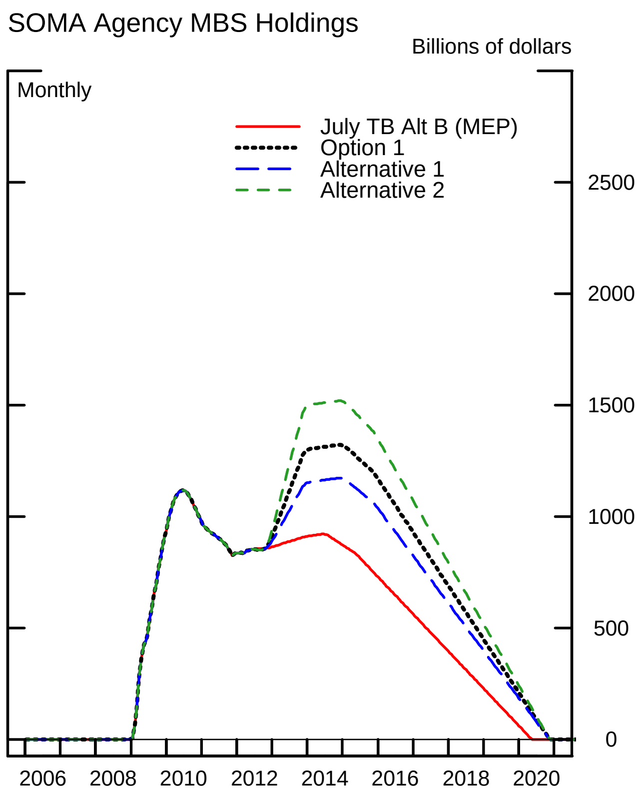
[1] Cumulative remittances to the Treasury between 2012 and 2020.

Appendix Figure 1



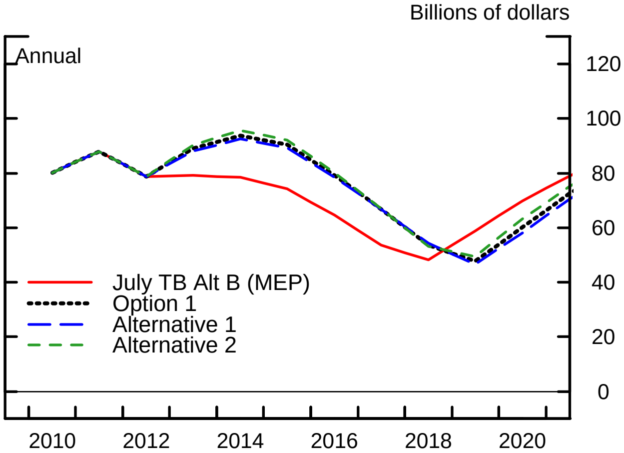




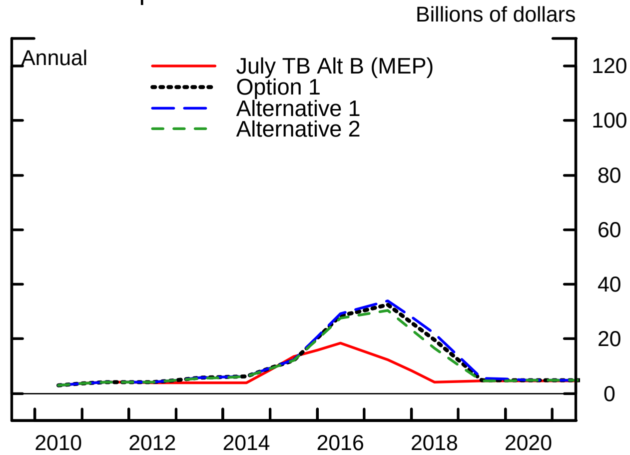


Appendix Figure 1 (cont.)

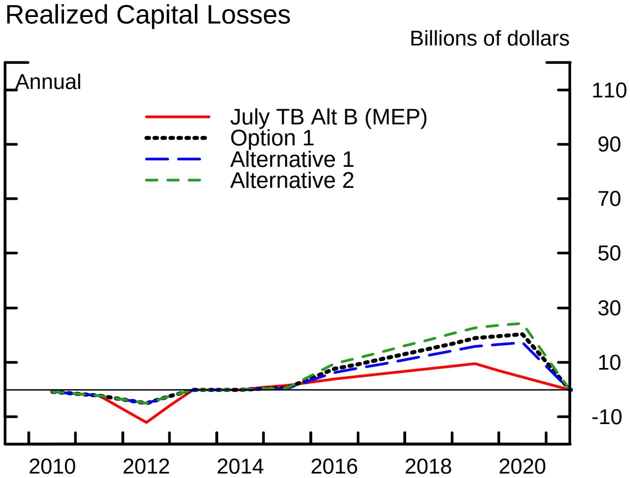
SOMA Interest Income



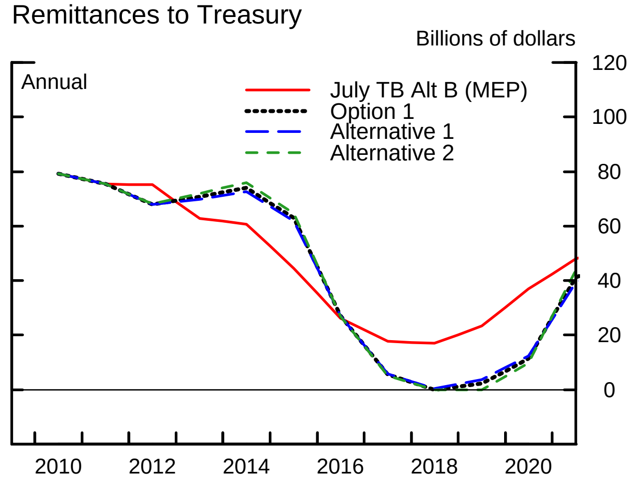
Interest Expense



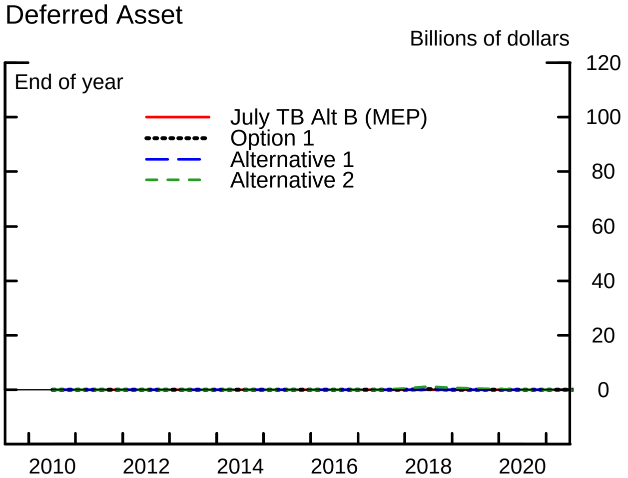
Realized Capital Losses



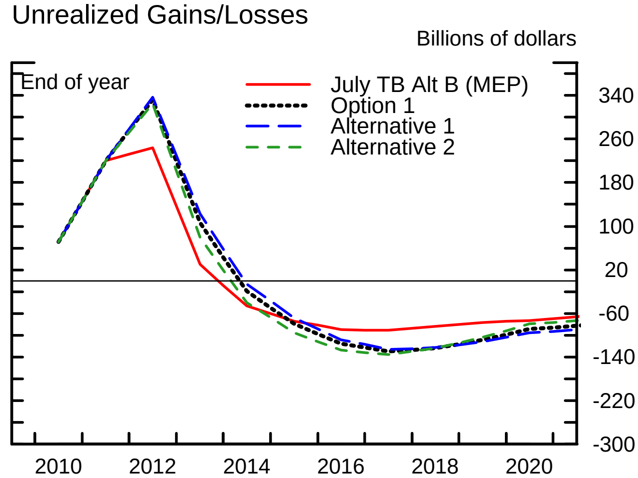
Remittances to Treasury



Deferred Asset

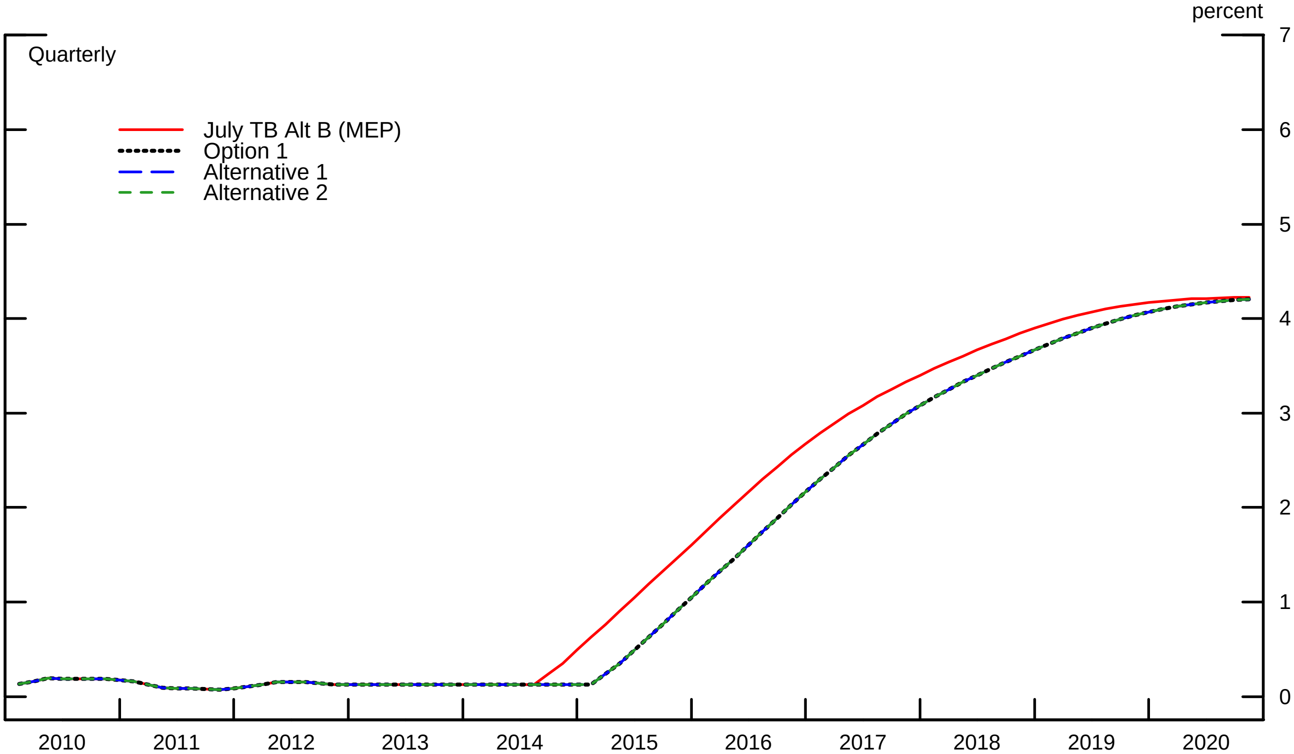


Unrealized Gains/Losses



Appendix Figure 1 (cont.)

Federal Funds Rate



10 year Treasury Rate