

**Appendix 1: Materials used by Mr. Potter**

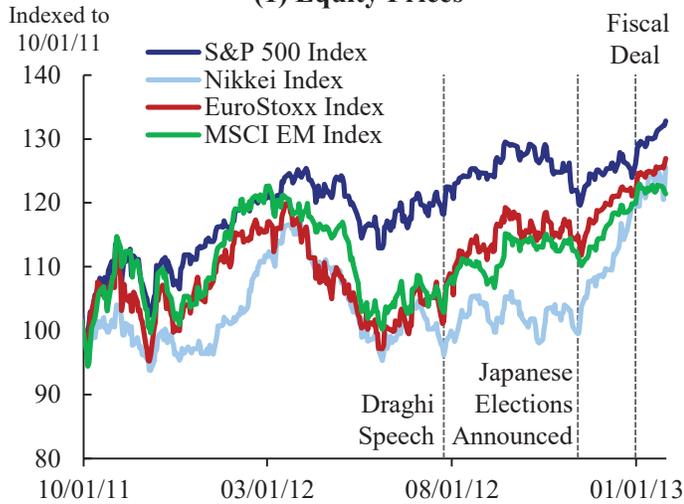
**Class II FOMC – Restricted (FR)**

*Material for*

**FOMC Presentation:**  
***Financial Market Developments and Desk Operations***

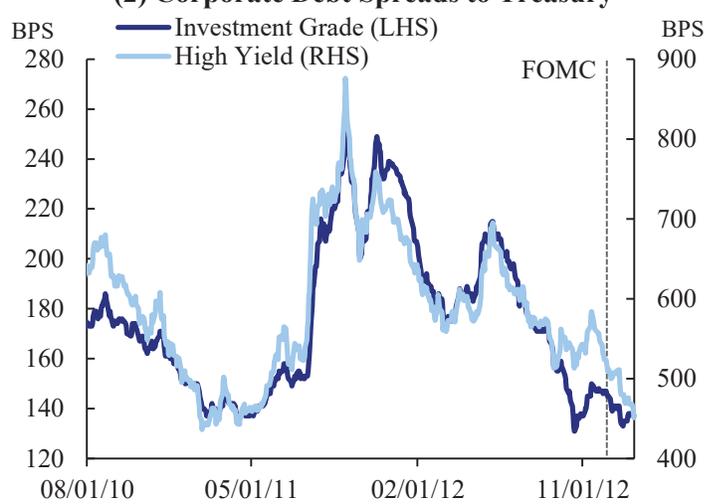
**Simon Potter**  
**January 29, 2013**

**(1) Equity Prices**



Source: Bloomberg

**(2) Corporate Debt Spreads to Treasury**



Source: Barclays

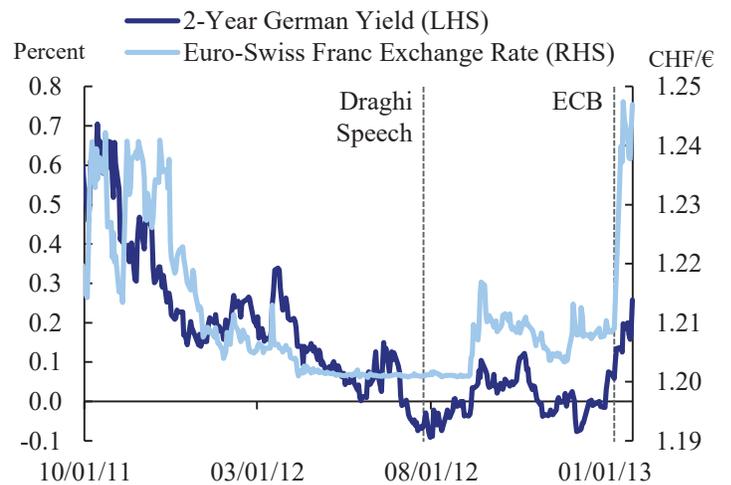
**(3) Financial Equity Prices**

	Intermeeting Period	Since LCR Announcement*
KBW Bank Index (S&P 500 Index)	+9.3% (+5.3%)	+0.7% (+2.5%)
EuroStoxx Bank Index (EuroStoxx Index)	+15.2% (+5.1%)	+7.5% (+1.7%)
U.K. FTSE Bank Index (FTSE 100 Index)	+12.8% (+6.1%)	+6.3% (+3.2%)

\*Revised LCR standards announced 01/06/13.

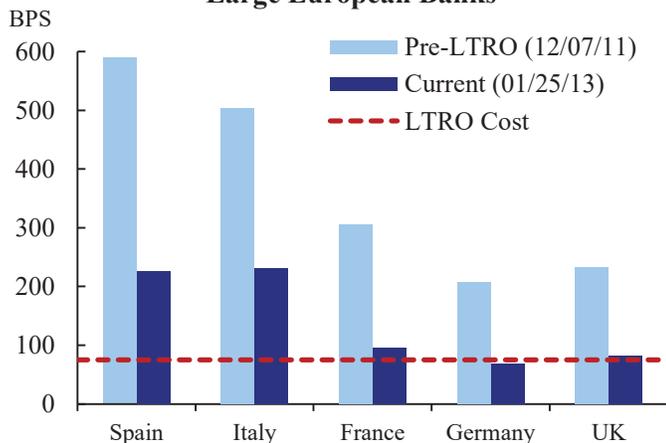
Source: Bloomberg

**(4) European Interest and Exchange Rates**



Source: Bloomberg

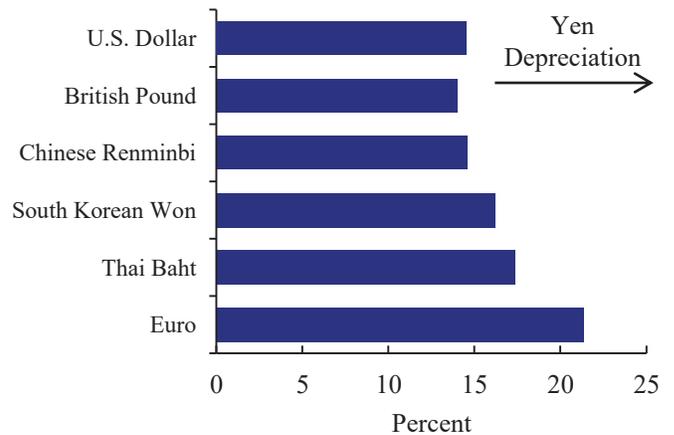
**(5) Two-Year Funding Rates for Large European Banks\***



\*Averages of CDS-implied funding rates for major financial firms.

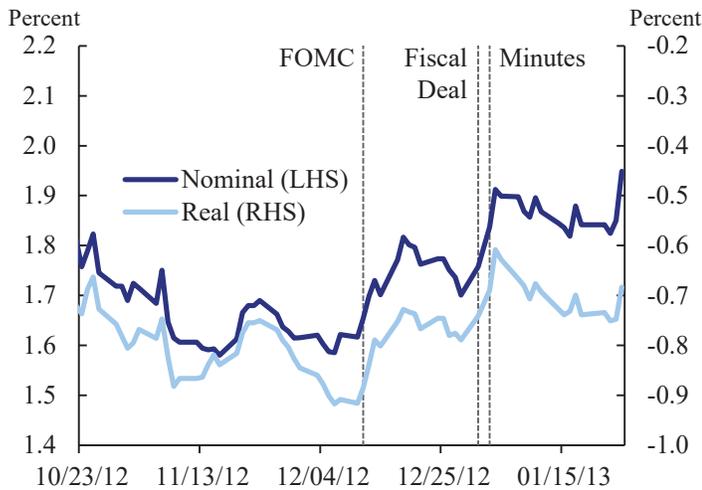
Source: Bloomberg, Federal Reserve Bank of New York

**(6) Japanese Yen Exchange Rate Changes Since Early Election Announcement (11/13/12)**



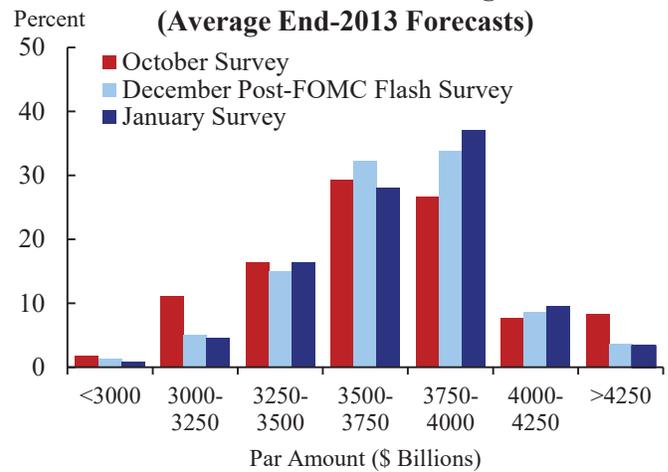
Source: Bloomberg

**(7) Ten-Year Nominal and Real Treasury Yields**



Source: Bloomberg

**(8) Probability Distribution of SOMA Portfolio Holdings (Average End-2013 Forecasts)**



Source: Federal Reserve Bank of New York Survey

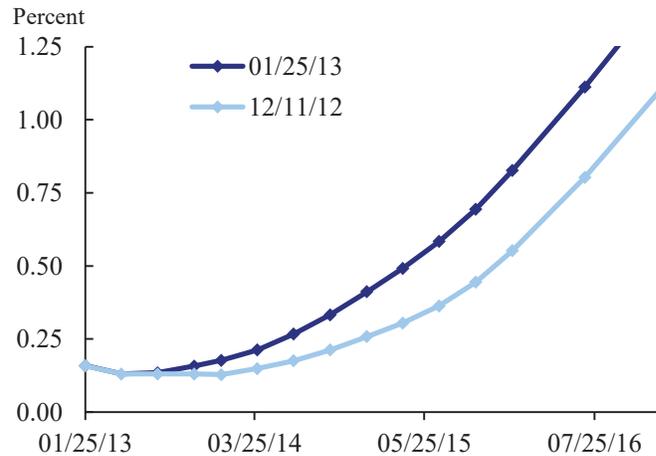
**(9) Expectations for Slowing of Asset Purchases and Criteria for Ending Purchases**

Expectations:	Number of Dealers	Median Purchases End	Median Size (\$ Billions)
No Slowing	5	Q4 2013	1,020
Slowing	16	Q1 2014	1,073

Criteria for Ending Purchases:	Labor Outlook	Efficacy	Costs
Number of Dealers:			
Very Important	16	1	3
Somewhat Important	1	1	3
Slightly Important	1	1	6

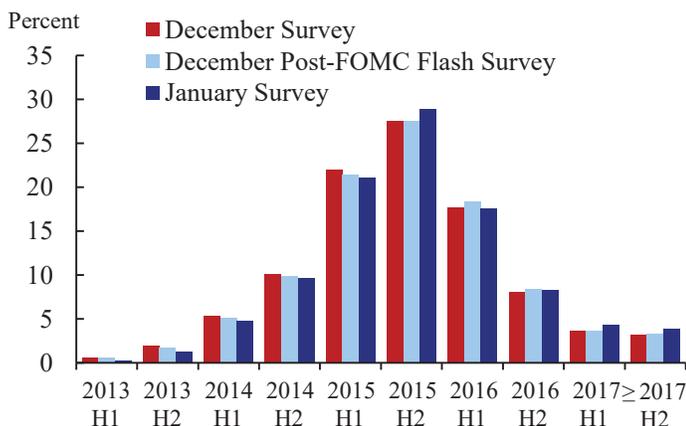
Source: Federal Reserve Bank of New York Survey

**(10) Implied Federal Funds Rate Path\***



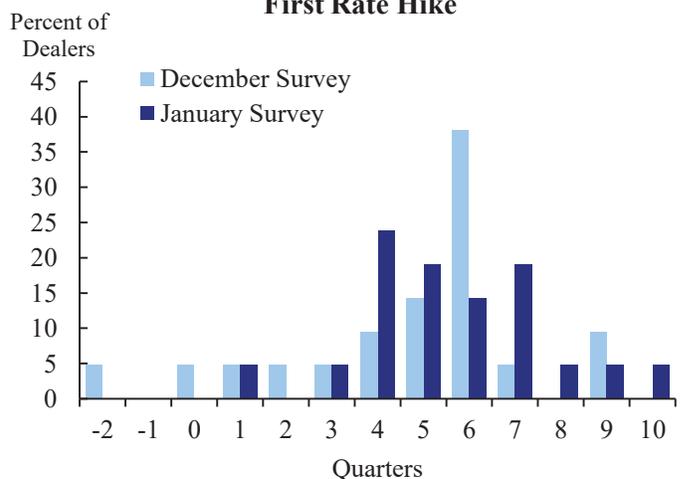
\*Derived from federal funds and Eurodollar futures.  
Source: Federal Reserve Bank of New York, Bloomberg

**(11) Probability Distribution of First Increase in Federal Funds Target Rate\***



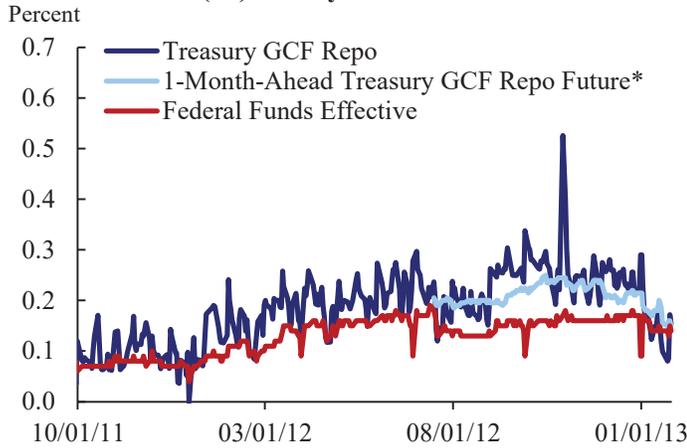
\*Average probabilities from dealer responses.  
Source: Federal Reserve Bank of New York Survey

**(12) Quarters Between End of Purchases and First Rate Hike**



Source: Federal Reserve Bank of New York Survey

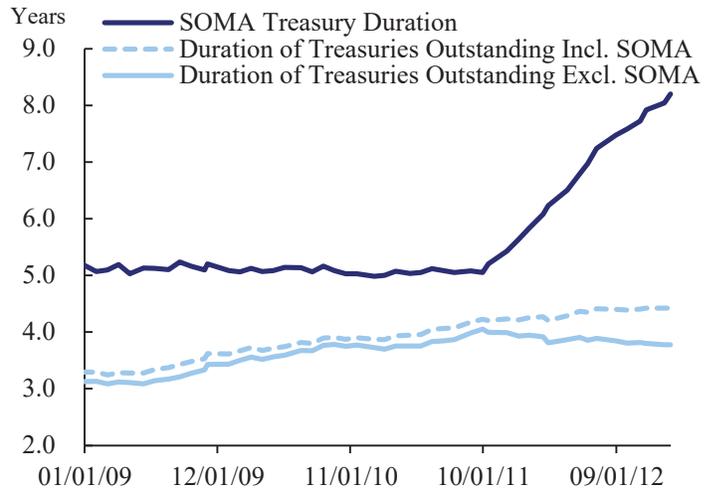
**(13) Money Market Rates**



\*Implied overnight rate averaged over subsequent calendar month. Contract began trading 07/16/12.

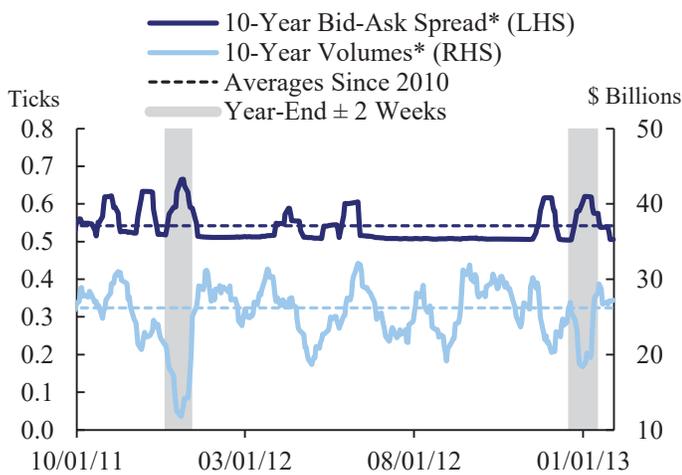
Source: DTCC, Bloomberg, Federal Reserve Bank of New York

**(14) SOMA Portfolio Treasury Duration**



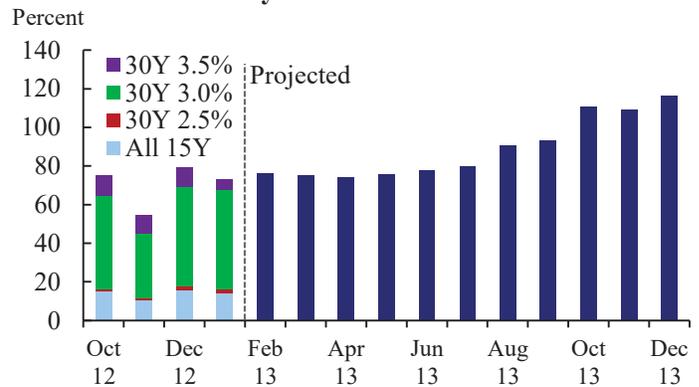
Source: Federal Reserve Bank of New York, U.S. Treasury

**(15) Treasury Market Liquidity**



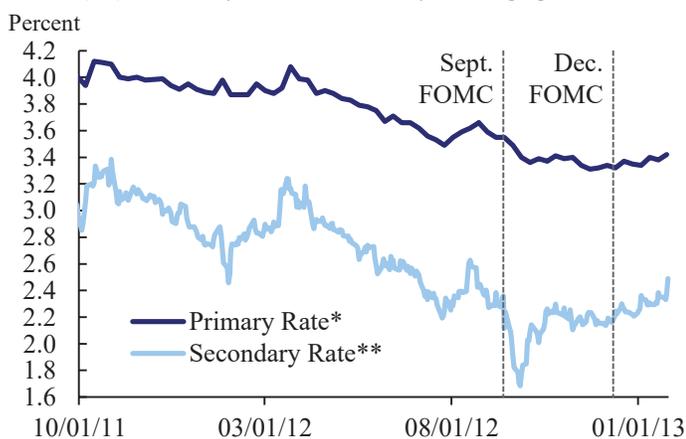
\*10-day moving averages of daily measures on benchmark securities. Source: BrokerTec, Federal Reserve Bank of New York

**(16) SOMA MBS Purchases as Percent of Monthly Gross MBS Issuance\***



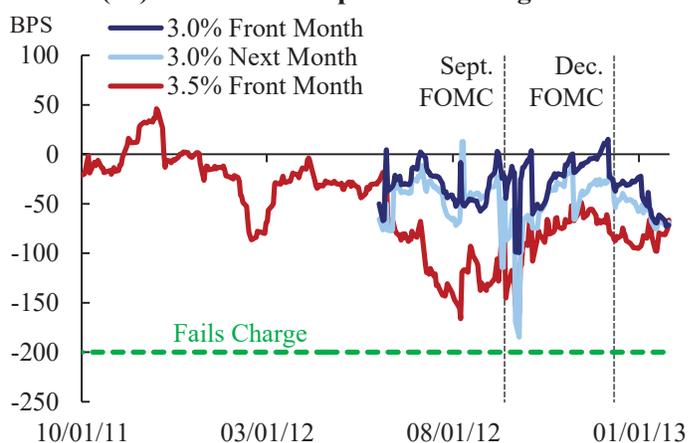
\*Based on adjusted TBA-eligible issuance. Realized coupon distributions proportionate to share of purchases allocated to each coupon, with total bar height indicating SOMA purchases as percent of monthly gross issuance. Source: Federal Reserve Bank of New York, BlackRock, eMBS, KDS

**(17) Primary and Secondary Mortgage Rates**



\*FHLMC 30-year survey rate. \*\*FNMA 30-year current coupon yield. Source: FHLMC, Bloomberg

**(18) Dollar Roll Implied Financing Rates\***



\*30-year FNMA dollar rolls. Front month is currently February-March roll; next month is March-April roll. Source: J.P. Morgan

**Appendix 2: Materials used by Mr. Engen and Ms. Wilson**

CLASS II FOMC - Restricted (FR)

*Material for*

*Staff Presentation on the  
Economic Outlook*

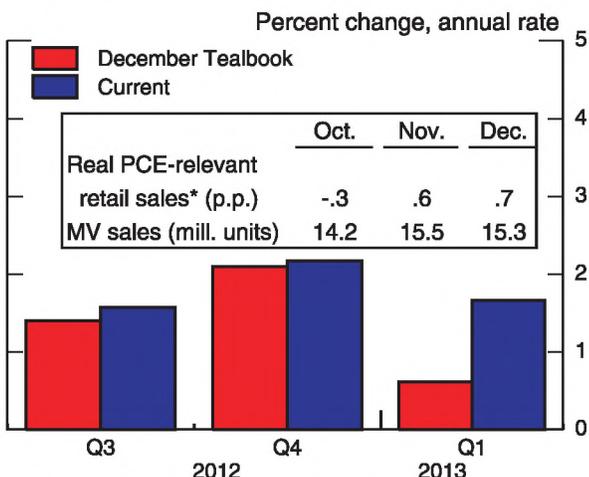
*January 29-30, 2013*

Class II FOMC - Restricted (FR)

Exhibit 1

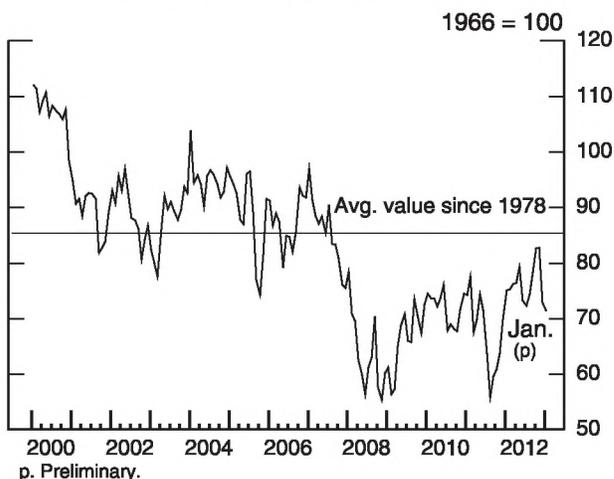
### Near-term Developments

#### Real PCE

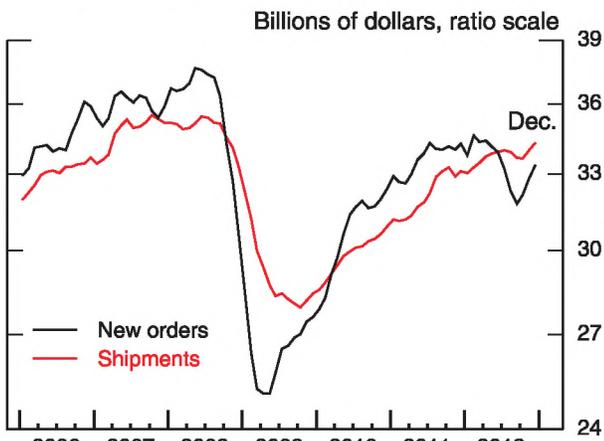


\* Retail sales are percent change at monthly rate.

#### Consumer Sentiment: Michigan Survey

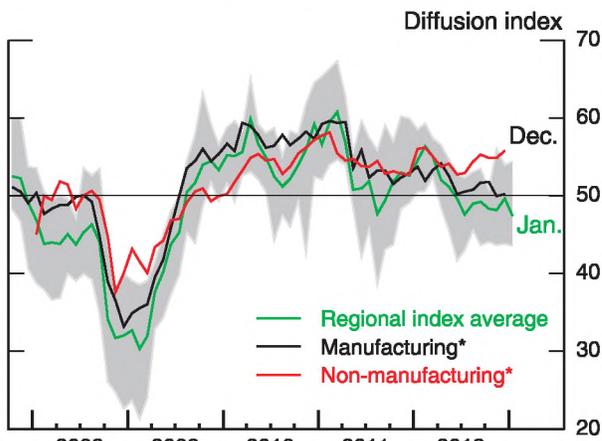


#### Nondefense Capital Goods Ex. Aircraft\*



\* 3-month moving average. Weighted by the share of total shipments that is purchased for private business investment.

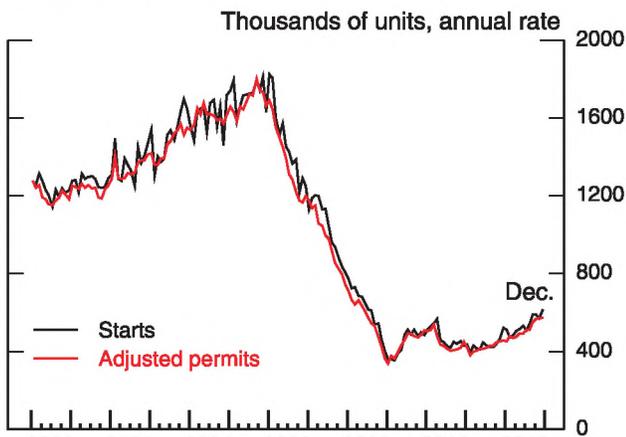
#### Business Conditions Indexes



\* PMI (manufacturing) and NMI (nonmanufacturing) composite indexes.

Note: The shaded area is the range of the available headline indexes from the regional manufacturing surveys.

#### Single-family Housing Starts and Permits\*



\* Permits are adjusted to include starts outside of permit-issuing places.

#### Near-term Outlook (percent change, annual rate)

	2012		2013
	Q3	Q4 <sup>f</sup>	Q1 <sup>f</sup>
1. Real GDP	3.1	0.1	2.7
2. (Dec. TB)	(2.8)	(.9)	(1.7)
3. PDFP	1.5	3.4	2.1
4. (Dec. TB)	(1.3)	(2.9)	(1.1)

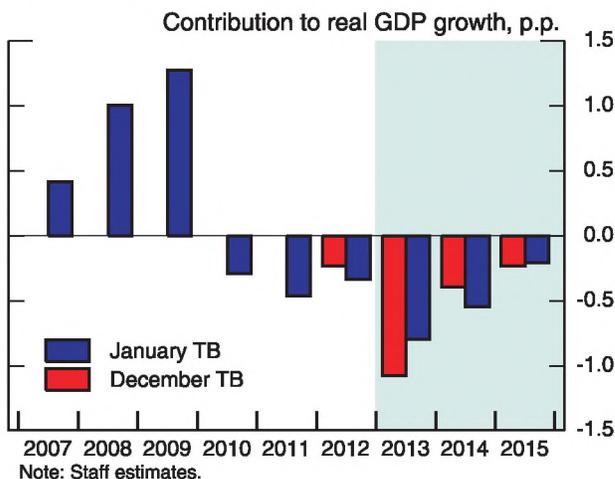
f. Staff forecast.

### Medium-term Outlook

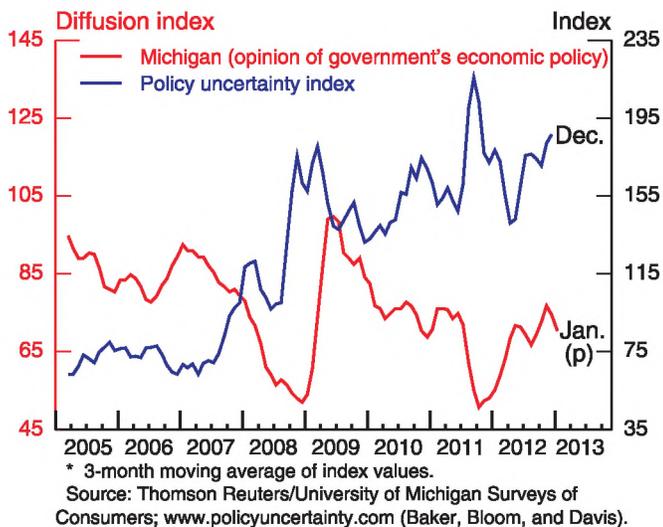
#### Fiscal Policy Assumptions

- Fiscal assumptions similar to December Tealbook.
  - Except EUC extended through 2013.
  - Still assume more gradual deficit reduction to replace sequestration.
- Policy risk remains regarding sequestration, continuing resolution, and debt limit.

#### Fiscal Impetus: Total Government



#### Assessment of Economic Policy and Policy Uncertainty\*



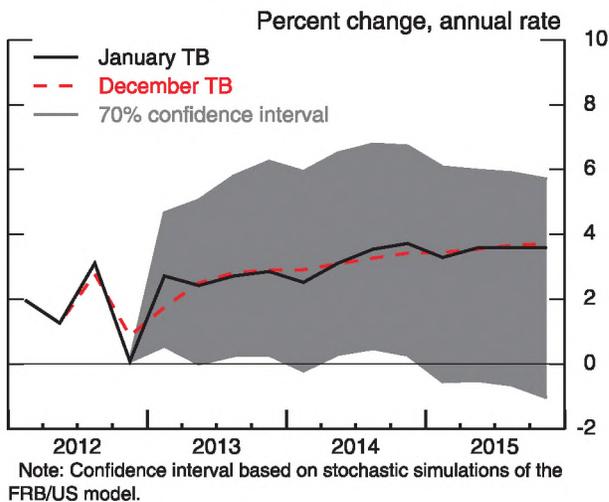
#### Monetary Policy Assumptions

- Implemented thresholds.
- Little effect on baseline path for federal funds rate.
- Assumptions about LSAPs unrevised.

#### Revisions to Supply Side

- Potential GDP revised down slightly in recent past and in projection.
- Natural rate declines gradually starting in 2012.

#### Real GDP Forecast

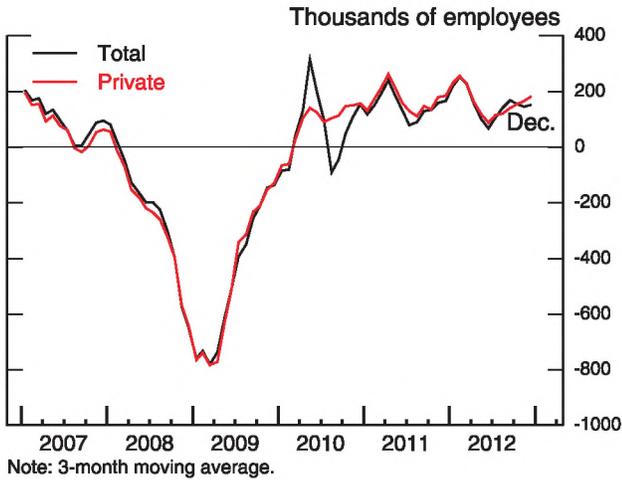


Class II FOMC - Restricted (FR)

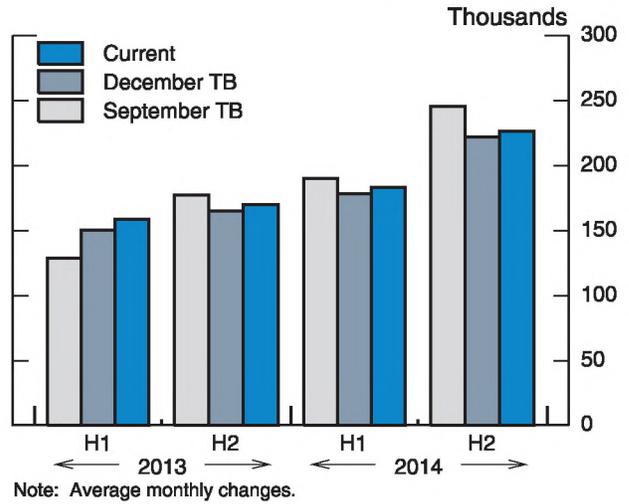
Exhibit 3

### Labor Market

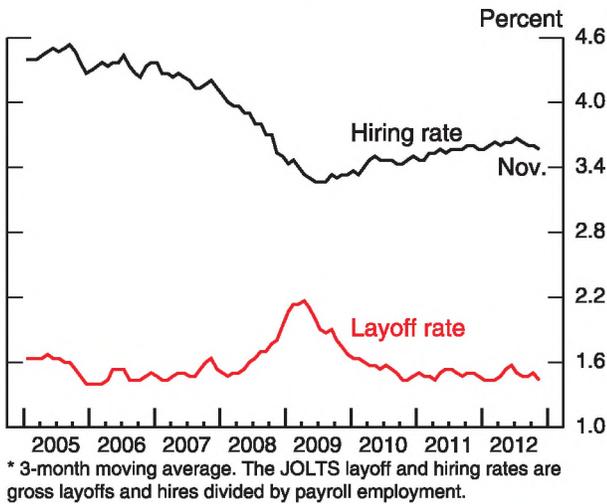
**Change in Payroll Employment**



**Change in Total Payroll Employment**



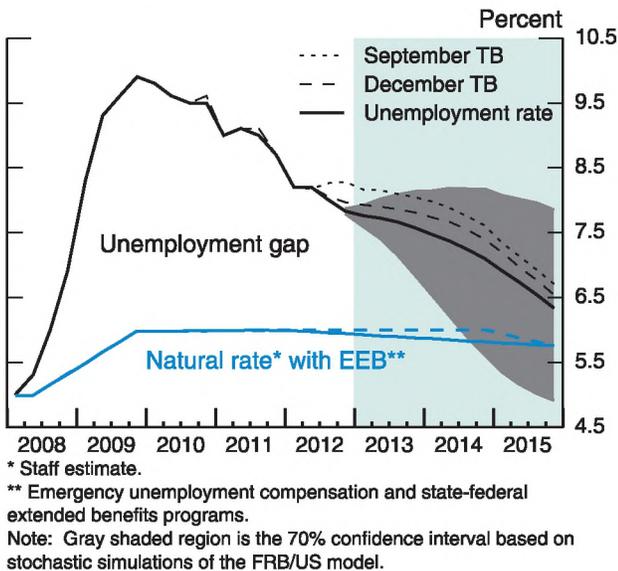
**JOLTS Layoff and Hiring Rates\***



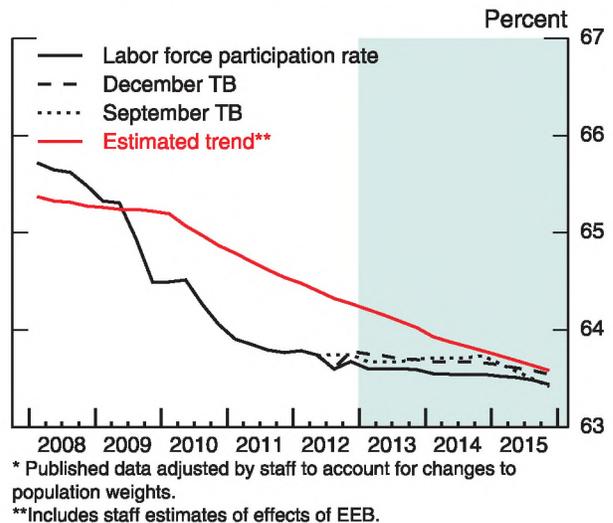
**Reserve Bank Inquiries of Their District Business Contacts**

Question	Percent		
	Jan. 2011	Jan. 2012	Jan. 2013
Plan to increase employment	45	41	38
Factors restraining hiring:			
Low sales growth	44	47	40
Policy uncertainty	31	31	32

**Unemployment Rate Forecast**



**Labor Force Participation Rate\***

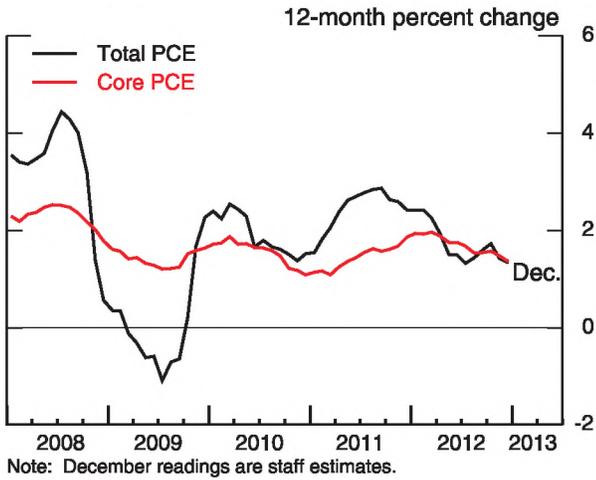


Class II FOMC - Restricted (FR)

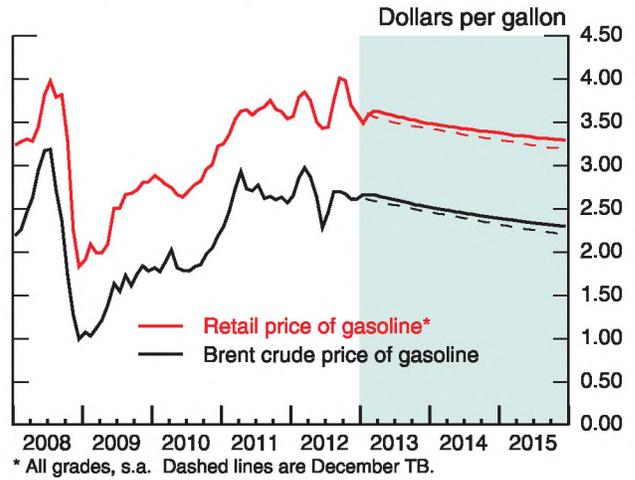
Exhibit 4

### Inflation

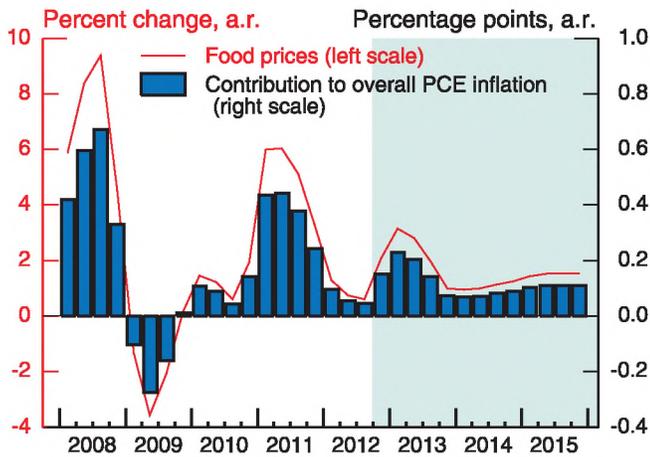
#### PCE Prices



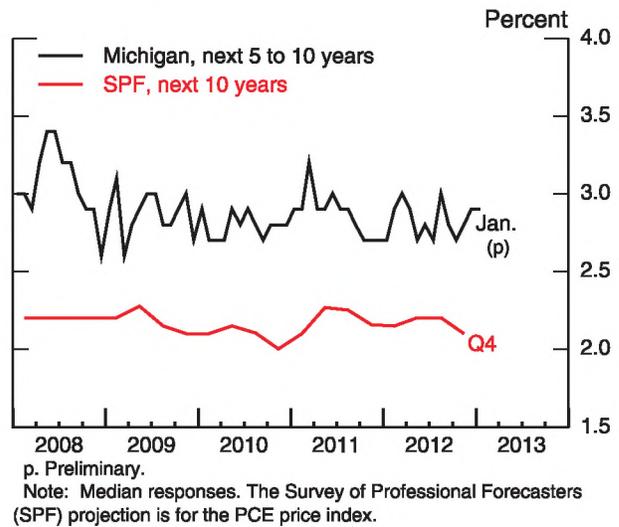
#### Crude Oil and Gasoline Prices



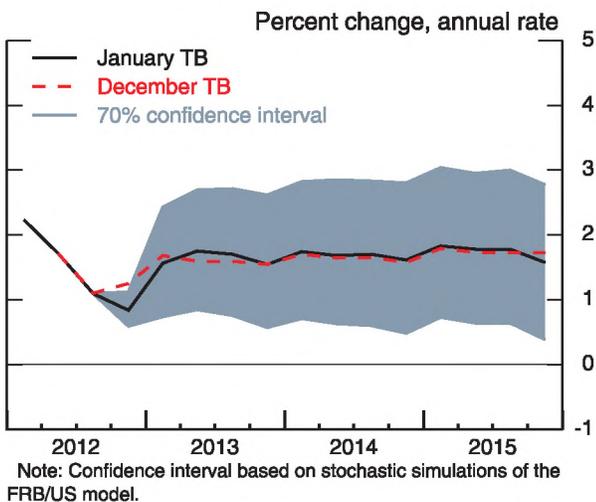
#### Food Prices



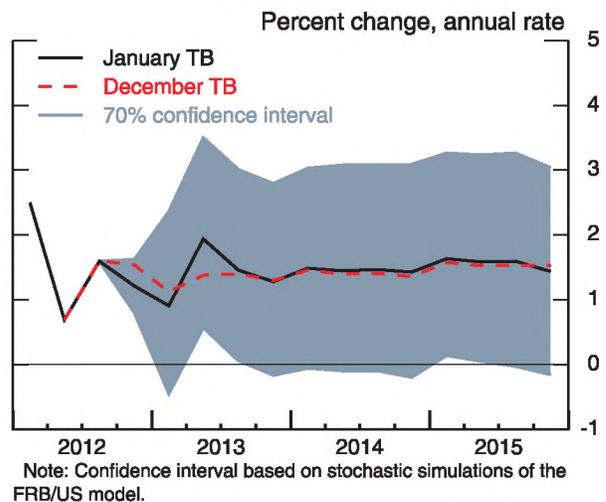
#### Inflation Expectations



#### Core PCE Price Forecast



#### PCE Price Forecast



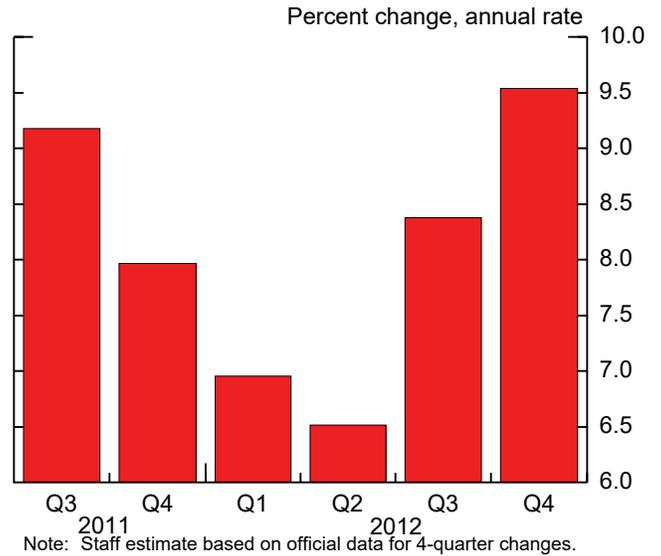
Class II FOMC - Restricted (FR)

Exhibit 5

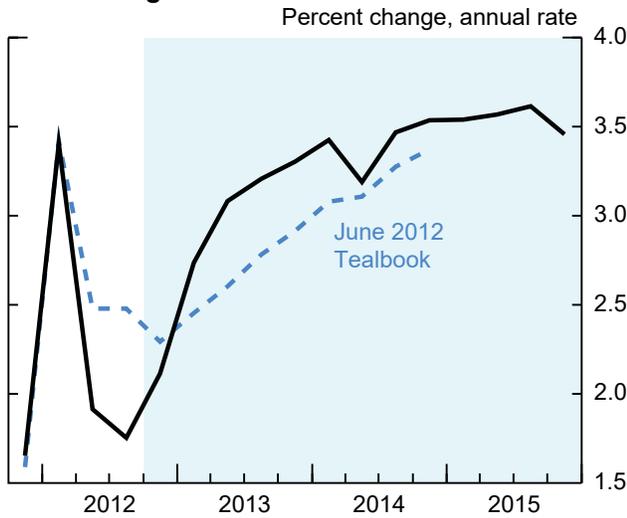
**Euro-Area Policy Actions**

- Draghi's "Save the euro" speech and the Outright Monetary Transactions program
- Spain's steps to bolster fiscal and banking health
- Additional aid for Greece
- Progress on a single supervisory mechanism

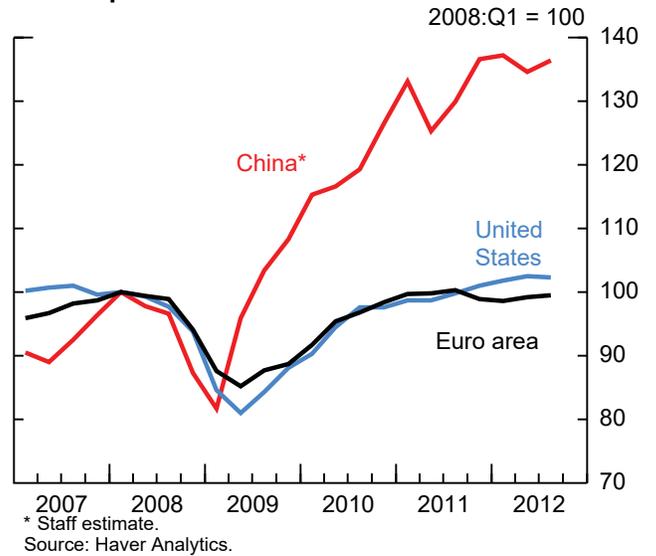
**Chinese Real GDP**



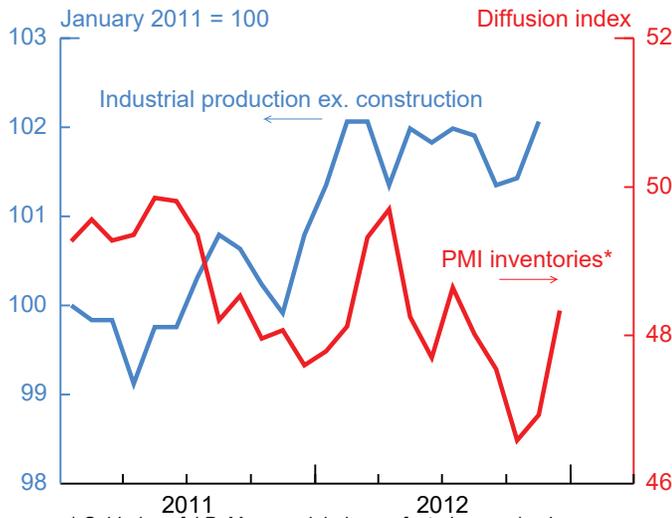
**Total Foreign Real GDP**



**Real Imports**

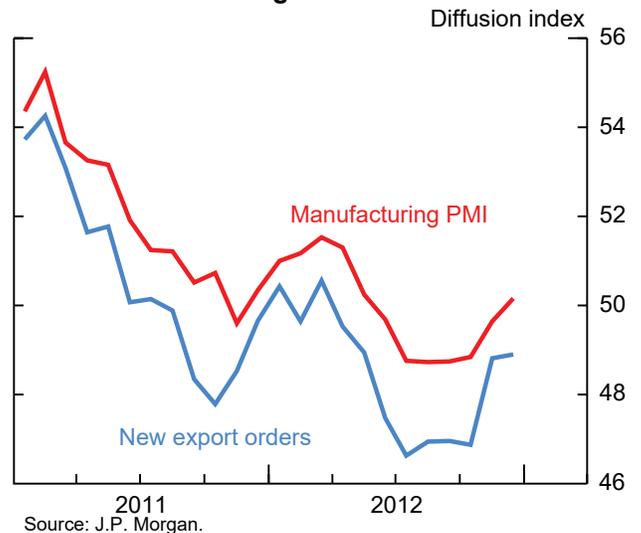


**Global Production and Inventories**



\* Subindex of J.P. Morgan global manufacturing purchasing managers index (PMI). Source: For industrial production, Netherlands Bureau for Economic Policy Analysis; for PMI inventories, J.P. Morgan.

**Global Manufacturing PMI**



Class II FOMC - Restricted (FR)

Exhibit 6

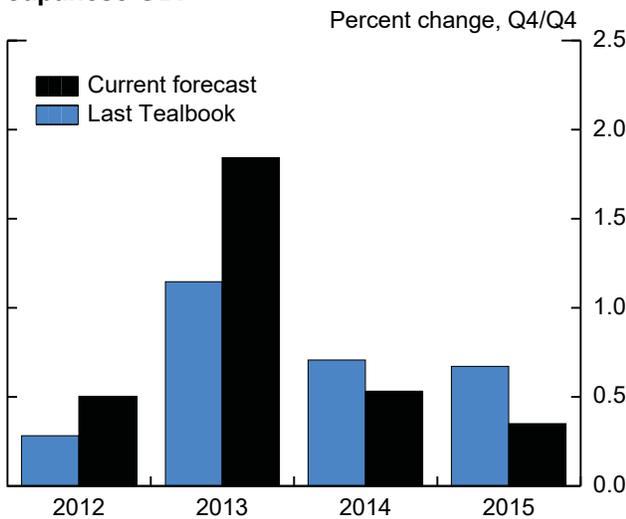
**Real GDP\***

Percent

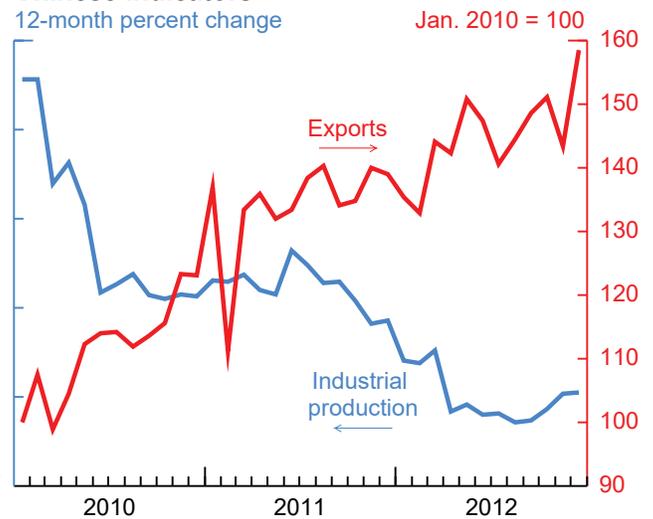
	2012			2013 <sup>f</sup>		2014 <sup>f</sup>	2015 <sup>f</sup>
	Q1	Q2-Q3	Q4 <sup>e</sup>	Q1	Q2-Q4		
<b>1. Total foreign GDP</b>	<b>3.4</b>	<b>1.8</b>	<b>2.1</b>	<b>2.7</b>	<b>3.2</b>	<b>3.4</b>	<b>3.5</b>
2. <i>December Tealbook</i>	3.4	1.8	2.1	2.5	3.0	3.4	3.5
<b>3. Advanced foreign economies</b>	<b>1.5</b>	<b>0.2</b>	<b>0.3</b>	<b>1.0</b>	<b>1.6</b>	<b>2.0</b>	<b>2.3</b>
4. Euro area	-0.1	-0.3	-1.2	-0.5	0.8	1.5	2.0
5. Japan	5.7	-3.5	0.2	1.4	2.0	0.5	0.3
<b>6. Emerging market economies</b>	<b>5.4</b>	<b>3.3</b>	<b>4.0</b>	<b>4.5</b>	<b>4.8</b>	<b>4.8</b>	<b>4.8</b>
7. China	7.0	8.4	9.5	8.8	8.3	8.2	8.0
8. EME Asia ex. China	5.8	2.7	3.4	3.9	4.5	4.7	4.8
9. Latin America	4.6	2.0	2.6	3.6	3.9	3.8	3.8

\* GDP aggregates weighted by shares of U.S. merchandise exports.  
 e Staff estimate. f Staff forecast.

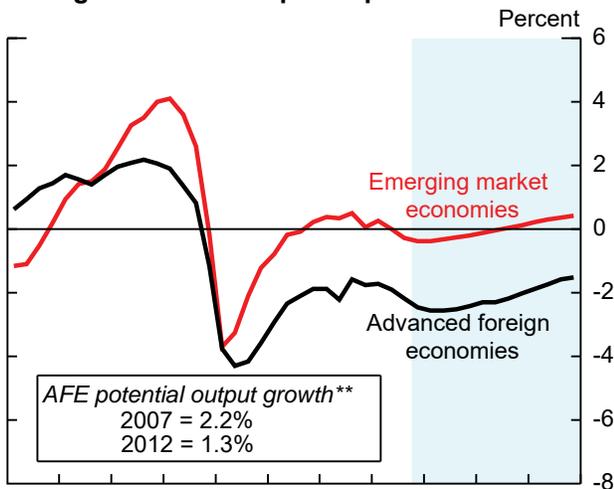
**Japanese GDP**



**Chinese Indicators**



**Foreign Potential Output Gaps\***



\* ((Level of actual output - level of potential)/level of potential) \* 100.  
 \*\* Q4/Q4 percent change.

**Revisions to AFE Potential**

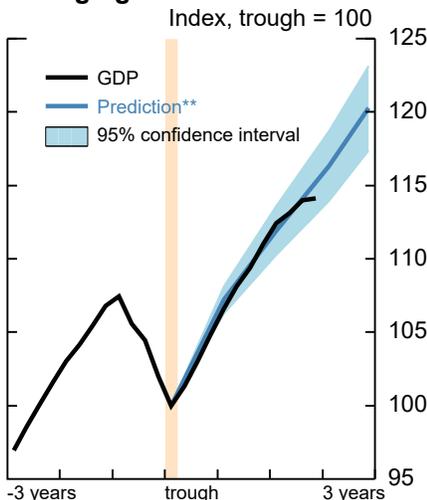
- Research finds level of potential permanently reduced after banking and financial crises.
- In part, because of
  - significantly reduced capital accumulation
  - sectoral shifts increase structural unemployment and reduce labor force participation.

# Predicted Recoveries

## Methodology

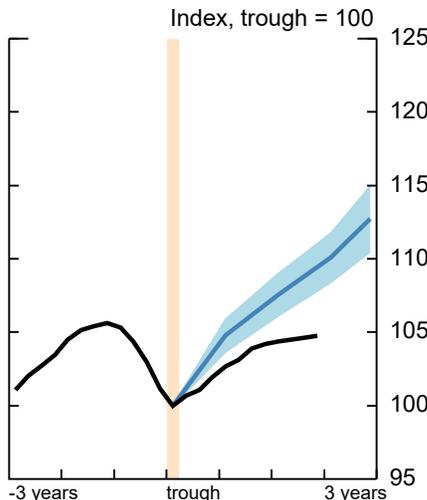
- We look at the experience of a large number of countries over the past 40 years during recessions and recoveries.
- Using regression analysis, we find that:
  - Deeper recessions are typically associated with faster recoveries and
  - Longer recessions tend to be associated with slower recoveries.
- Using these relationships, we can compare a predicted recovery path, based on the depth and duration of the recessions following the Global Financial Crisis, with what actually occurred.

### Emerging Market Economies\*



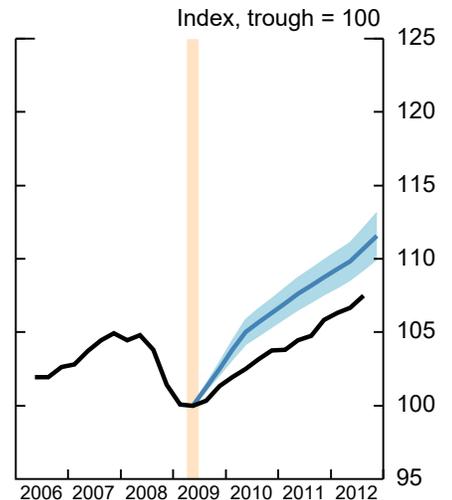
\* Average of 23 EME recessions associated with the Global Financial Crisis.

### Advanced Economies\*

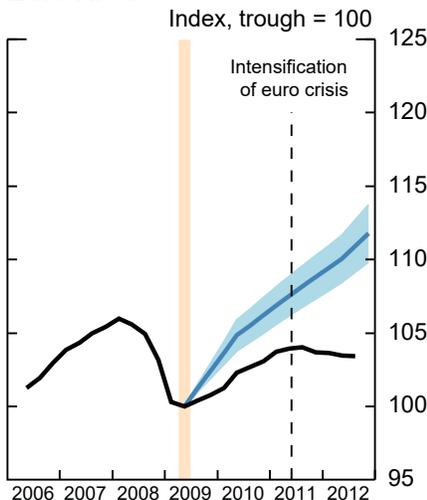


\* Average of 20 AE recessions associated with the Global Financial Crisis.

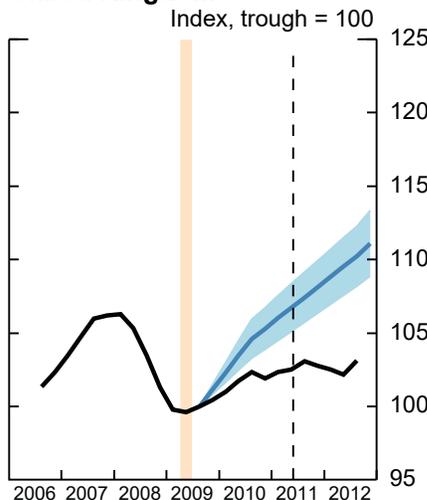
### United States



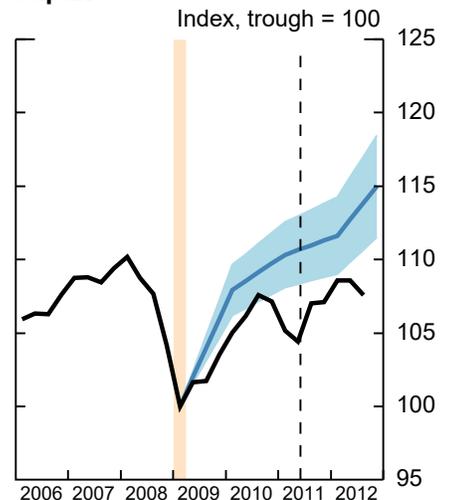
### Euro Area



### United Kingdom



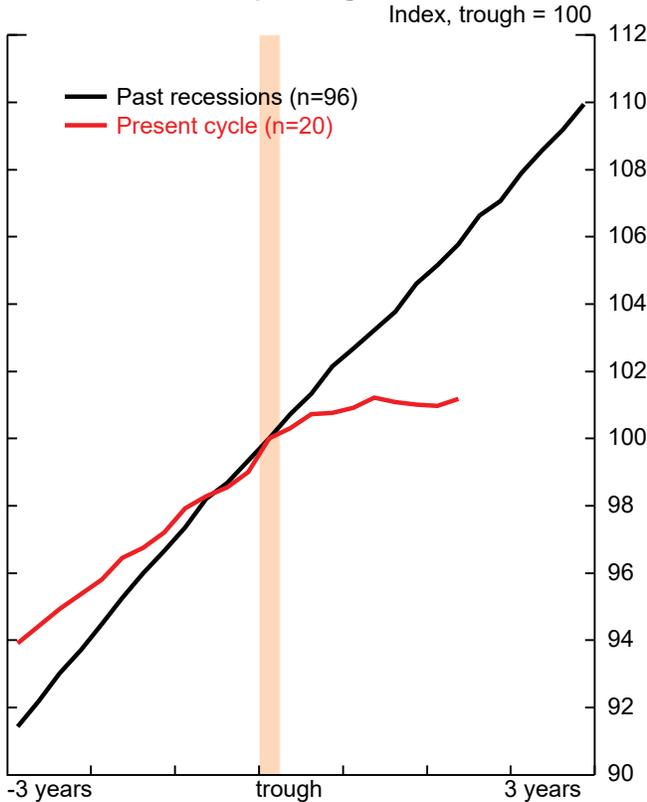
### Japan



\*\* Regression predicts indexed GDP levels at 4, 8, 12, and 16 quarters past the trough, based on the observed depth and duration of the recessions of advanced economies (n=118).

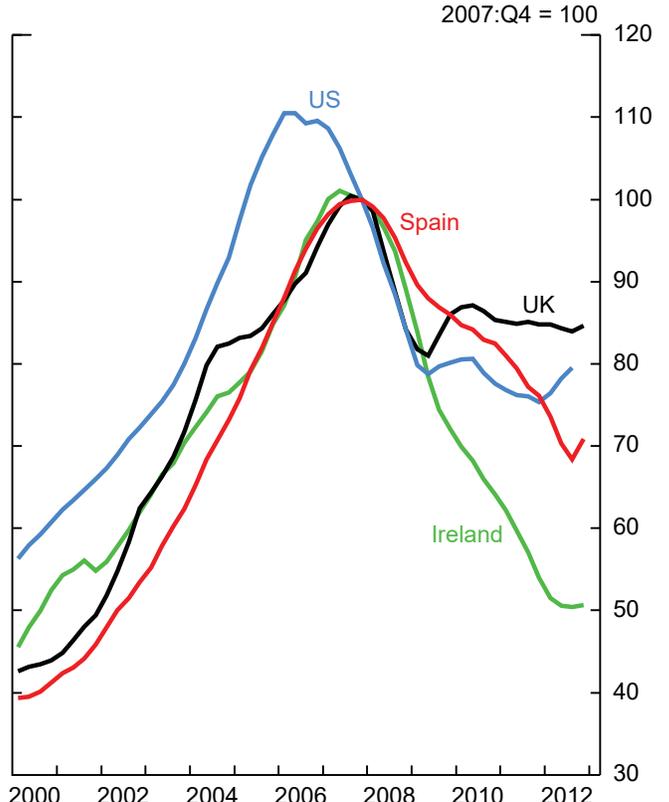
# Additional Sources of Economic Weakness in Advanced Economies

**Real Government Spending in AEs\***



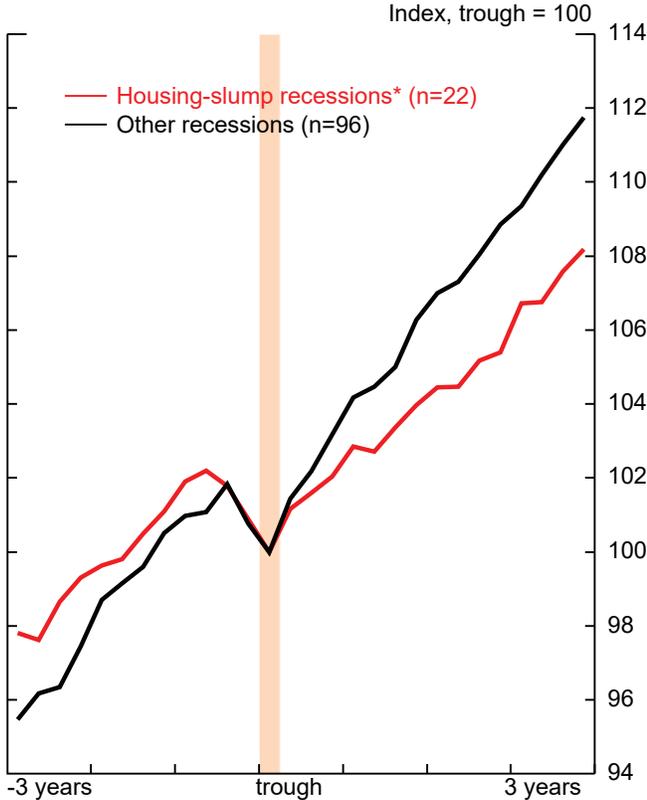
\* Average real government final consumption expenditure.  
Source: Organisation for Economic Cooperation and Development.

**Nominal House Prices**



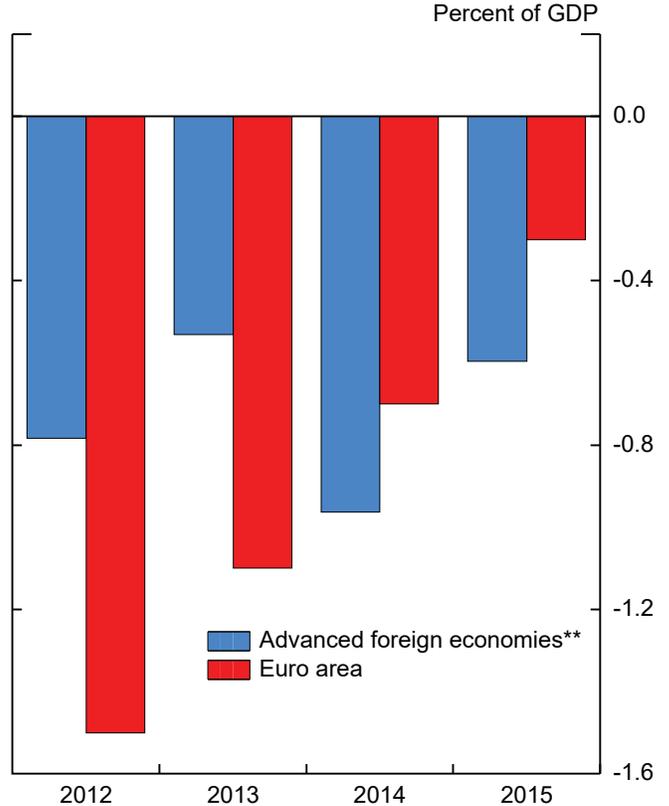
Source: CoreLogic (US), IMIE (Spain), Haver Analytics (UK), OECD (Ireland).

**GDP During Advanced Economies Recoveries**



\* Housing-slump recessions coinciding with a decline in real house prices above the 75th percentile.  
Source: National sources.

**Fiscal Impulse\***

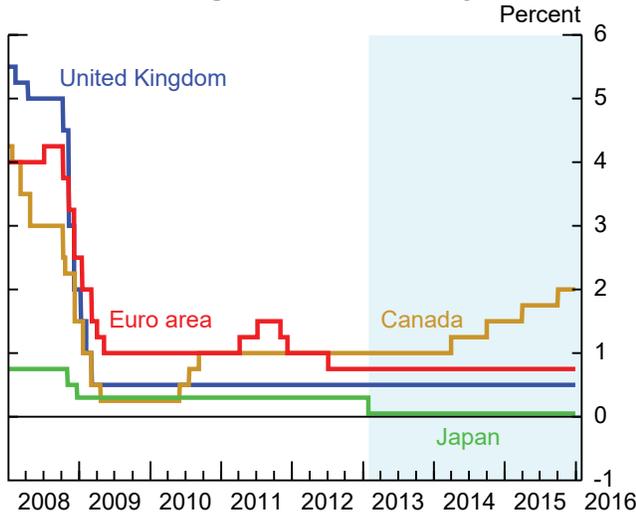


\* Change in the staff-estimated structural deficit.  
\*\* Includes: Canada, euro area, Japan, and United Kingdom. Weighted by GDP at Purchasing Power Parity.

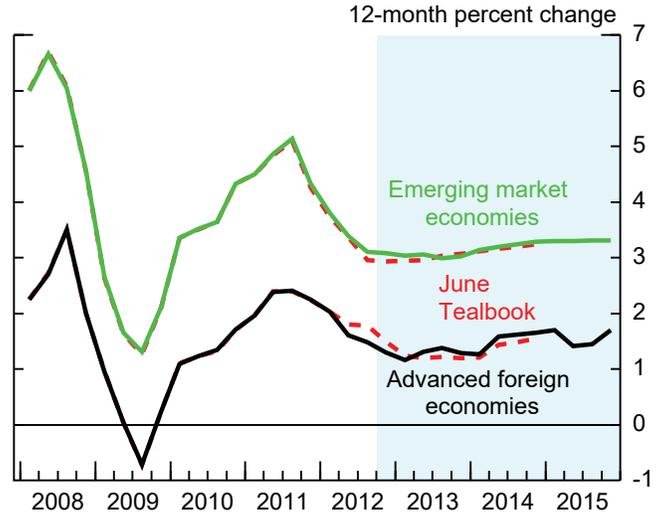
Class II FOMC - Restricted (FR)

Exhibit 9 (Last)

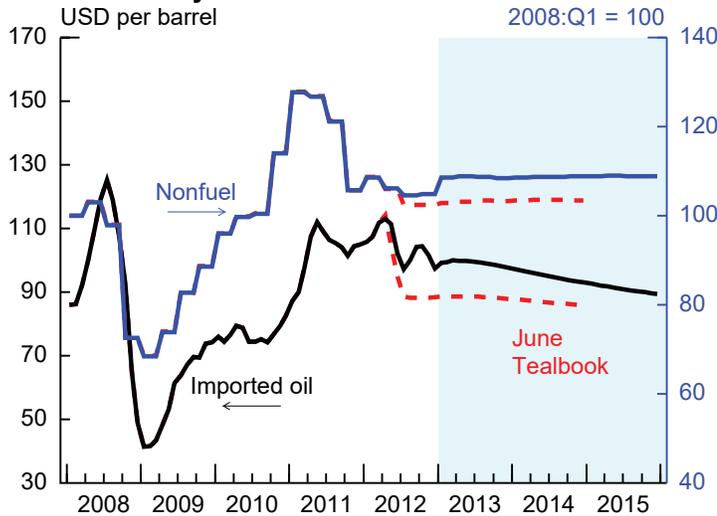
**Advanced Foreign Economies Policy Rates**



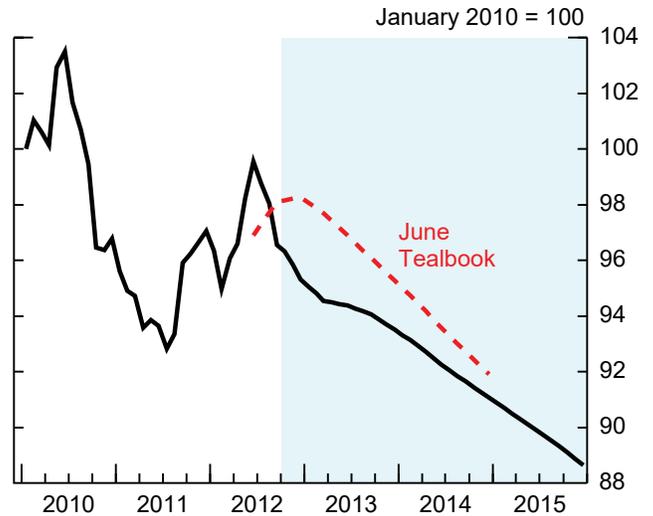
**Consumer Price Index**



**Commodity Price Outlook**



**Broad Real Dollar**



**Trade in Real Goods and Services**

	2012			2013 <sup>f</sup>			2014 <sup>f</sup>	2015 <sup>f</sup>
	H1	Q3	Q4 <sup>e</sup>	Q1	Q2	H2		
<b>Annualized percent change</b>								
1. Exports	4.8	1.9	-4.5	5.2	5.3	5.3	6.1	7.1
2. <i>June Tealbook</i>	4.0	3.9	2.9	3.3	3.5	4.0	5.5	<i>n.a.</i>
3. Imports	2.9	-0.6	-2.4	3.0	4.4	4.1	4.8	5.3
4. <i>June Tealbook</i>	3.7	5.6	4.4	3.6	4.4	4.3	4.5	<i>n.a.</i>
<b>Contribution to real GDP growth (percentage points, a.r.)</b>								
5. Net Exports	0.1	0.4	-0.2	0.2	-0.0	0.0	0.0	0.1
6. <i>June Tealbook</i>	-0.1	-0.4	-0.3	-0.2	-0.3	-0.2	-0.0	<i>n.a.</i>

e Staff estimate. f Staff forecast.  
n.a. Not available.

**Appendix 3: Materials used by Mr. Wilcox**

## Gross Domestic Product

(percent change at an annual rate)

	2012-Q3	2012-Q4	
	Final	Tealbook	Advance
<b>Real GDP</b>	<b>3.1</b>	<b>0.1</b>	<b>-0.1</b>
Final Sales	2.4	1.5	1.1
Personal Consumption	1.6	2.2	2.2
Durables	8.9	12.0	13.9
Nondurables	1.2	0.5	0.4
Services	0.6	1.2	0.9
Nonresidential Structures	0.0	-0.4	-1.1
Equipment and Software	-2.6	13.8	12.4
Residential Investment	13.5	13.1	15.3
Federal	9.5	-12.4	-15.0
State and Local	0.3	-0.8	-0.7
Exports	1.9	-4.5	-5.7
Imports	-0.6	-2.4	-3.2
<u>Level in chained 2005 dollars:</u>			
Change in nonfarm business inventories	88.2	43.9	43.8
Change in farm inventories	-19.2	-19.2	-16.7
Net Exports	-395.2	-402.6	-404.0
<u>Price Indexes:</u>			
Total PCE Chain Price Index	1.6	1.2	1.2
Core PCE Chain Price Index	1.1	0.8	0.9
Core Market-based PCE Price Index	1.3	0.8	0.8

**Appendix 4: Materials used by Mr. English**

**Class I FOMC – Restricted Controlled (FR)**

*Material for*

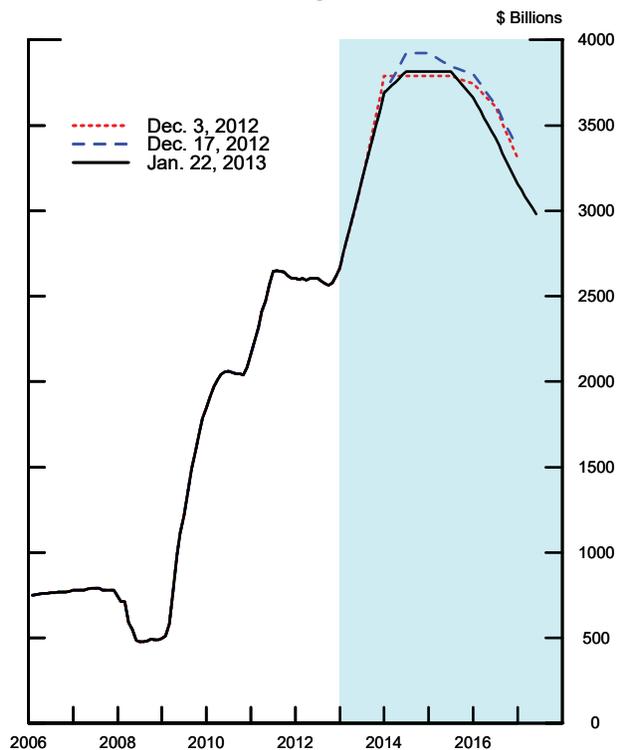
**FOMC Briefing on Monetary Policy Alternatives**

**Bill English**

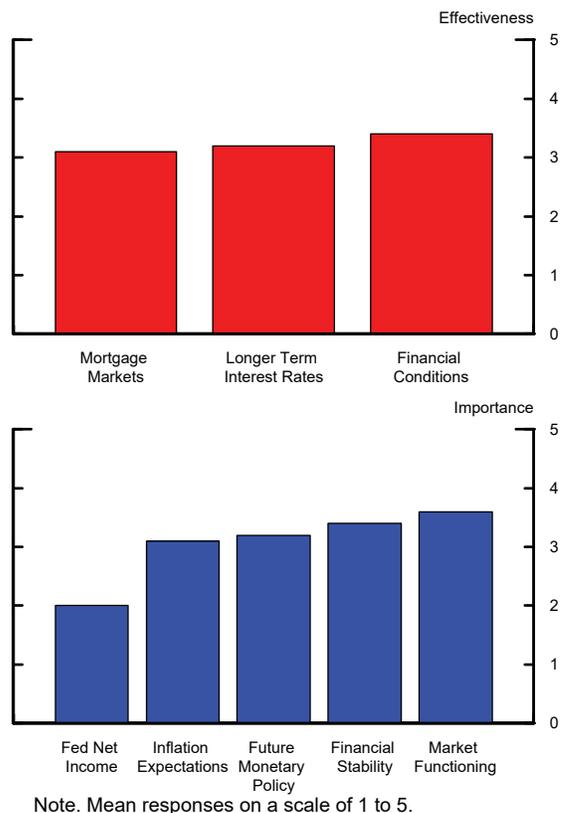
**January 29-30, 2013**

### Primary Dealer Balance Sheet Expectations

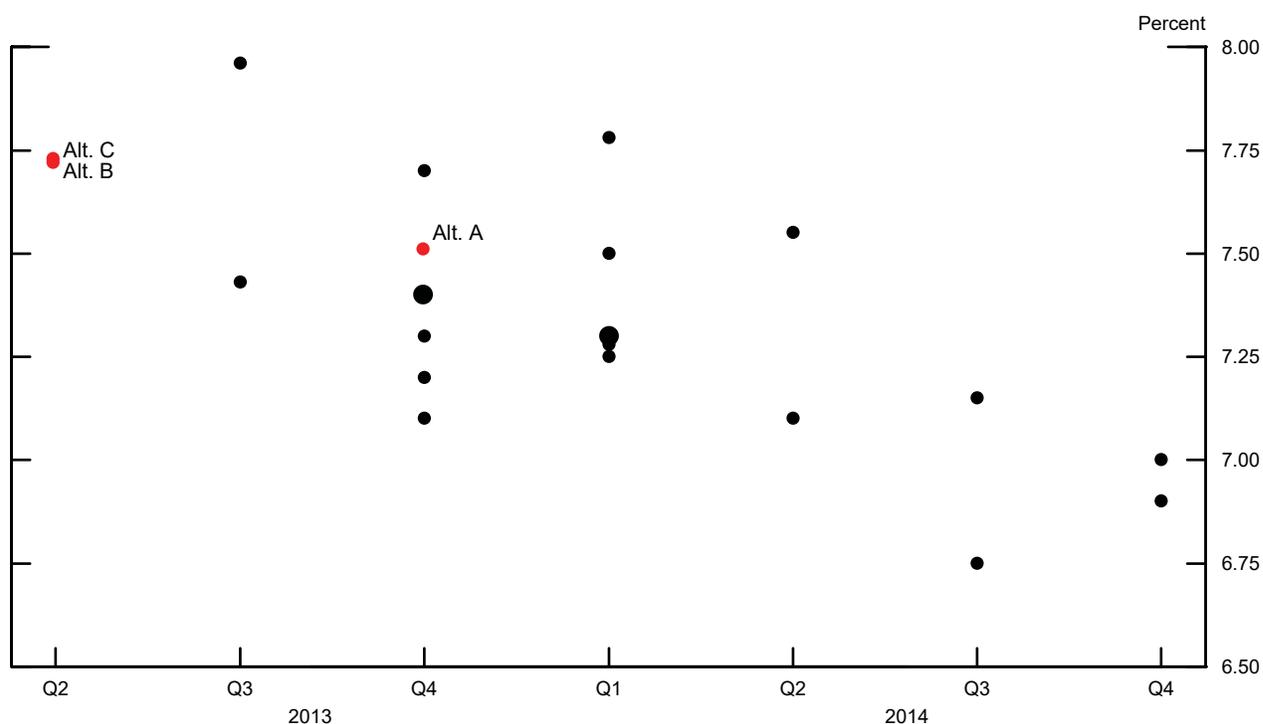
Primary Dealer Expectations for SOMA Securities Holdings



Dealer Assessments of Benefits and Costs of Asset Purchases



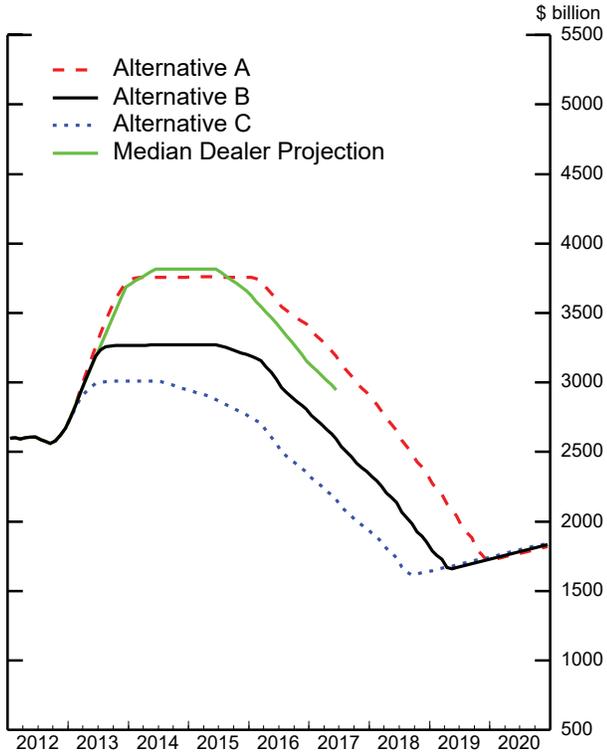
Modal Unemployment Rate at Expected End of Security Purchases: Dealer Survey



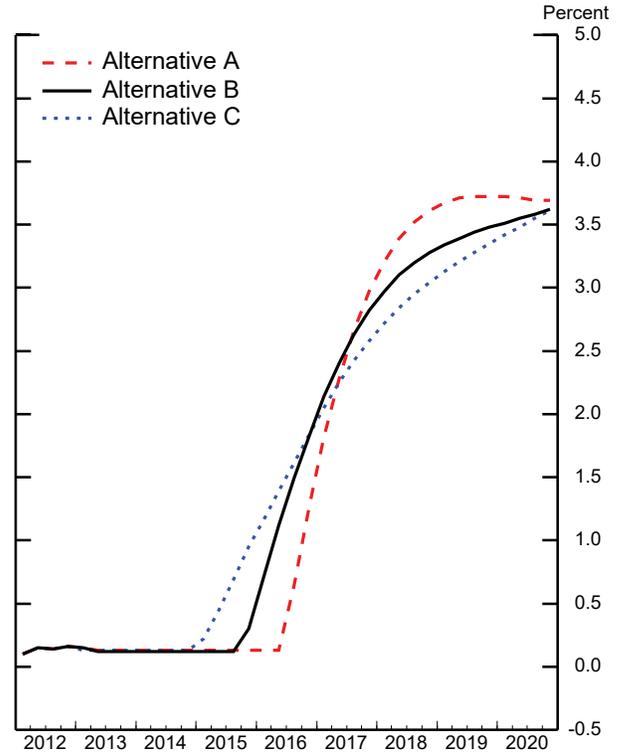
Note. Primary dealer unemployment rates are interpolated from average Q4 values reported in the survey. Not plotted is one primary dealer who did not report an unemployment rate for a sufficiently long horizon. A larger dot denotes two observations.

### Alternative Monetary Policy Scenarios

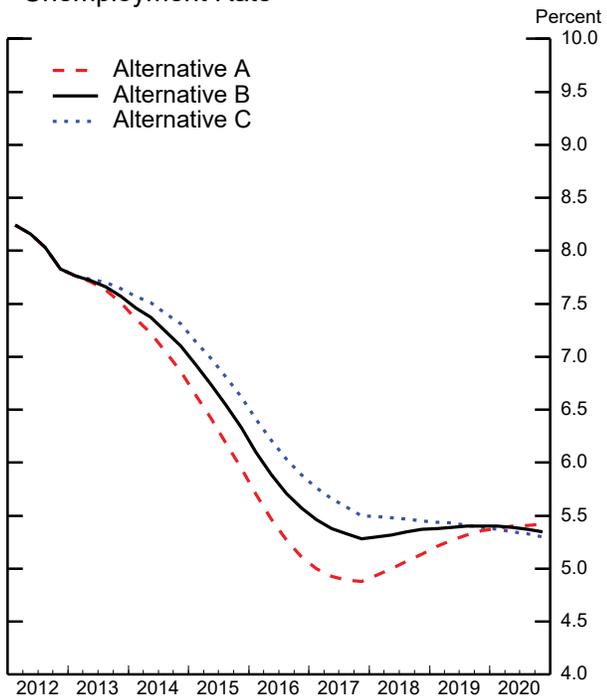
Total Projected SOMA Security Holdings



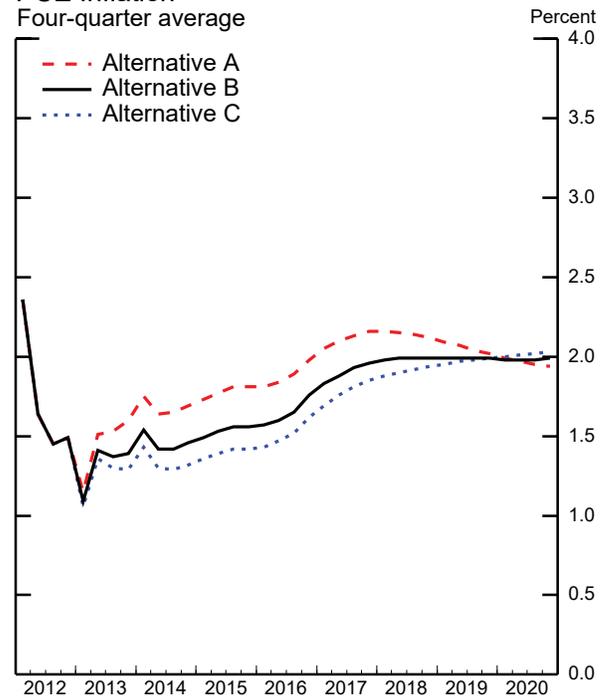
Federal Funds Rate



Unemployment Rate



PCE Inflation  
Four-quarter average



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**DECEMBER 2012 FOMC STATEMENT**

1. Information received since the Federal Open Market Committee met in October suggests that economic activity and employment have continued to expand at a moderate pace in recent months, apart from weather-related disruptions. Although the unemployment rate has declined somewhat since the summer, it remains elevated. Household spending has continued to advance, and the housing sector has shown further signs of improvement, but growth in business fixed investment has slowed. Inflation has been running somewhat below the Committee's longer-run objective, apart from temporary variations that largely reflect fluctuations in energy prices. Longer-term inflation expectations have remained stable.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee remains concerned that, without sufficient 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 will run at or below its 2 percent objective.
3. 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 will continue purchasing additional agency mortgage-backed securities at a pace of \$40 billion per month. The Committee also will purchase longer-term Treasury securities after its program to extend the average maturity of its holdings of Treasury securities is completed at the end of the year, initially at a pace of \$45 billion per month. The Committee 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 and, in January, will resume rolling over maturing Treasury securities at auction. Taken together, these actions should maintain downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.
4. 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 Treasury and agency mortgage-backed securities, 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.
5. 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 asset purchase program ends and the economic recovery strengthens. In particular, the Committee decided to keep the target range for the federal funds rate at 0 to ¼ percent and currently anticipates that this exceptionally low range for the federal funds rate will be appropriate at least as

long as the unemployment rate remains above 6½ percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored. The Committee views these thresholds as consistent with its earlier date-based guidance. In determining how long to maintain a highly accommodative stance of monetary policy, the Committee will also consider other information, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments. When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with its longer-run goals of maximum employment and inflation of 2 percent.

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## JANUARY 2013 FOMC STATEMENT—ALTERNATIVE A

1. Information received since the Federal Open Market Committee met in ~~October~~ **December** | **suggests** | **indicates** | that **growth in** economic activity and employment have continued to expand at a moderate pace | **paused** | **slowed** | in recent months, ~~apart from~~ **in large part because of** weather-related disruptions **and other transitory factors**. **Employment has continued to expand at a moderate pace but** Although the unemployment rate has declined somewhat since the summer, it remains elevated. Household spending has continued to **advance**, and the housing sector has shown further signs of improvement, ~~but growth in business fixed investment has slowed~~. Inflation has been running somewhat below the Committee's longer-run objective, apart from temporary variations that largely reflect fluctuations in energy prices. Longer-term inflation expectations have remained stable.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee ~~remains concerned~~ **judges** that, without sufficient **additional** policy accommodation, economic growth might **likely would** not be strong enough to generate sustained improvement in labor market conditions. Furthermore, strains in global financial markets **and unresolved fiscal issues** continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term likely will run ~~at or~~ **somewhat** below its 2 percent objective.
3. 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 will ~~continue purchasing additional~~ **increase the pace at which it purchases** agency mortgage-backed securities at a pace of \$40 **to \$45** billion per month. The Committee also will **increase the pace at which it purchases** longer-term Treasury securities ~~after its program to extend the average maturity of its holdings of Treasury securities is completed at the end of the year, initially at a pace of \$45~~ **to \$55** billion per month. The Committee 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 and, ~~in January, will resume~~ **of** rolling over maturing Treasury securities at auction. Taken together, these actions **will increase the Committee's holdings of longer-term securities by \$100 billion per month and** should ~~maintain~~ **put additional** downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.
4. 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 Treasury and agency mortgage-backed securities, 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.

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5. 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 asset purchase program ends and the economic recovery strengthens. In particular, the Committee decided to keep the target range for the federal funds rate at 0 to  $\frac{1}{4}$  percent and currently anticipates that this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above ~~6 $\frac{1}{2}$~~  **5 $\frac{1}{2}$**  percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored. ~~The Committee views these thresholds as consistent with its earlier date-based guidance.~~ In determining how long to maintain a highly accommodative stance of monetary policy, the Committee will also consider other information, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments. When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with its longer-run goals of maximum employment and inflation of 2 percent.

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**JANUARY 2013 FOMC STATEMENT—ALTERNATIVE B**

1. Information received since the Federal Open Market Committee met in ~~October~~ **December** | **suggests** | **indicates** | that **growth in** economic activity and employment have continued to expand at a moderate pace | **paused** | **slowed** | in recent months, ~~apart from~~ **in large part because of** weather-related disruptions **and other transitory factors**. **Employment has continued to expand at a moderate pace but** Although the unemployment rate has declined somewhat since the summer, it remains elevated. Household spending has continued to **and business fixed investment** advanced, and the housing sector has shown further signs of improvement, ~~but~~ **growth in business fixed investment has slowed**. Inflation has been running somewhat below the Committee's longer-run objective, apart from temporary variations that largely reflect fluctuations in energy prices. Longer-term inflation expectations have remained stable.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee ~~remains concerned~~ **expects** that, ~~without~~ **with** sufficient policy accommodation, economic growth ~~might not be strong enough to generate sustained improvement in labor market conditions~~ **will proceed at a moderate pace and the unemployment rate will gradually decline toward levels the Committee judges consistent with its dual mandate**. Furthermore, **Although** strains in global financial markets ~~continue to pose~~ **have eased somewhat, the Committee continues to see** significant downside risks to the economic outlook | **, in part reflecting unresolved fiscal issues** |. The Committee also anticipates that inflation over the medium term likely will run at or below its 2 percent objective.
3. 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 will continue purchasing additional agency mortgage-backed securities at a pace of \$40 billion per month **and**. ~~The Committee also will purchase longer-term Treasury securities after its program to extend the average maturity of its holdings of Treasury securities is completed at the end of the year, initially~~ at a pace of \$45 billion per month. The Committee 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 and, ~~in January, will resume~~ **of** rolling over maturing Treasury securities at auction. Taken together, these actions should maintain downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.
4. 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 Treasury and agency mortgage-backed securities, 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.

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5. 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 asset purchase program ends and the economic recovery strengthens. In particular, the Committee decided to keep the target range for the federal funds rate at 0 to  $\frac{1}{4}$  percent and currently anticipates that this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above  $6\frac{1}{2}$  percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored. ~~The Committee views these thresholds as consistent with its earlier date-based guidance.~~ In determining how long to maintain a highly accommodative stance of monetary policy, the Committee will also consider other information, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments. When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with its longer-run goals of maximum employment and inflation of 2 percent.

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**JANUARY 2013 FOMC STATEMENT—ALTERNATIVE C**

1. Information received since the Federal Open Market Committee met in ~~October~~ **December** | **suggests** | **indicates** | that **growth in** economic activity and employment have continued to expand at a moderate pace | **paused** | **slowed** | in recent months, apart from **because of** weather-related disruptions **and other transitory factors**. Although the unemployment rate **remains elevated, it** has declined somewhat since the summer, it remains elevated **substantially during the past year**. Household spending has continued to **and business fixed investment** advanced, and the housing sector has shown further signs of improvement, but growth in business fixed investment has slowed. Inflation has been running somewhat below the Committee's longer-run objective, apart from temporary variations that largely reflect fluctuations in energy prices. Longer-term inflation expectations have remained stable.
  
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. ~~The Committee remains concerned that, without sufficient policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions.~~ **The Committee expects that economic growth will return to a moderate pace and that the unemployment rate will decline toward levels the Committee judges consistent with its dual mandate.** Furthermore, strains in global financial markets ~~continue to pose significant~~ **and the associated** downside risks to the economic outlook **appear to have diminished**. The Committee also anticipates that inflation over the medium term likely will run at or below **close to** its 2 percent objective.
  
3. **In light of the outlook for labor markets and inflation, and its current assessment of the likely efficacy and costs of further asset purchases, the Committee decided to reduce the pace of its asset purchases. In particular,** ~~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 will continue purchasing~~ **purchase** additional agency mortgage-backed securities at a pace of \$40 **\$20** billion per month **and** ~~The Committee also will purchase longer-term Treasury securities after its program to extend the average maturity of its holdings of Treasury securities is completed at the end of the year, initially at a pace of \$45~~ **\$25** billion per month. The Committee ~~is maintaining its existing policy of~~ **will continue to** reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and, ~~in January, will resume~~ **to** rolling over maturing Treasury securities at auction. Taken together, these actions **will increase the Committee's holdings of longer-term securities and** should maintain downward pressure on longer-term interest rates, support mortgage markets, and help to ~~make~~ **keep** broader financial conditions ~~more~~ accommodative.

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4. The Committee will closely monitor incoming information on economic and financial developments in coming months. **If the economy develops as anticipated, the Committee expects to further reduce the pace of its asset purchases in coming months and to bring them to an end by midyear. However, if the outlook for the labor market does not improve substantially as expected or if inflation is projected to be appreciably below 2 percent,** the Committee ~~will continue~~ **is prepared to maintain or increase the pace of** its purchases of Treasury and agency mortgage-backed **longer-term** securities, 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.
  
  5. 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 asset purchase program ends and the economic recovery strengthens. In particular, the Committee decided to keep the target range for the federal funds rate at 0 to ¼ percent and currently anticipates that this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above 6½ percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored. ~~The Committee views these thresholds as consistent with its earlier date-based guidance.~~ In determining how long to maintain a highly accommodative stance of monetary policy, the Committee will also consider other information, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments. When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with its longer-run goals of maximum employment and inflation of 2 percent.

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**DECEMBER 2012 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  $\frac{1}{4}$  percent. The Committee directs the Desk to complete 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. Following the completion of this program, the Committee directs the Desk to resume its policy of rolling over maturing Treasury securities into new issues. From the beginning of January, the Desk is directed to purchase longer-term Treasury securities at a pace of about \$45 billion per month. 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 continue 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.

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**DIRECTIVE FOR JANUARY 2013—ALTERNATIVE A**

**Consistent with its statutory mandate**, the Federal Open Market Committee seeks monetary and financial conditions that will foster **maximum employment** and promote sustainable growth in output price stability. To further its long-run objectives **In particular**, 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 ~~complete 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~~ **undertake open market operations as necessary to maintain such conditions**. From the beginning of January **Beginning February 1**, the Desk is directed to **increase the pace of purchases of** longer-term Treasury securities at a pace of ~~to~~ about \$45 **\$55** billion per month. The Desk is also directed to continue purchasing **and to increase the pace of purchases of** agency mortgage-backed securities at a pace of ~~to~~ about \$40 **\$45** billion per month. The Committee **also** 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. ~~Following the completion of this program,~~ The Committee directs the Desk to ~~resume~~ **maintain** its policy of rolling over maturing Treasury securities into new issues **and** ~~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 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.

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**DIRECTIVE FOR JANUARY 2013—ALTERNATIVE B**

**Consistent with its statutory mandate**, the Federal Open Market Committee seeks monetary and financial conditions that will foster **maximum employment** and promote sustainable growth in output price stability. To further its long-run objectives **In particular**, 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 ~~complete 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~~ **undertake open market operations as necessary to maintain such conditions**. From the beginning of January, The Desk is directed to **continue** purchasing longer-term Treasury securities at a pace of about \$45 billion per month **and** ~~The Desk is also directed to continue purchasing agency mortgage-backed securities at a pace of about \$40 billion per month.~~ The Committee **also** 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. ~~Following the completion of this program~~ The Committee directs the Desk to ~~resume~~ **maintain** its policy of rolling over maturing Treasury securities into new issues **and** ~~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 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.

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**DIRECTIVE FOR JANUARY 2013—ALTERNATIVE C**

**Consistent with its statutory mandate**, the Federal Open Market Committee seeks monetary and financial conditions that will foster **maximum employment** and promote sustainable growth in output price stability. To further its long-run objectives **In particular**, 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 complete 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 **undertake open market operations as necessary to maintain such conditions**. From the beginning of January **Beginning February 1**, the Desk is directed to **reduce the pace of purchases of** longer-term Treasury securities at a pace of **to** about \$45 **\$25** billion per month. The Desk is also directed to continue purchasing **and to reduce the pace of purchases of** agency mortgage-backed securities at a pace of **to** about \$40 **\$20** billion per month. The Committee **also** 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. ~~Following the completion of this program,~~ The Committee directs the Desk to ~~resume~~ **maintain** its policy of rolling over maturing Treasury securities into new issues **and** ~~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 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.

**Appendix 5: Materials used by Ms. Tevlin**

**Class I FOMC – Restricted Controlled (FR)**

*Material for Briefing on*

**Potential Enhancements to the  
Summary of Economic Projections**

**Stacey Tevlin  
January 30, 2013**

## Exhibit 1

**Possible Enhancements to the Survey of Economic Projections**

The current version of the Survey of Economic Projections:

- Does a good job conveying the diversity of views among participants.
- Does not necessarily illuminate the "collective" view of future economic conditions and appropriate policy.
- Provides almost no information on the likely future course of the asset purchase program.
- Does not prominently display information on the uncertain nature of the outlook.

In our memo, we considered several enhancements:

- Publish medians (possibly for some sub-set of participants)
- Distinguish members' (or non-dissenting members') policy assessments
- Include fan charts
- Provide additional information on the Federal Reserve balance sheet

**Publishing Medians**

- Medians are a simple statistic to summarize the "center" of any collection of forecasts (e.g. participants, members, non-dissenting members).
- Medians of non-dissenting members would provide the best picture of the thinking underlying the policy decisions.
- Internal coherence is not guaranteed by medians, but this would be less of a problem for a group with more homogenous views.
- Operationally, the differences in medians across groups were generally not large, and the choice may be of second-order importance.
- Medians were quite robust to changes in membership.



## Exhibit 3

**Additional Enhancements****Fan charts:**

- Convey uncertainty.
- Put forecast differences into perspective.
- Display the likely accuracy of the projections better than the table.

**Fan charts require a decision on method:**

- Historical forecast accuracy
- Stochastic simulations
- Individual Committee assessments

**Balance Sheet Issues****Clarification on these issues is difficult because:**

- The Committee does not hold a common view regarding costs, efficacy, tradeoff.
- The issues are complicated.
- The asset-purchase program has many dimensions, which further hinders both agreement and clear explanation.

**Some possible enhancements to communication include:**

- New questions could be added to the SEP.
- The minutes could be used to communicate the Committee's views.
- The Chairman and others could give speeches and testimonies to clarify issues.

## Exhibit 4 - Last Exhibit

**Questions for the SEP Enhancements Discussion**

1. Should the medians of projections be presented in the SEP? If so, should the SEP show the medians of the projections of all participants, of the voting members, and/or of the members voting for the policy decision at a given meeting?
2. Should the figure summarizing participants' assessments of appropriate monetary policy distinguish between the projections of voters and other participants, or between voters supporting the policy decision and other participants?
3. Should the SEP illustrate uncertainty about future real activity and inflation by publishing fan charts centered on the median of projections chosen in question 1 above? If so, what method should be used to construct them – historical forecast errors, stochastic simulations, or participant-supplied probability estimates? If stochastic simulations are used, should they be based on FRB/US alone or on several different models?
4. Should the SEP report fan charts for the federal funds rate? If the charts are based on stochastic simulations, what policy rule should be used?
5. Should the SEP provide information about participants' expectations for the evolution of the FOMC's balance sheet policies? If so, what specific information should be provided in the SEP? If you do not consider the SEP a suitable vehicle for communicating participants' expectations concerning balance sheet policies, is there another means for communicating these expectations that you would suggest?