

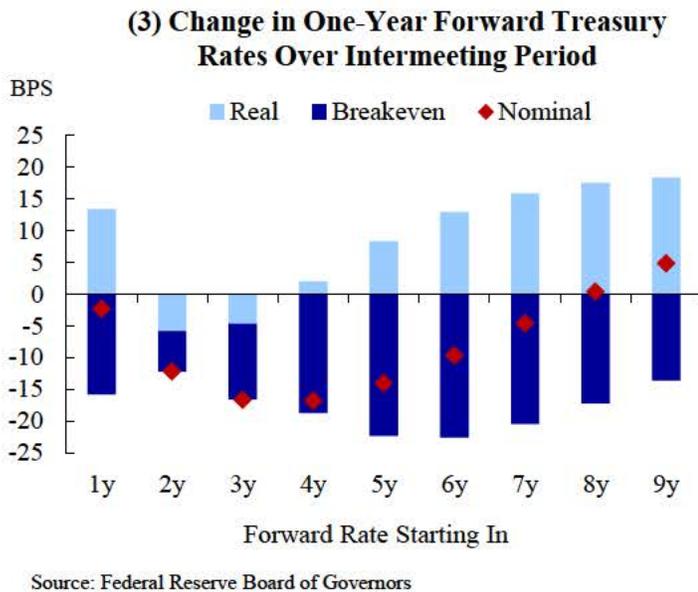
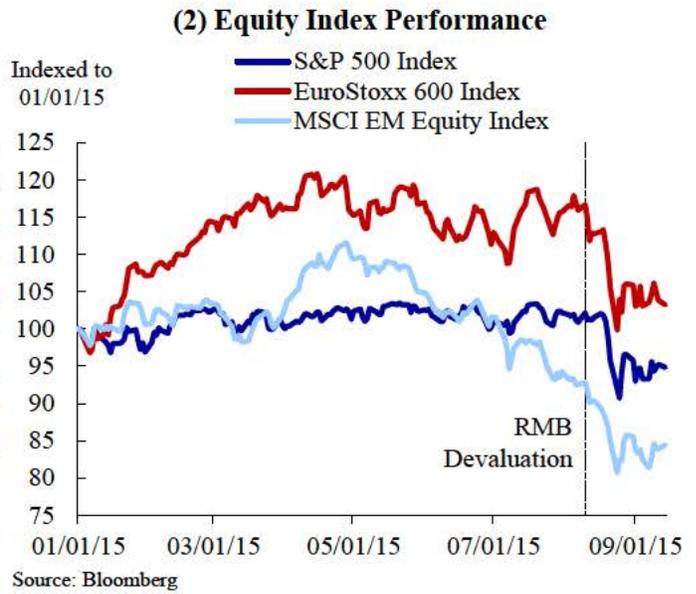
**Appendix 1: Materials used by Mr. Potter and Ms. Logan**

**Class II FOMC – Restricted (FR)**

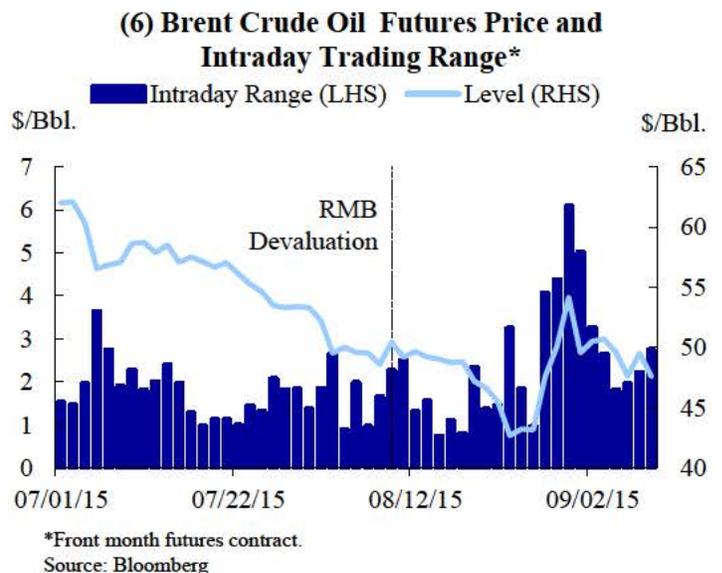
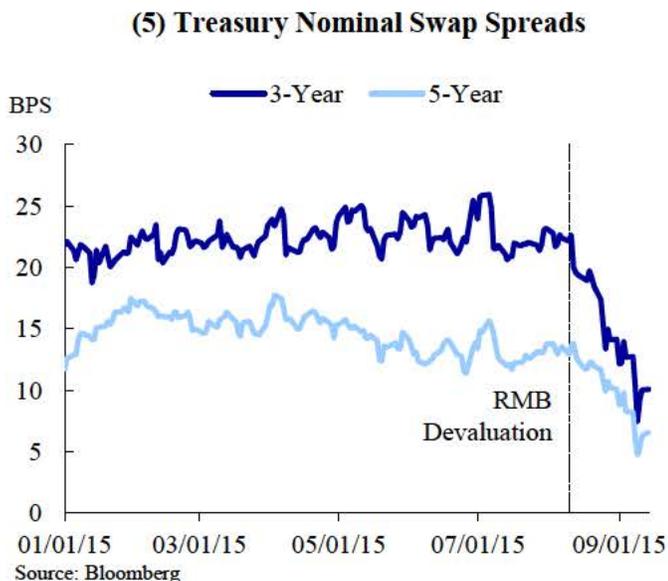
*Material for Briefing on*

**Financial Developments and  
Open Market Operations**

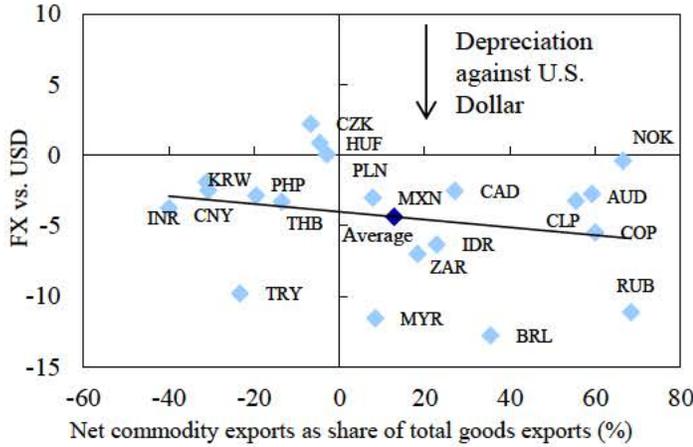
**Simon Potter and Lorie Logan**  
September 16, 2015



- ### (4) China: Estimated FX Intervention
- Chinese official reserve data for August reported \$100 billion monthly decline
  - Contacts believe intervention might have been significantly larger
  - Expectations are for continued heavy intervention in coming months
  - Chinese sales of Treasuries likely put significant upward pressure on yields

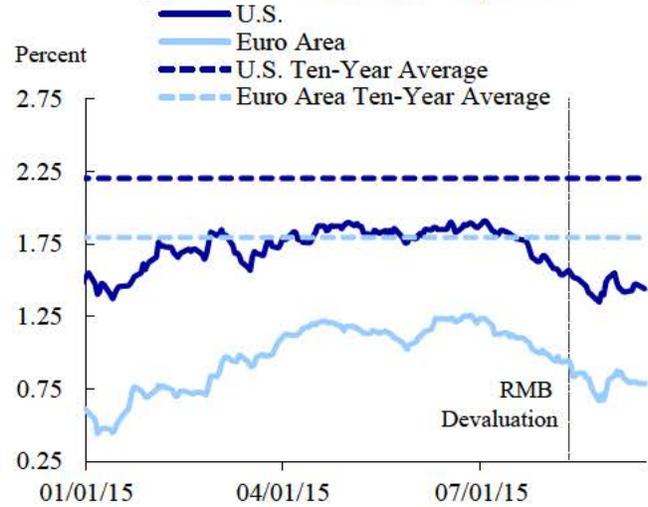


**(7) FX Performance Over Intermeeting Period and Net Commodity Exports**



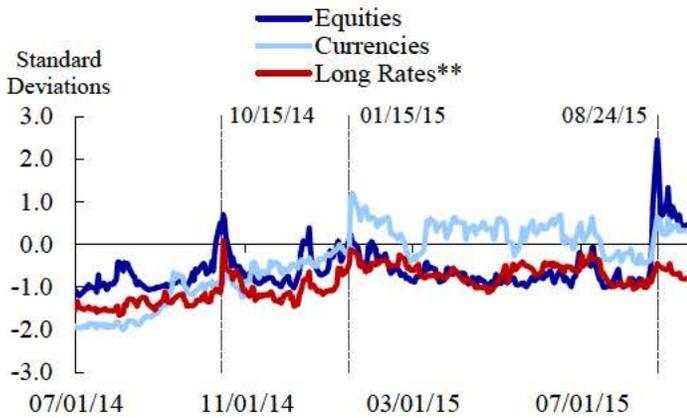
Source: Unctad, Bloomberg

**(8) Five-Year Inflation Swap Rates**



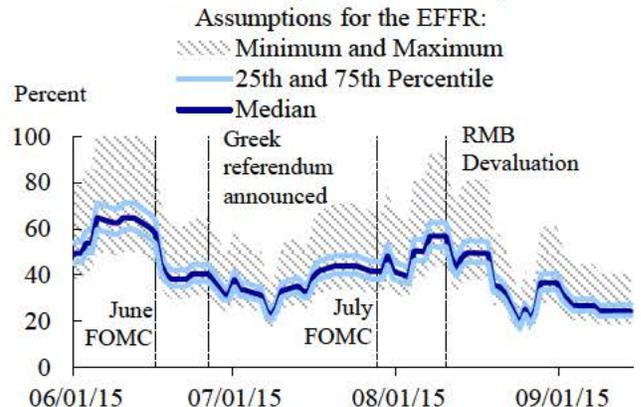
Source: Barclays

**(9) Standardized Implied Volatility Indices\***



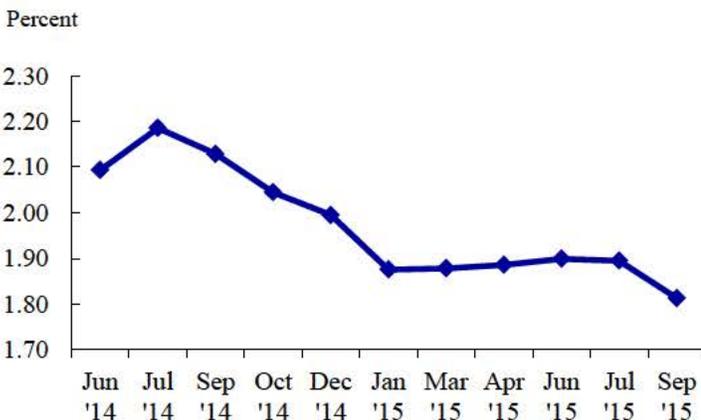
\*Standardized 1-month implied volatilities since June 1994.  
 \*\*Swaption with 10-year underlying.  
 Source: Bloomberg, CBOE, Deutsche Bank, Barclays, Federal Reserve Bank of New York Desk Calculations

**(10) Market-Implied Probability of Liftoff At or Before September Meeting\***



\*Based on responses from the July Survey of Primary Dealers and June Survey of Market Participants' PDF-implied means for the EFFR immediately after liftoff. Probabilities are derived from October fed funds futures contract.  
 Source: Bloomberg, Federal Reserve Bank of New York Desk Calculations

**(11) Expectations for Inflation Between One and Two Years After Liftoff\***



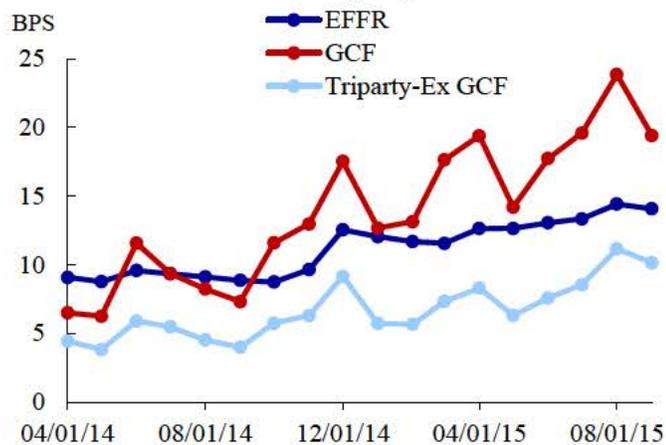
\*Calculated as average of modal expectations for inflation 1-2 years ahead after liftoff.  
 Source: Federal Reserve Bank of New York

**(12) Intermeeting Change in Key Components of Financial Conditions**

	Current Period	Percentile*
S&P 500	-6.7%	4%
5-Year High Yield OAS	+14 bps	31%
FRB Real Broad TW-Dollar	+3.4%	2%
10-Year TIPS Yield	+11 bps	22%
MBS OAS	-4 bps	76%

\*Percentiles are measured over intermeeting period changes since January 2010 and computed so that lower percentiles represents a larger tightening in financial conditions. MBS OAS uses current coupon Fannie Mae 30-Year security.  
 Source: Bloomberg, Barclays, Federal Reserve Board of Governors

**(13) Monthly Average Effective Federal Funds and Treasury Repo Rates\***



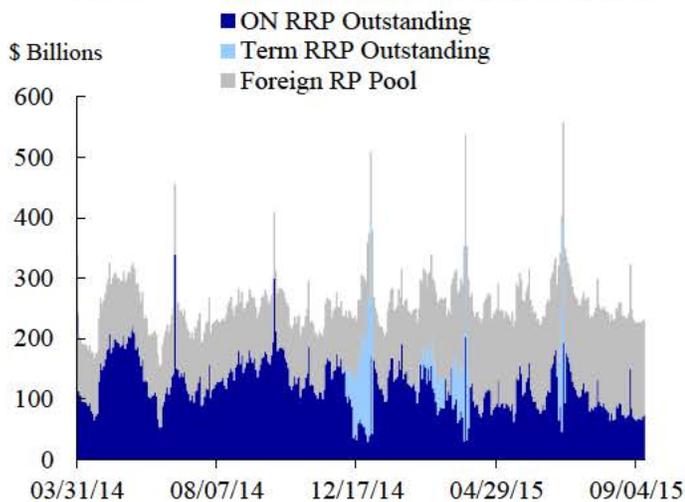
\*Averages are taken over each month noted and exclude month ends.  
Source: Bloomberg, Federal Reserve Bank of New York

**(14) Primary Dealer Net Treasury Position**



Source: Federal Reserve Bank of New York (FR2004), Haver

**(15) RRP's Outstanding and Foreign Repo Pool**



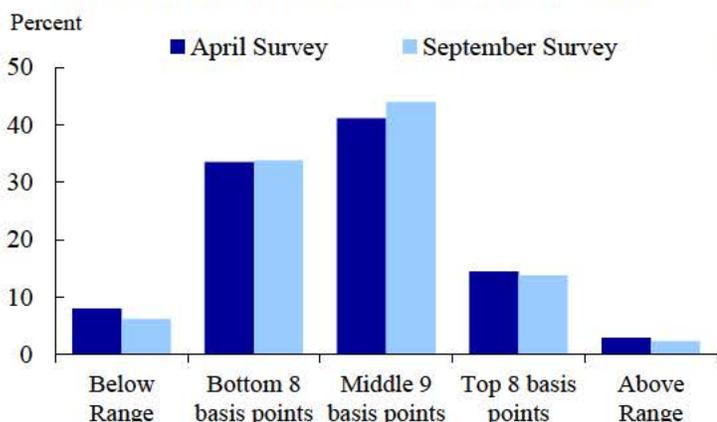
Source: Federal Reserve Bank of New York

**(16) Comparison of Current Interest Rate Levels to Median Estimates after Liftoff**

All Values in BPS	Current*	Post-Liftoff**	
		Desk Surveys	Desk Outreach
3m USD LIBOR	33	55	53
GCF TSY Repo	21	45	40
Tri-party Treasury Repo	11	n/a	31
O/N Eurodollars	14	n/a	36
Effective fed funds	14	35	36
3m Treasury bill	4	30	20

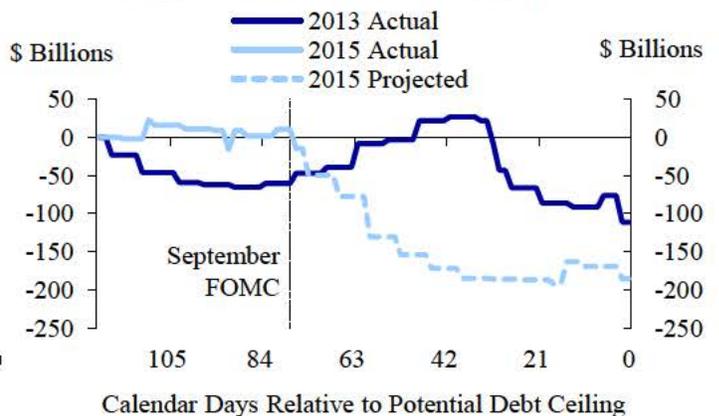
\*Current rates are daily averages from 08/11/15 to 09/11/15.  
\*\* In Desk surveys, all primary dealers and 20 buy side firms expect target range of 25 to 50 bps following liftoff; 7 buy side firms expect a target rate. In Desk outreach, contacts were asked to assume a 25 to 50 bps target range.  
Source: Federal Reserve Bank of New York, Bloomberg

**(17) Average Probability Distribution of the Expected Effective Federal Funds Rate Level After Liftoff\***



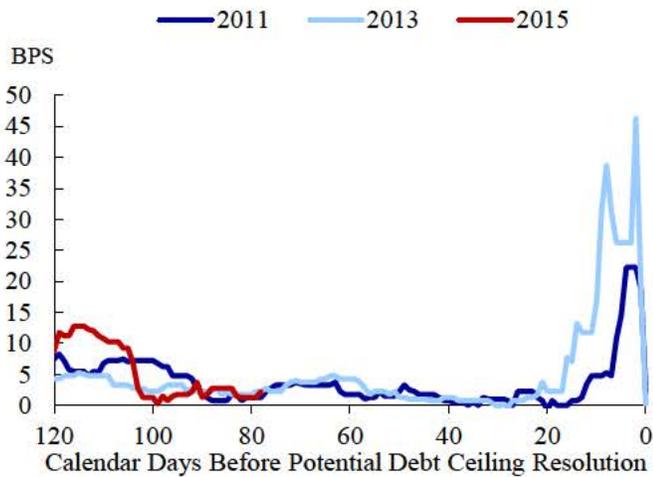
\*Average of all responses to the Survey of Primary Dealers and Survey of Market Participants. Question was first asked in April 2015 survey.  
Source: Federal Reserve Bank of New York

**(18) Cumulative Change in Treasury Bill Supply Relative to Debt Ceiling Dates\***



\*11/30/15 and 10/16/13 used as debt ceiling dates.  
Source: U.S. Treasury, Federal Reserve Bank of New York Desk Calculations

**(19) First Debt Ceiling-Impacted Bill\***



\*Bills shown mature(d) on 08/04/11, 10/24/13, 12/03/15.  
Source: Bloomberg

**(20) September Term RRP Plans\***

*If the Committee decides not to liftoff:*

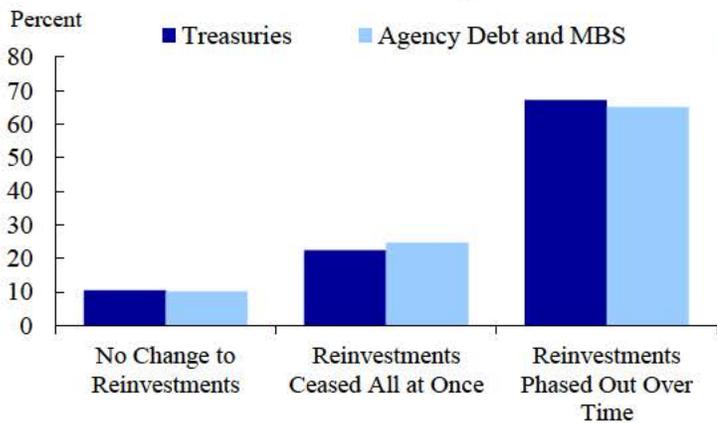
Operation Date	Maturity Date	Term	Amount Offered (\$ Billion)	Max Rate (BPS)
Sep 24	Oct 01	7 days	100	ON RRP + 3
Sep 30	Oct 02	2 days	150	ON RRP + 3

*If the Committee decides to liftoff:*

Operation Date	Maturity Date	Term	Amount Offered (\$ Billion)	Max Rate (BPS)
Sep 24	Oct 01	7 days	100	ON RRP
Sep 30	Oct 02	2 days	100	ON RRP

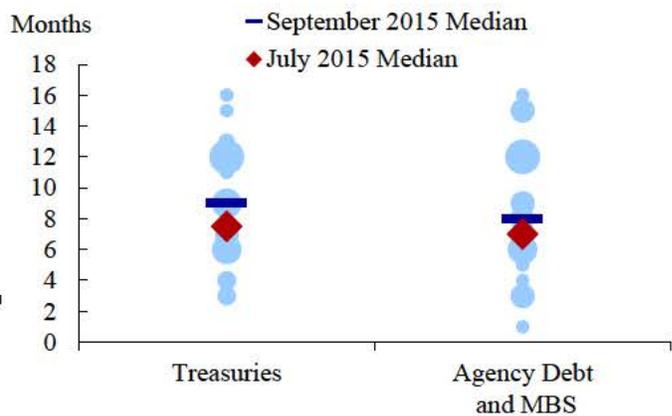
\*Details in blue already announced.

**(21) Average Probability Distribution of Expected Reinvestment Policy\***



\*Average of all responses to the Survey of Primary Dealers and Survey of Market Participants.  
Source: Federal Reserve Bank of New York

**(22) Expected Timing of End to Some or All Reinvestments Relative to Liftoff\***



\*Dots scaled by percent of respondents.  
Source: Federal Reserve Bank of New York

**Appendix 2: Materials used by Ms. Klee and Mr. Erceg**

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

*Material for Briefing on the*

**SOMA Reinvestment Policy**

**Christopher J. Erceg and Elizabeth Klee**  
September 16, 2015

## Exhibit 1 Questions and Strategies

### Key Questions

- How much might the choice of reinvestment strategy matter for economic outcomes?
- How much might the choice of reinvestment strategy affect the path of the federal funds rate?
- Can reinvestment strategies linked to the federal funds rate improve economic outcomes when the ELB is binding?

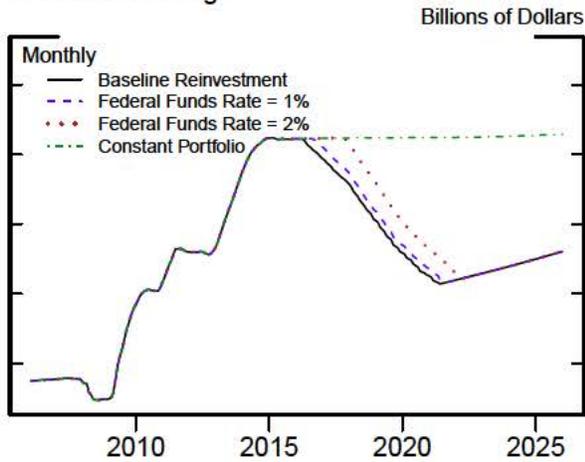
### "Trigger" Strategies

- Full reinvestment of principal payments from Treasury securities and MBS would continue until the federal funds rate reaches the trigger (1 or 2 percent), then stop permanently.
- Three key features:
  - **State dependent:** end of reinvestment depends on economic outlook.
  - **Links reinvestment to level of the policy rate.**
  - **Conditionality is limited:** triggers imply that reinvestment ends permanently once trigger is reached.

**Exhibit 2**

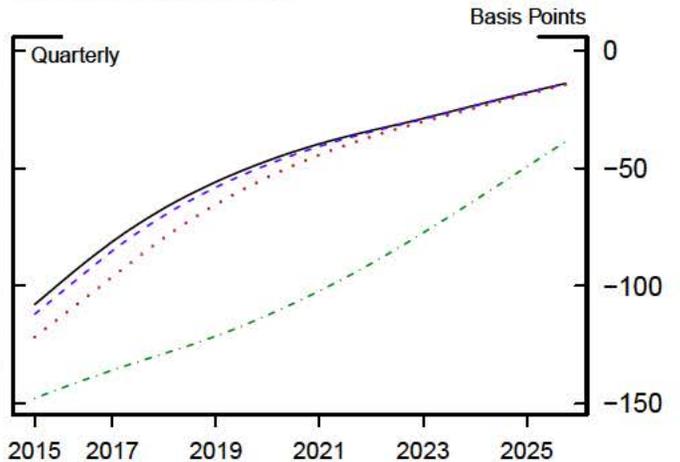
**Implications of Alternative Reinvestment Strategies for the Modal Outlook**

**A: SOMA Holdings**



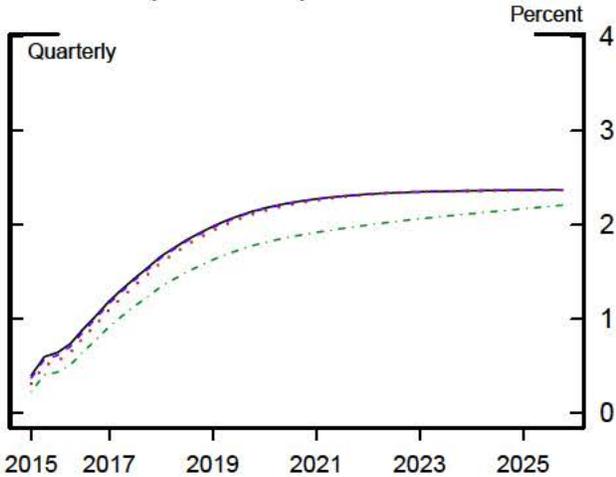
Source: H.4.1 Statistical Release and Staff Estimates.

**B: Term Premium Effect**



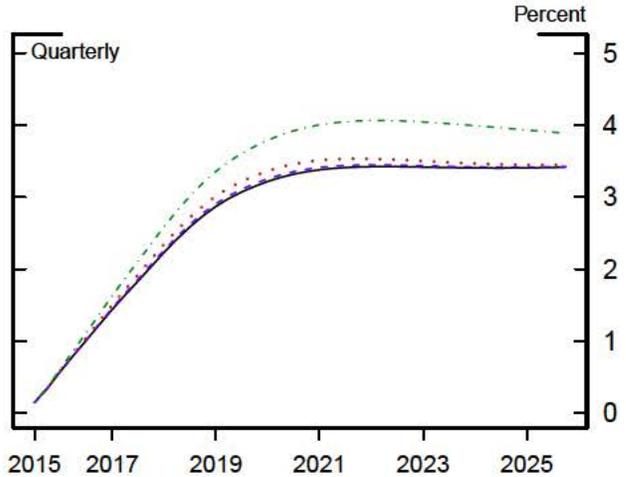
Source: Staff Estimates.

**C: Real 10-year Treasury Rate**



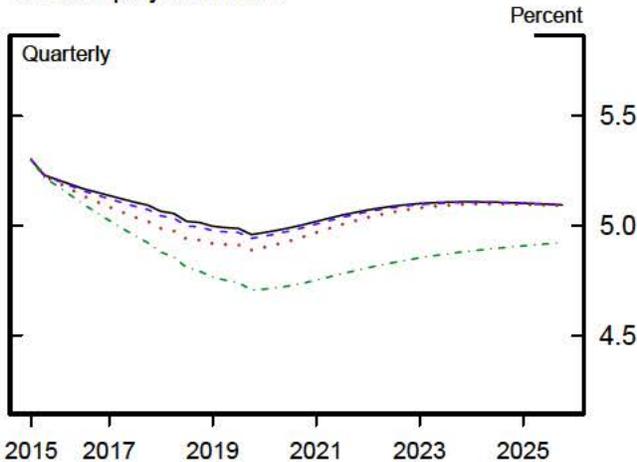
Source: Staff Estimates.

**D: Federal Funds Rate**



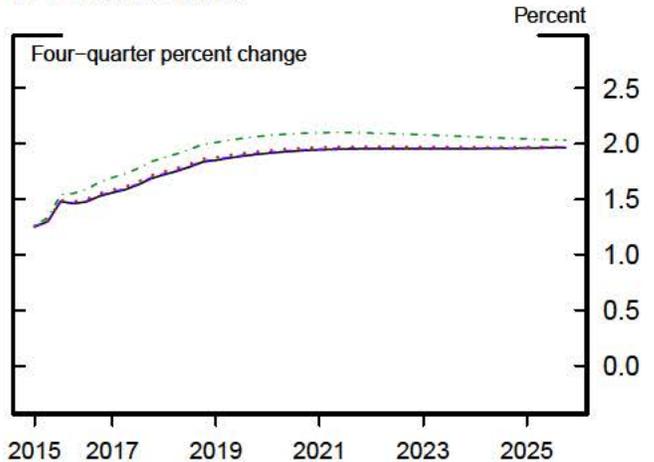
Source: Staff Estimates.

**E: Unemployment Rate**



Source: Staff Estimates.

**F: PCE Price Index**

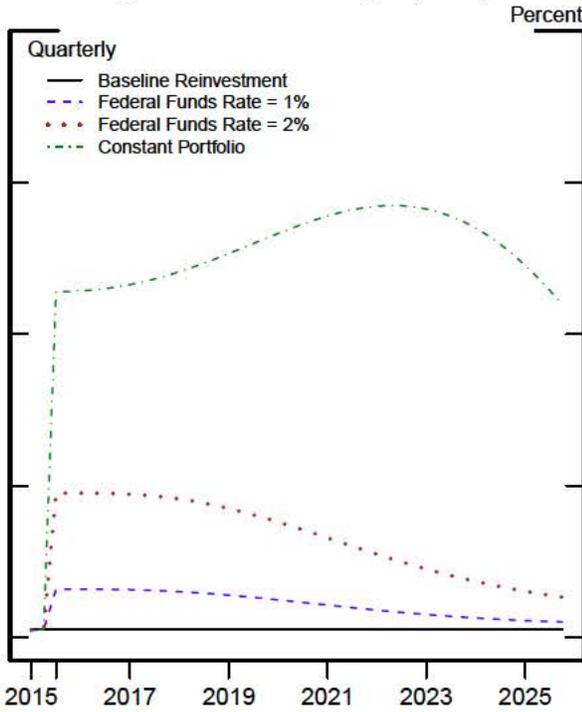


Source: Staff Estimates.

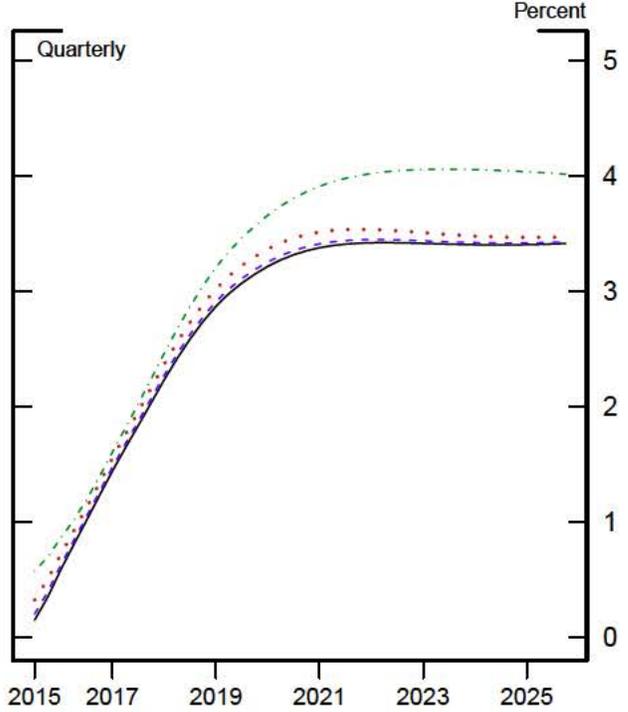
**Exhibit 3**

**Federal Funds Rate Increases Needed to Offset Balance Sheet Stimulus**

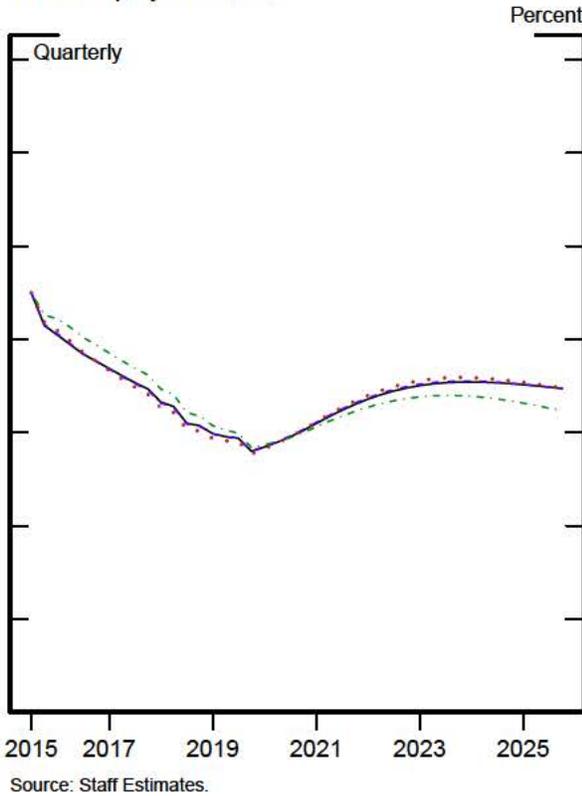
A: Intercept Term of Inertial Taylor (1999) Rule



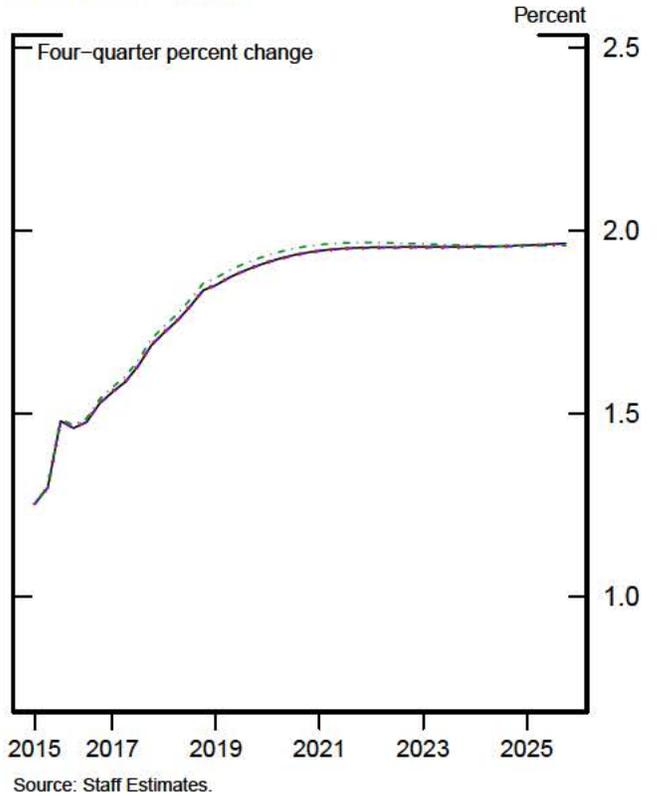
B: Federal Funds Rate



C: Unemployment Rate

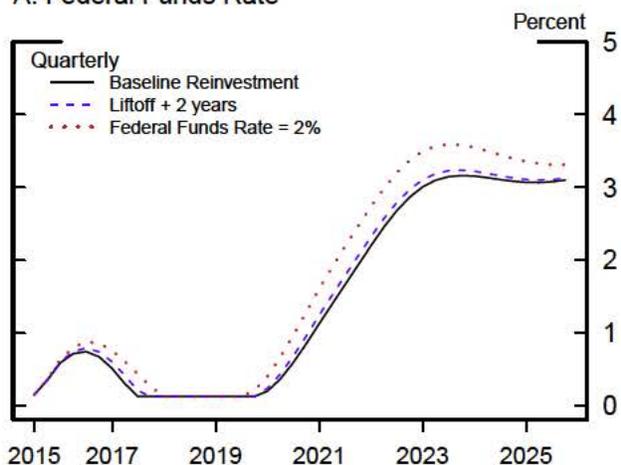


D: PCE Price Index



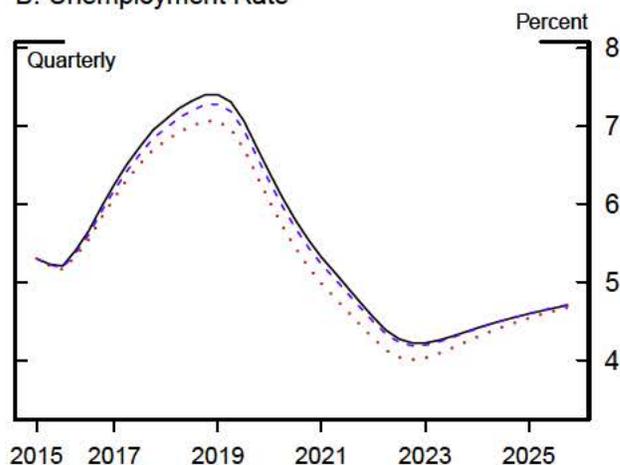
### Exhibit 4 Implications of Alternative Reinvestment Strategies for an Adverse Scenario

A: Federal Funds Rate



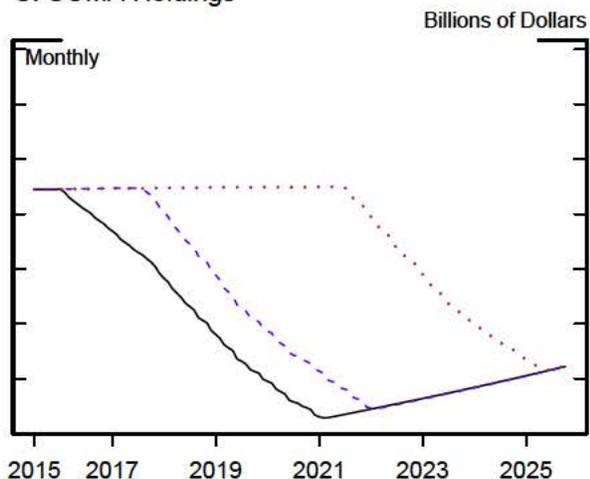
Source: Staff Estimates.

B: Unemployment Rate



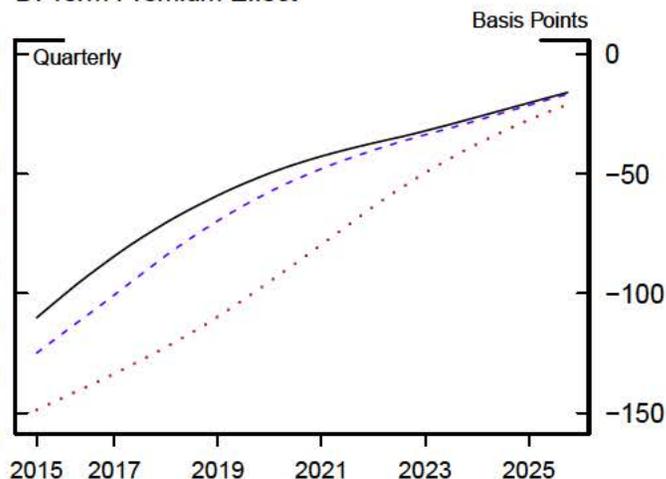
Source: Staff Estimates.

C: SOMA Holdings



Source: H.4.1 Statistical Release and Staff Estimates.

D: Term Premium Effect



Source: Staff Estimates.

#### Key Implications of Trigger Strategies

- Balance sheet stimulus under trigger in adverse scenario comes from an expectations channel:
  - Reinvestment is tied to policy rate, which is expected to remain low.
- A "calendar-based" strategy that simply delayed reinvestment for a couple of years after liftoff would provide much less economic stimulus in adverse scenarios
- The trigger strategy only provides noticeable stimulus if the adverse shock occurs before the policy rate reaches the trigger.

**Exhibit 5**  
**Options for Statement Language on Reinvestment Policy**

**Alternative C Options**

- Continue Reinvestments
  - "until normalization of the level of the federal funds rate is well under way"
    - Qualitatively consistent with trigger strategies.
    - Might be interpreted as suggesting that reinvestment would not cease until the Committee had increased the federal funds rate more than a few times.
    - Public might conclude that reinvestment could continue for a long time if the economic outlook deteriorated.
    - Qualitative language would leave some ambiguity about how high the funds rate would have to rise to end reinvestment, though policymakers could clarify through communications.
  - "at least during the early stages of normalization of the level of the federal funds rate"
    - Might be interpreted as indicating that the Committee intends to cease reinvestment after a few hikes in the policy rate.
    - Probably suggests that policymakers place a high priority on beginning to normalize the balance sheet fairly soon.
    - However "at least" would likely suggest that the Committee wanted to retain some option to continue reinvestment.

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

**Class II FOMC – Restricted (FR)**

*Material for*

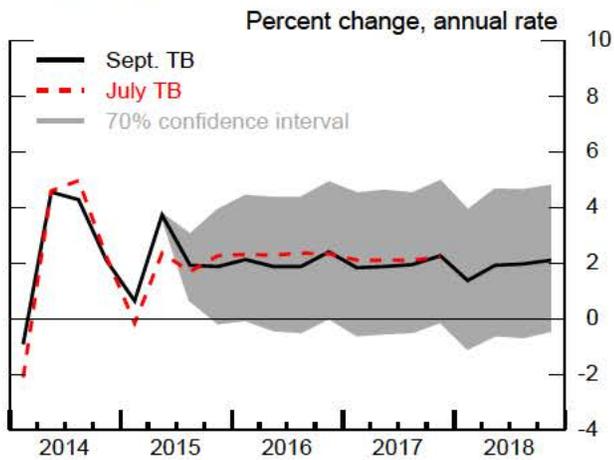
**The U.S. Outlook**

**David W. Wilcox**  
**September 16, 2015**

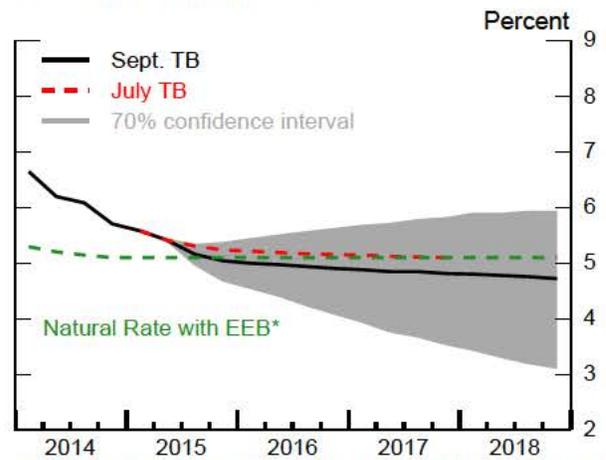
# Forecast Summary

Confidence Intervals Based on FRB/US Stochastic Simulations

## 1. Real GDP

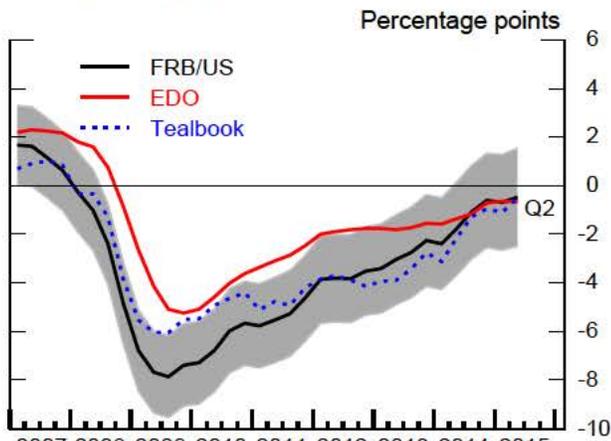


## 2. Unemployment Rate



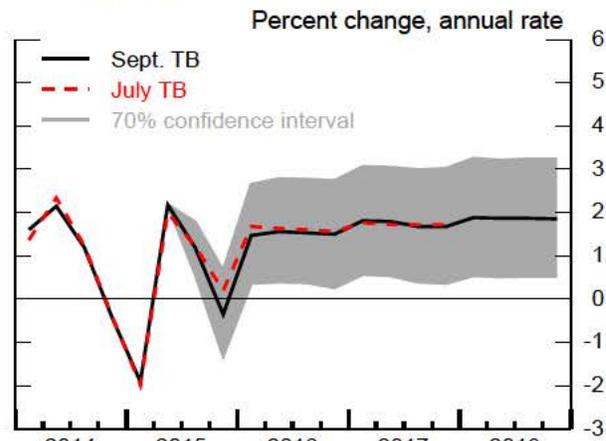
\*Effect of emergency unemployment compensation and state-federal extended benefit programs.

## 3. Output Gap Estimates

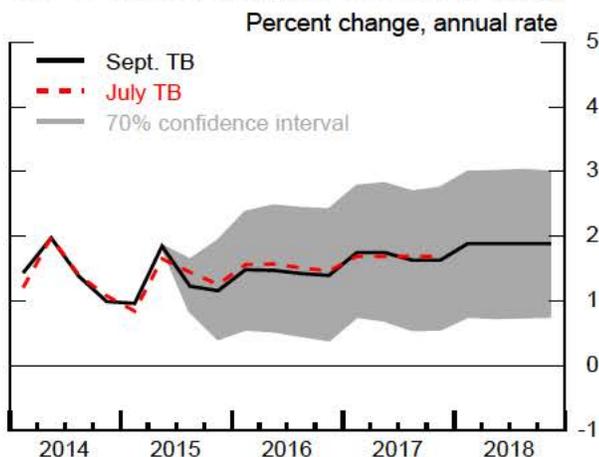


Note: The shaded region is the 2-standard deviation band around the FRB/US output gap, reflecting only filtering uncertainty.

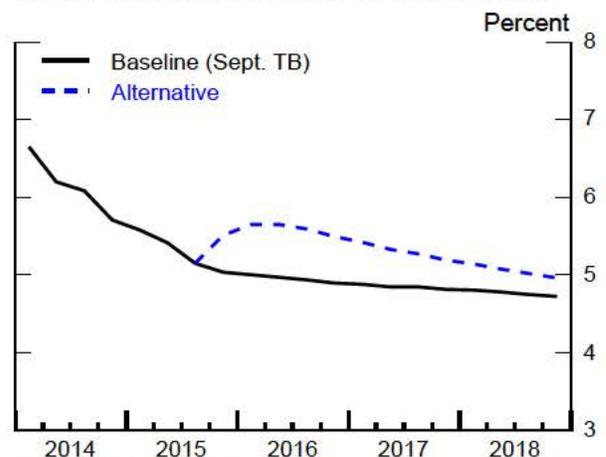
## 4. PCE Prices



## 5. PCE Prices Excluding Food and Energy



## 6. Unemployment Rate from Increased Financial Turbulence Scenario



Note: Shock hits in 2015:Q4.

## Key Economic Indicators for the September, October, and December FOMC Meetings

(Percent change at annual rate, except as noted)

	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Total PCE price index</b>							
3-month change	2.4	2.5	1.1	0.0	-0.7	-0.5	0.1
<i>July Tealbook</i>	2.2	2.5	1.1	0.0	-0.4	0.1	0.9
12-month change	0.3	0.3	0.3	0.2	0.0	0.2	0.5
<i>July Tealbook</i>	0.2	0.2	0.2	0.1	0.1	0.3	0.7
<b>Core PCE price index</b>							
3-month change	1.7	1.4	1.3	1.1	1.1	1.2	1.2
<i>July Tealbook</i>	1.5	1.5	1.4	1.4	1.3	1.3	1.2
12-month change	1.3	1.2	1.3	1.3	1.3	1.3	1.4
<i>July Tealbook</i>	1.2	1.2	1.3	1.3	1.2	1.3	1.4
<b>Unemployment rate (percent)</b>	5.3	5.3	5.1	5.1	5.1	5.0	5.0
<i>July Tealbook</i>	5.3	5.3	5.3	5.3	5.2	5.2	5.2
<b>Payroll employment (change in 000s)</b>	245	245	173	272	209	205	201
<i>July Tealbook</i>	223	223	218	213	210	205	200
<b>Gross Domestic Product</b>			2nd Q2 est.	3rd Q2 est.		2nd Q3 est.	
<i>July Tealbook</i>			3.7	3.7		1.9	
			2.4	2.4		1.7	

**Memo: Revisions from July Tealbook\***

	Q3	Q4
<i>Equity prices</i>	-6.4	-5.1
<i>Real broad dollar</i>	1.2	2.3

\* Percent revision of level relative to July Tealbook path.

**Key: Estimate first available at:**

<span style="background-color: #e6f2ff; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> September meeting	<span style="background-color: #fff9c4; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> October meeting	<span style="background-color: #ffe0e0; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> December meeting
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**Note:** Current projection for September payroll employment change includes anticipated revision to initially reported August figure.

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

**Class II FOMC – Restricted (FR)**

*Material for*

**Consumer Price Index Update**

**David W. Wilcox**  
**September 16, 2015**

### Recent Changes in Consumer Price Indexes (Percent)

	Monthly change			Change at AR	
	June	July	Aug.	Q3(f)	Q4(f)
<b>Total CPI</b>	<b>0.3</b>	<b>0.1</b>	<b>-0.1</b>	<b>1.6</b>	<b>-0.8</b>
<i>September TB</i>			<i>-0.1</i>	<i>1.7</i>	<i>-0.7</i>
Food	0.3	0.2	0.2		
<i>September TB</i>			<i>0.1</i>		
Energy	1.7	0.1	-2.0		
<i>September TB</i>			<i>-2.5</i>		
<b>Core CPI</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>1.6</b>	<b>1.5</b>
<i>September TB</i>			<i>0.1</i>	<i>1.8</i>	<i>1.6</i>
 <b><i>Memo : PCE price index estimates</i></b>					
<b>Total PCE price index</b>	<b>0.2</b>	<b>0.1</b>	<b>0.0</b>	<b>1.2</b>	<b>-0.5</b>
<i>September TB</i>	<i>0.2</i>	<i>0.1</i>	<i>0.0</i>	<i>1.2</i>	<i>-0.4</i>
<b>Core PCE price index</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>1.2</b>	<b>1.1</b>
<i>September TB</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>1.2</i>	<i>1.2</i>

Notes: August 2015 CPI data released at 8:30 a. m. on September 16, 2015. PCE price changes are staff estimates based on a translation of the August CPI and PPI data through August.  
f: Staff forecast.

**Appendix 5: Materials used by Mr. Kamin**

**Class II FOMC – Restricted (FR)**

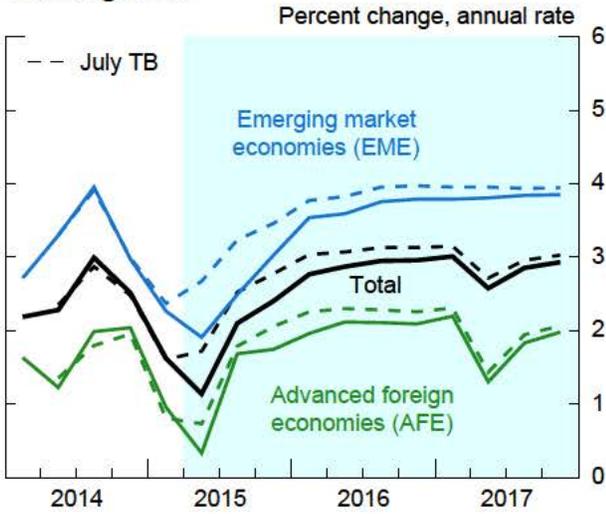
*Material for*

**The International Outlook**

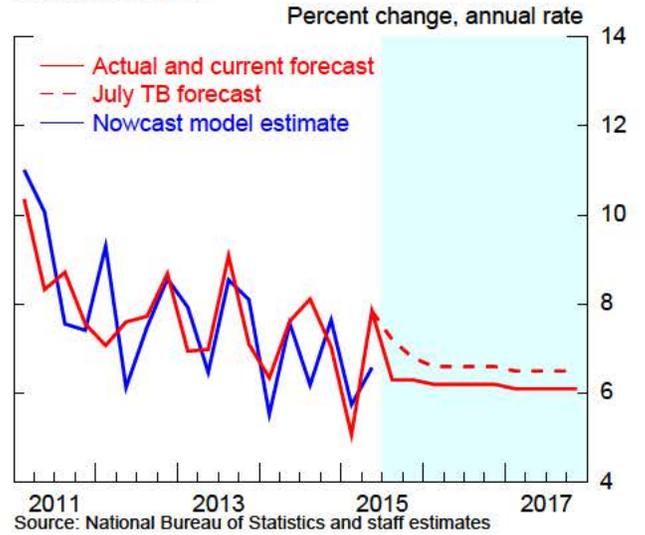
**Steven B. Kamin**  
September 16, 2015

# The International Outlook

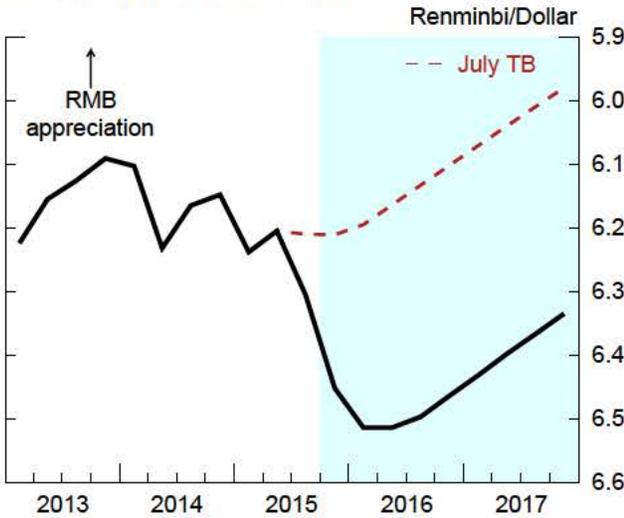
## 1. Foreign GDP



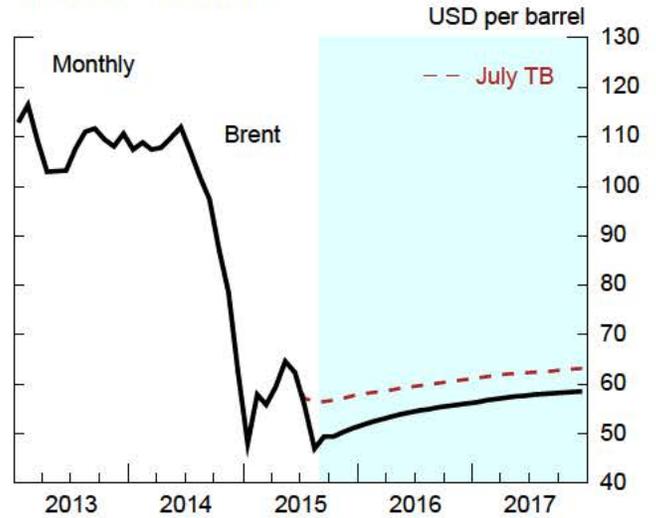
## 2. Chinese GDP



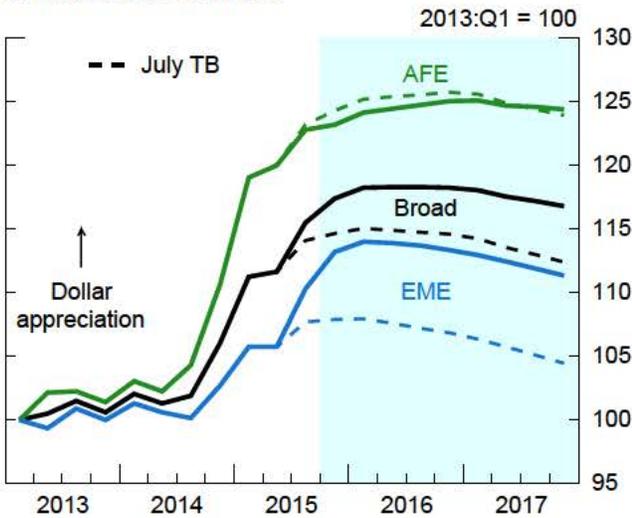
## 3. Outlook for the Renminbi



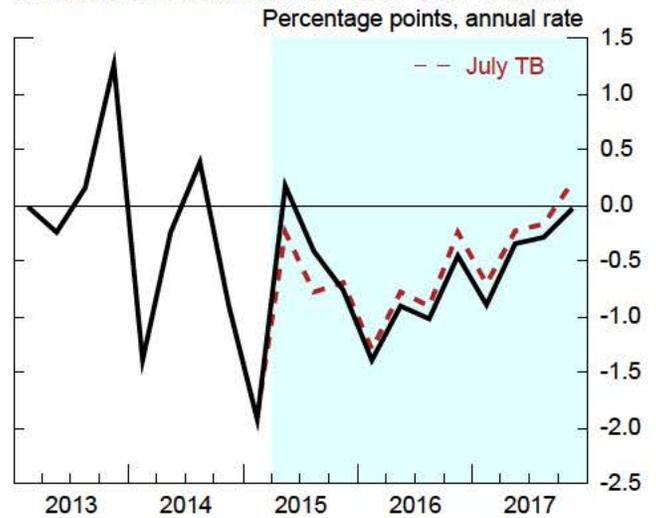
## 4. Oil Price Outlook



## 5. Real Dollar Indexes



## 6. NX Contribution to U.S. Real GDP Growth



## The International Outlook (2)

### 1. Three EME Recession Scenarios

**1. China Crisis - Direct Effects on U.S. Economy (Green)**

- 7 percent fall in Chinese GDP below baseline
- 10 percent devaluation of the renminbi against the dollar
- No spillovers to other economies

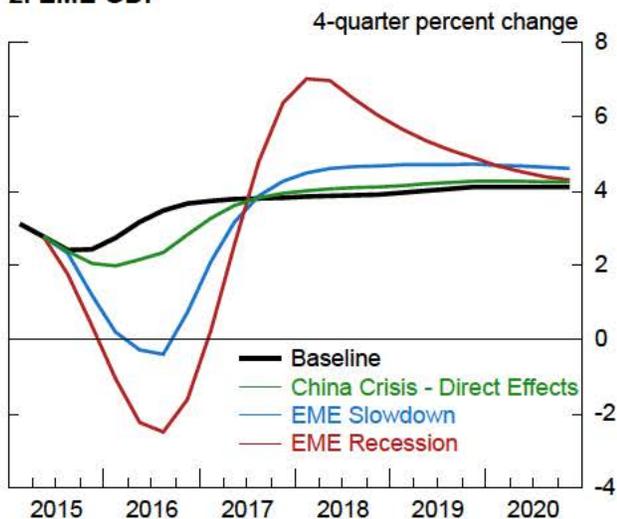
**2. EME Slowdown (Blue)**

- Non-China EME GDP falls 3.5 percent below baseline
- Real dollar rises by 10 percent against EMEs; 8 percent against all trading partners

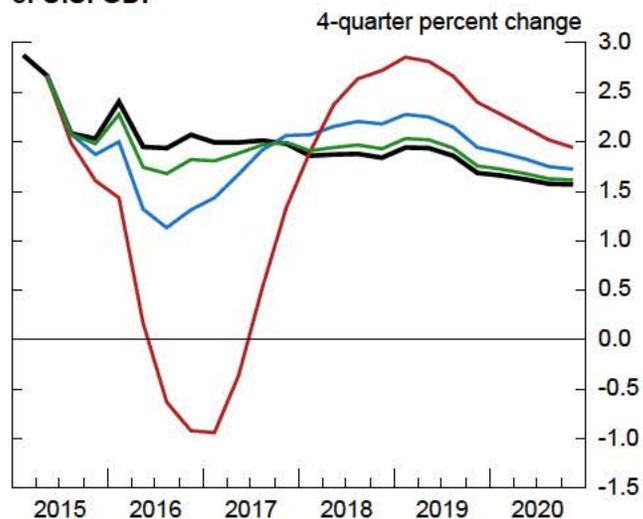
**3. EME Recession + financial spillovers to advanced economies (Red)**

- Non-China EME GDP falls 7 percent below baseline
- Real dollar rises by 22 percent against EMEs; 17 percent against all trading partners
- Advanced economy credit spreads rise, equity prices and sovereign yields fall

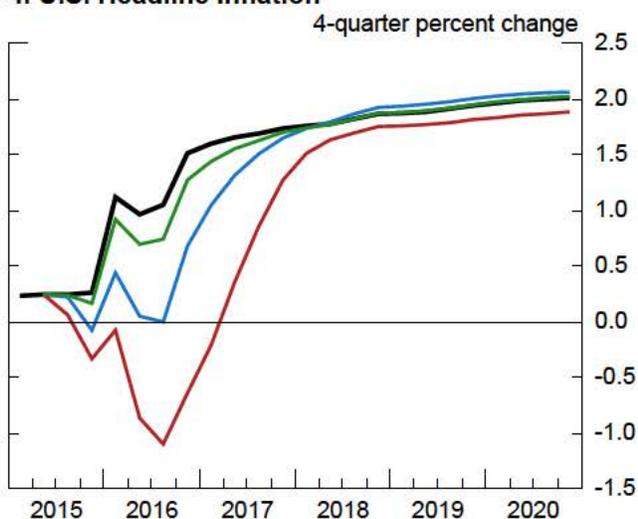
#### 2. EME GDP



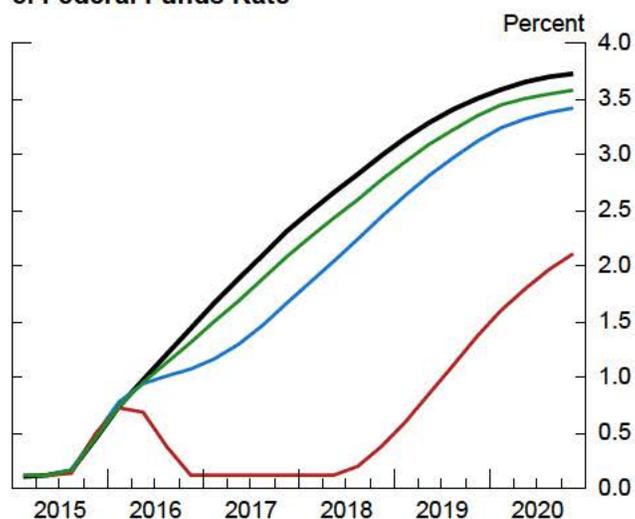
#### 3. U.S. GDP



#### 4. U.S. Headline Inflation



#### 5. Federal Funds Rate



**Appendix 6: Materials used by Mr. Covas**

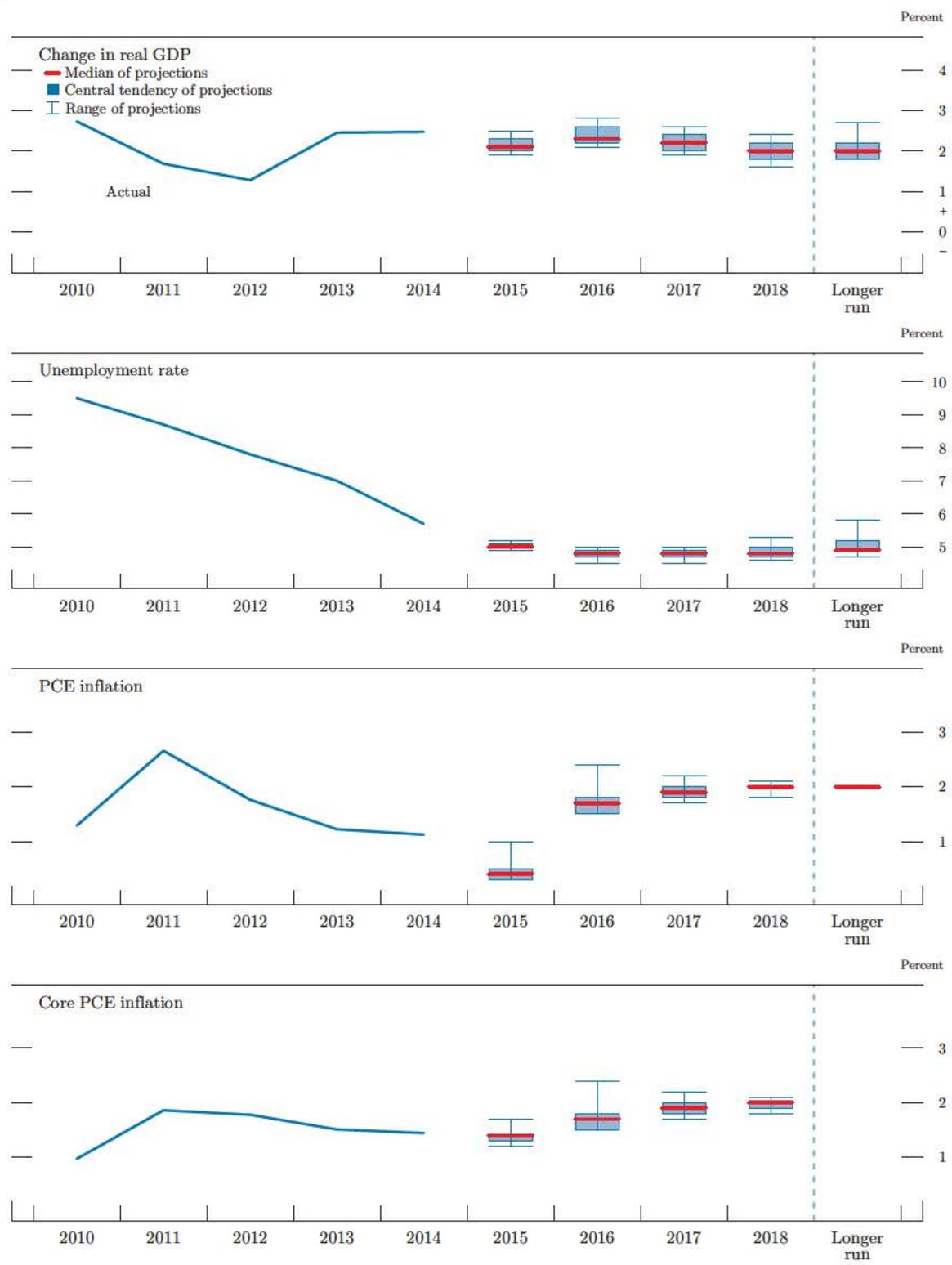
**Class I FOMC – Restricted Controlled (FR)**

*Material for Briefing on the*

**Summary of Economic Projections**

**Francisco Covas**  
**September 16, 2015**

Exhibit 1. Medians, central tendencies, and ranges of economic projections, 2015–18 and over the longer run



NOTE: The data for the actual values of the variables are annual. The percent changes in real GDP and inflation are measured Q4/Q4. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated.

Exhibit 2. Economic projections for 2015–18 and over the longer run (percent)

<b>Change in real GDP</b>					
	2015	2016	2017	2018	Longer run
Median.....	2.1	2.3	2.2	2.0	2.0
June projection .....	1.9	2.5	2.3	n.a.	2.0
Range.....	1.9 – 2.5	2.1 – 2.8	1.9 – 2.6	1.6 – 2.4	1.8 – 2.7
June projection .....	1.7 – 2.3	2.3 – 3.0	2.0 – 2.5	n.a.	1.8 – 2.5
Memo: Tealbook .....	2.0	2.1	2.0	1.8	1.9
June projection .....	1.6	2.4	2.2	1.9	1.9

<b>Unemployment rate</b>					
	2015	2016	2017	2018	Longer run
Median.....	5.0	4.8	4.8	4.8	4.9
June projection .....	5.3	5.1	5.0	n.a.	5.0
Range.....	4.9 – 5.2	4.5 – 5.0	4.5 – 5.0	4.6 – 5.3	4.7 – 5.8
June projection .....	5.0 – 5.3	4.6 – 5.2	4.8 – 5.5	n.a.	5.0 – 5.8
Memo: Tealbook .....	5.0	4.9	4.8	4.7	5.1
June projection .....	5.3	5.2	5.2	5.1	5.2

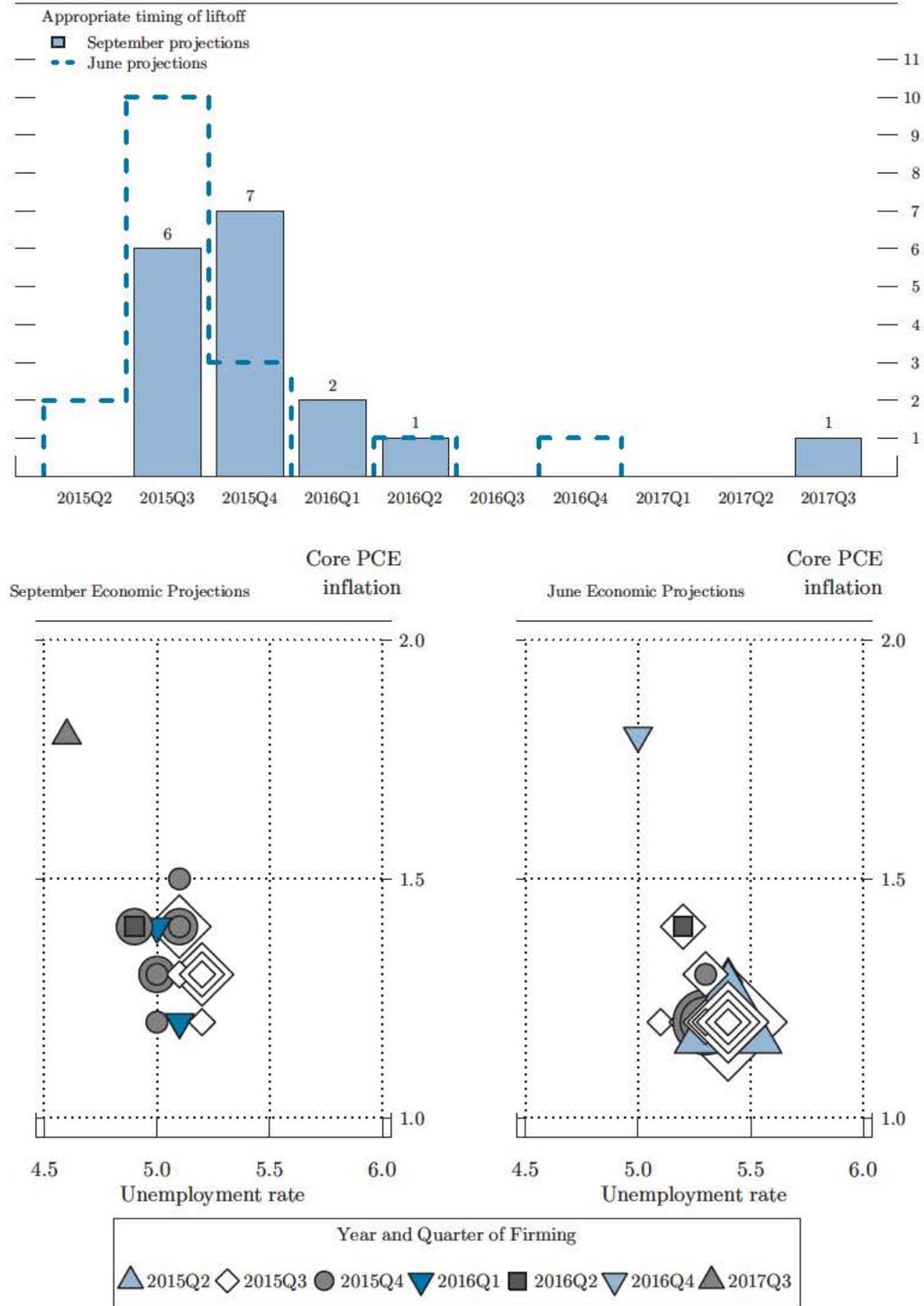
<b>PCE inflation</b>					
	2015	2016	2017	2018	Longer run
Median.....	0.4	1.7	1.9	2.0	2.0
June projection .....	0.7	1.8	2.0	n.a.	2.0
Range.....	0.3 – 1.0	1.5 – 2.4	1.7 – 2.2	1.8 – 2.1	2.0
June projection .....	0.6 – 1.0	1.5 – 2.4	1.7 – 2.2	n.a.	2.0
Memo: Tealbook .....	0.3	1.5	1.7	1.9	2.0
June projection .....	0.6	1.6	1.8	1.9	2.0

<b>Core PCE inflation</b>				
	2015	2016	2017	2018
Median.....	1.4	1.7	1.9	2.0
June projection .....	1.3	1.8	2.0	n.a.
Range.....	1.2 – 1.7	1.5 – 2.4	1.7 – 2.2	1.8 – 2.1
June projection .....	1.2 – 1.6	1.5 – 2.4	1.7 – 2.2	n.a.
Memo: Tealbook .....	1.3	1.4	1.7	1.9
June projection .....	1.3	1.6	1.8	1.9

\* The percent changes in real GDP and inflation are measured Q4/Q4. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated.

Exhibit 3. FOMC participants' assessments of the timing of and economic conditions at liftoff



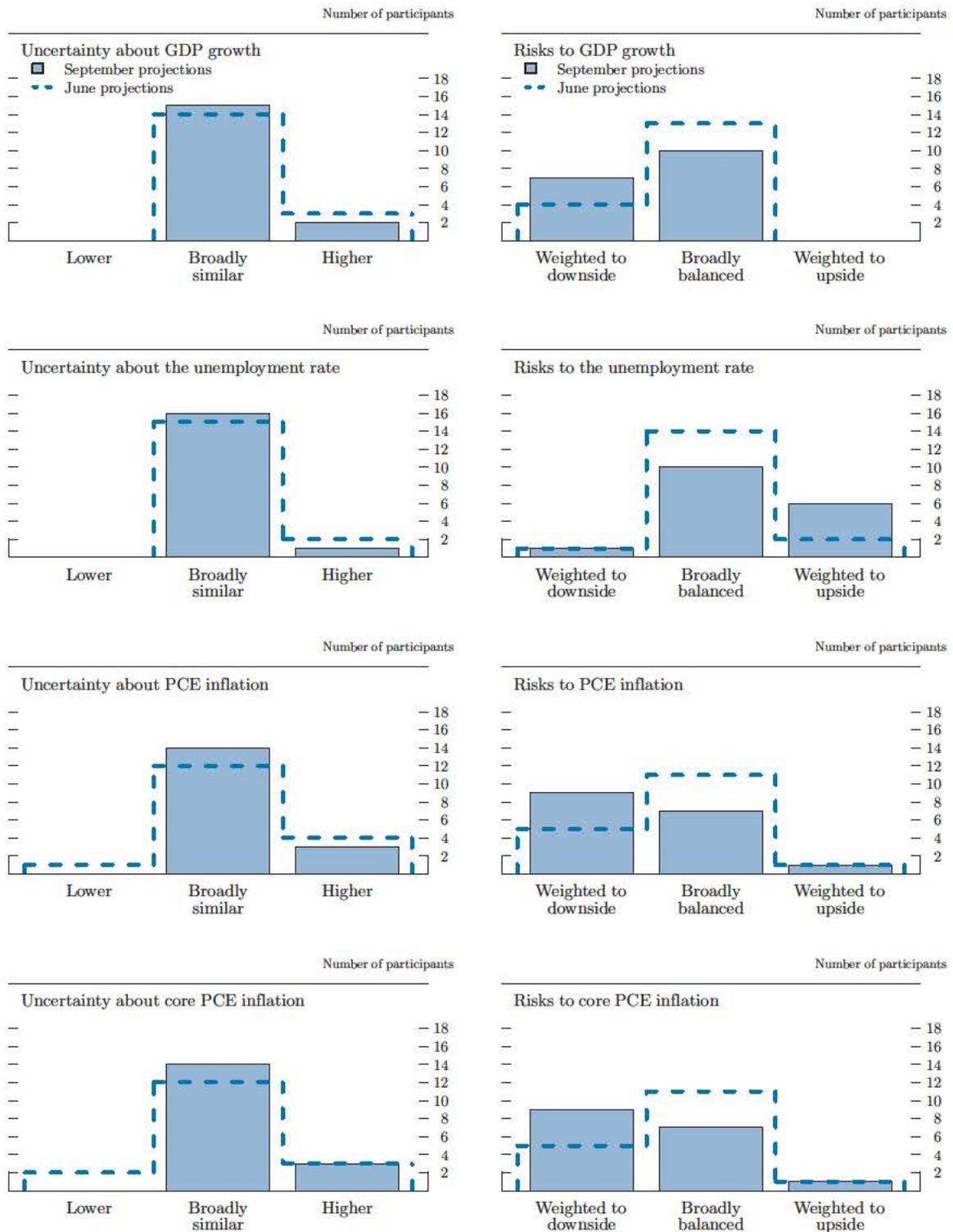
NOTE: In the upper panel, the height of each bar denotes the number of FOMC participants who judge that, under appropriate monetary policy, the first increase in the target range for the federal funds rate from its current range of 0 to 1/4 percent will occur in the specified calendar year and quarter. In the lower panels, percent change in core PCE is measured Q4/Q4 and when the projections of two or more participants are identical, larger markers, which represent one participant each, are used so that each projection can be seen.

Exhibit 4. Overview of FOMC participants' assessments of appropriate monetary policy



NOTE: In the two panels above, each circle indicates the value (rounded to the nearest 1/8 percentage point) of an individual participant's judgment of the midpoint of the appropriate target range for the federal funds rate or the appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. The red diamonds for each year represent the median of the federal funds rate prescriptions that were derived by taking each participant's projections for the unemployment gap, core PCE inflation and longer-run nominal federal funds rate for that year and inserting them into the non-inertial Taylor (1999) rule. The whiskers represent the central tendency of the prescriptions of the non-inertial Taylor (1999) rule using participants' projections.

Exhibit 5. Uncertainty and risks in economic projections



**Appendix 7: Materials used by Mr. Laubach**

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

*Material for*

**Briefing on Monetary Policy Alternatives**

**Thomas Laubach**  
**September 16–17, 2015**

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**Exhibit 1: Alternatives A, B, and C****Alternative B**

- Economic activity expanding at a moderate pace
  - apart from net exports, expansion has been more broadly based
- Labor market improved further and indicators "show" diminution of slack
  - quite close to meeting criterion for liftoff
- Inflation developments less favorable
  - further effects of price declines for energy
  - market-based measured of inflation compensation lower
- Acknowledges developments abroad
  - may restrain economic activity, but not enough to tilt risks to the downside
  - further downward pressure on inflation likely in the near term
- Not yet reasonably confident that inflation will move back to 2 percent over the medium term

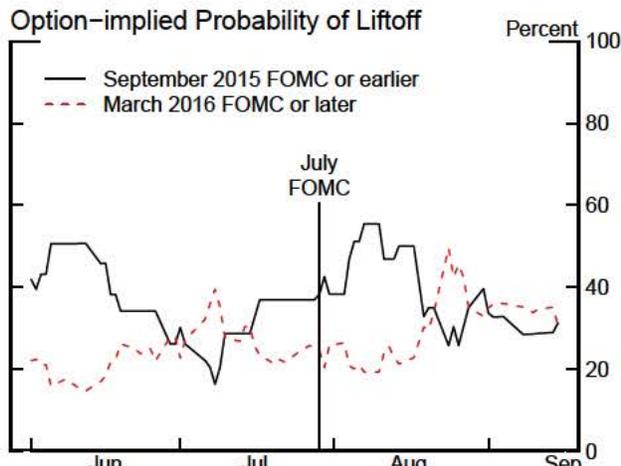
**Alternative A**

- More downbeat description of recent inflation developments
- Risks to the outlook tilted somewhat to the downside
- If no information indicating inflation returning to target, add accommodation to achieve that goal within one to two years

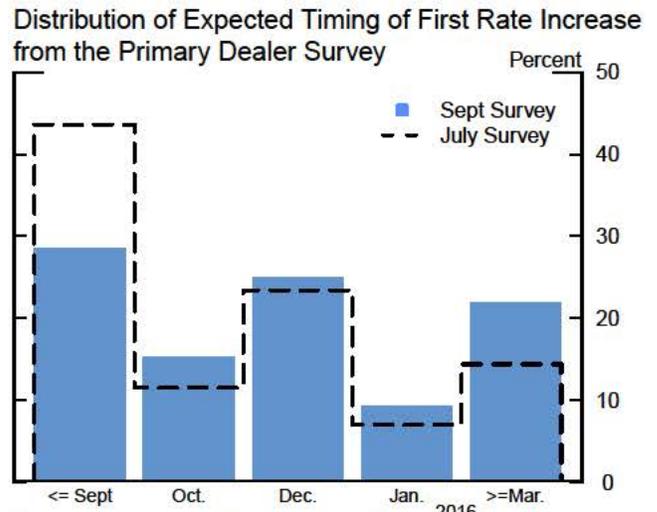
**Alternative C**

- Economic background for beginning to normalize the funds rate
- Economic growth moderate so far this year
- Labor market criterion for liftoff met
  - further improvement in the labor market "confirms" that resource slack has diminished
  - labor market conditions "approaching" mandated levels
- Reasonably confident that inflation will move back to 2 percent over the medium term
  - transitory factors will dissipate
  - labor market will continue to improve
  - inflation expectations will remain stable

### Exhibit 2: Monetary Policy Expectations



Note: Implied by federal funds futures. Assumes that investors expect the federal funds rate to trade around 37.5 basis points after liftoff.  
Source: CME Group.



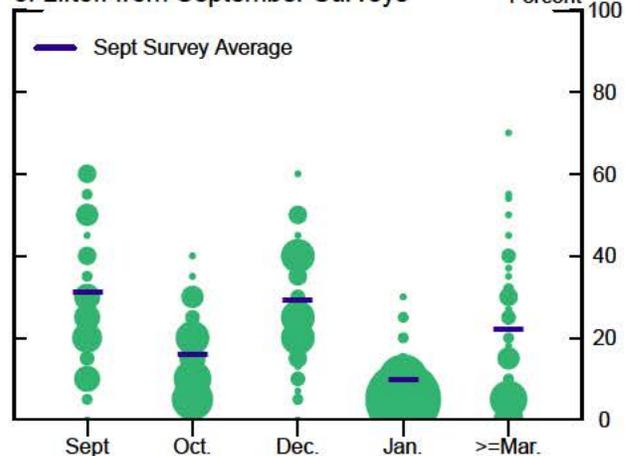
Note: Average across dealers of their individual probabilities attached to the first tightening occurring at a particular meeting.  
Source: FRBNY Primary Dealer Survey from September 8, 2015.

#### Probability of Tightening the Day Before the FOMC Meeting

	Percent
February 1994	67
June 2004	100
June 2015	3
September 2015	31

Note: Implied by federal funds futures. Assumes that investors expect the federal funds rate to trade around 37.5 basis points after liftoff. June 2015 numbers are as of June 15, 2015 and September numbers are as of September 15, 2015.  
Source: CME Group and staff calculations.

#### Distributions of Market Beliefs on the Timing of Liftoff from September Surveys

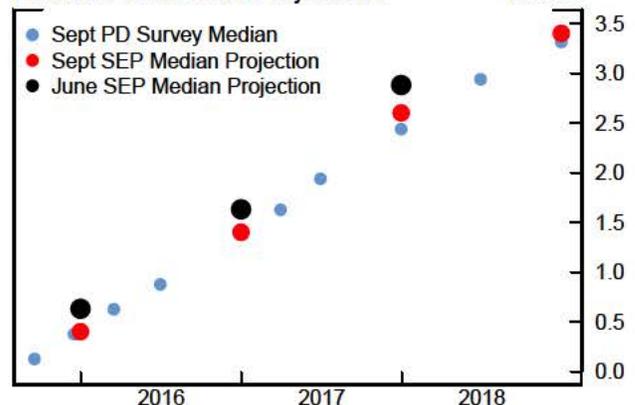


Note: Based on all responses from the Survey of Primary Dealers and Survey of Market Participants. Dots scaled by percent of respondents.  
Source: FRBNY Primary Dealer and Market Participant Survey from September 8, 2015.

#### Potential Financial Market Response

- Market reaction is hard to predict
- Overall response will be shaped by the Committee's communications
  - Policy path remains fairly shallow, has shifted down a bit
  - Continues to indicate normalization likely to begin later this year
- Risk Factors
  - Low level of term premiums
  - Technical factors and market dynamics

#### Federal Funds Rate Projections



Source: Bloomberg, FRBNY Primary Dealer Survey, September and June 2015 SEP, and staff calculations.

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## JULY 2015 FOMC STATEMENT

1. Information received since the Federal Open Market Committee met in June indicates that economic activity has been expanding moderately in recent months. Growth in household spending has been moderate and the housing sector has shown additional improvement; however, business fixed investment and net exports stayed soft. The labor market continued to improve, with solid job gains and declining unemployment. On balance, a range of labor market indicators suggests that underutilization of labor resources has diminished since early this year. Inflation continued to run below the Committee's longer-run objective, partly reflecting earlier declines in energy prices and decreasing prices of non-energy imports. Market-based measures of inflation compensation remain low; survey-based measures of 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 expects that, with appropriate policy accommodation, economic activity will expand at a moderate pace, with labor market indicators continuing to move toward levels the Committee judges consistent with its dual mandate. The Committee continues to see the risks to the outlook for economic activity and the labor market as nearly balanced. Inflation is anticipated to remain near its recent low level in the near term, but the Committee expects inflation to rise gradually toward 2 percent over the medium term as the labor market improves further and the transitory effects of earlier declines in energy and import prices dissipate. The Committee continues to monitor inflation developments closely.
3. To support continued progress toward maximum employment and price stability, the Committee today reaffirmed its view that the current 0 to  $\frac{1}{4}$  percent target range for the federal funds rate remains appropriate. In determining how long to maintain this target range, the Committee will assess progress—both realized and expected—toward its objectives of maximum employment and 2 percent inflation. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. The Committee anticipates that it will be appropriate to raise the target range for the federal funds rate when it has seen some further improvement in the labor market and is reasonably confident that inflation will move back to its 2 percent objective over the medium term.
4. 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 of rolling over maturing Treasury securities at auction. This policy, by keeping the Committee's holdings of longer-term securities at sizable levels, should help maintain accommodative financial conditions.
5. 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. The Committee currently anticipates that, even after employment and inflation are near mandate-consistent levels, economic conditions may, for some time, warrant keeping the target federal funds rate below levels the Committee views as normal in the longer run.

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**ALTERNATIVE A FOR SEPTEMBER 2015**

1. Information received since the Federal Open Market Committee met in June **July** indicates **suggests** that economic activity ~~has been~~ **is** expanding ~~at a moderately moderate pace~~ in recent months. Growth in Household spending **and business fixed investment** ~~has~~ **have** been **increasing** moderately, and the housing sector has ~~shown~~ additional improvement **improved further**; however, ~~business fixed investment and net exports stayed~~ **have been** soft. The labor market continued to improve, with solid job gains and declining unemployment. ~~On balance,~~ A range of labor market indicators suggests **shows** that underutilization of labor resources has diminished since early this year, **but gains in labor compensation have remained subdued**. **Both overall and core inflation have** continued to run below the Committee's longer-run **inflation** objective, partly reflecting ~~earlier~~ declines in energy prices and ~~decreasing~~ **in** prices of non-energy imports. Market-based measures of inflation compensation ~~remain low~~ **are near multiyear lows**; survey-based measures of 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 expects that, with appropriate policy accommodation, economic activity will expand at a moderate pace, with labor market indicators continuing to move toward levels the Committee judges consistent with its dual mandate. **However, in light of economic and financial developments abroad,** the Committee ~~continues to see~~ the risks to the outlook for economic activity and the labor market as ~~nearly balanced~~ **tilted somewhat to the downside**. Inflation is anticipated to remain ~~near its recent~~ **very** low level in the near term, ~~but~~ **as recent movements in oil prices and exchange rates impose some additional restraint on inflation**. The Committee expects inflation to rise gradually toward 2 percent over the medium term as the labor market improves further and the transitory effects of ~~earlier~~ declines in energy and import prices dissipate. ~~The Committee~~ **but it** continues to monitor inflation developments closely.
3. **With inflation, core inflation, and gains in labor compensation all subdued, and with market-based measures of inflation compensation very low,** the Committee ~~today reaffirmed its view~~ **judges** that the current 0 to ¼ percent target range for the federal funds rate remains appropriate to support continued progress toward maximum employment and price stability. In determining how long to maintain this target range, the Committee will assess progress—both realized and expected—toward its objectives of maximum employment and 2 percent inflation. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. ~~The Committee anticipates that it will be appropriate to raise the target range for the federal funds rate when it has seen further improvement in the labor market and is reasonably confident that inflation will move back to its 2 percent objective over the medium term.~~ **If incoming information does not soon indicate that inflation is beginning to move back toward 2 percent, the Committee is prepared to use all tools necessary to return inflation to 2 percent within one to two years.**

4. 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 of rolling over maturing Treasury securities at auction. This policy, by keeping the Committee's holdings of longer-term securities at sizable levels, should help maintain accommodative financial conditions.
5. 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. The Committee currently anticipates that, even after employment and inflation are near mandate-consistent levels, economic conditions may, for some time, warrant keeping the target federal funds rate below levels the Committee views as normal in the longer run.

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**ALTERNATIVE B FOR SEPTEMBER 2015**

1. Information received since the Federal Open Market Committee met in June ~~July~~ indicates ~~suggests~~ that economic activity ~~has been~~ **is** expanding ~~at a moderately moderate pace~~ in recent months. Growth in Household spending ~~and business fixed investment~~ **has have** been ~~increasing~~ moderately, and the housing sector has ~~shown~~ additional improvement ~~improved further~~; however, ~~business fixed investment and net exports stayed~~ **have been** soft. The labor market continued to improve, with solid job gains and declining unemployment. On balance, a ~~range of~~ labor market indicators suggests ~~show~~ that underutilization of labor resources has diminished since early this year. Inflation ~~has~~ continued to run below the Committee's longer-run objective, partly reflecting ~~earlier~~ declines in energy prices and ~~decreasing in~~ prices of non-energy imports. Market-based measures of inflation compensation ~~remain low~~ **moved lower**; survey-based measures of longer-term inflation expectations have remained stable.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. **Recent global economic and financial developments may restrain economic activity somewhat and are likely to put further downward pressure on inflation in the near term. Nonetheless,** the Committee expects that, with appropriate policy accommodation, economic activity will expand at a moderate pace, with labor market indicators continuing to move toward levels the Committee judges consistent with its dual mandate. The Committee continues to see the risks to the outlook for economic activity and the labor market as nearly balanced **but is monitoring developments abroad.** Inflation is anticipated to remain near its recent low level in the near term but the Committee expects inflation to rise gradually toward 2 percent over the medium term as the labor market improves further and the transitory effects of ~~earlier~~ declines in energy and import prices dissipate. The Committee continues to monitor inflation developments closely.
3. To support continued progress toward maximum employment and price stability, the Committee today reaffirmed its view that the current 0 to ¼ percent target range for the federal funds rate remains appropriate. In determining how long to maintain this target range, the Committee will assess progress—both realized and expected—toward its objectives of maximum employment and 2 percent inflation. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. The Committee anticipates that it will be appropriate to raise the target range for the federal funds rate when it has seen some further improvement in the labor market and is reasonably confident that inflation will move back to its 2 percent objective over the medium term.
4. 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 of rolling over maturing Treasury securities at auction. This policy, by keeping the Committee's holdings of longer-term securities at sizable levels, should help maintain accommodative financial conditions.
5. 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. The Committee currently anticipates that, even after employment and inflation are near mandate-consistent levels, economic conditions may, for some time, warrant keeping the target federal funds rate below levels the Committee views as normal in the longer run.

## ALTERNATIVE C FOR SEPTEMBER 2015

1. Information received since the Federal Open Market Committee met in June July indicates that economic activity has been expanding at a moderately moderate pace, on average, in recent months this year. Growth in Household spending and business fixed investment has have been increasing moderately, and the housing sector has shown additional improvement improved further; however, business fixed investment and net exports stayed have been soft. The labor market continued to improve, with solid job gains and declining unemployment. On balance, A range of recent labor market indicators, including solid job gains and lower unemployment, suggests shows further improvement in the labor market and confirms that underutilization of labor resources has diminished since early this year. Inflation has continued to run below the Committee's longer-run objective, partly reflecting earlier declines in energy prices and decreasing in prices of non-energy imports. Although market-based measures of inflation compensation remain low moved lower, survey-based measures of 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 expects that, with appropriate adjustments in the stance of monetary policy accommodation, economic activity will expand at a moderate pace, with labor market indicators continuing to move toward approaching levels the Committee judges consistent with its dual mandate. The Committee is monitoring developments abroad but continues to see the risks to the outlook for economic activity and the labor market as nearly balanced. Inflation is anticipated to remain near its recent low level in the near term, reflecting declines in energy prices and in prices of non-energy imports, but the transitory effects on inflation of these declines will dissipate. With the labor market continuing to improve, and with longer-term inflation expectations remaining stable, the Committee expects is reasonably confident that inflation to will rise gradually toward to 2 percent over the medium term as the labor market improves further and the transitory effects of earlier declines in energy and import prices dissipate. The Committee continues to monitor inflation developments closely.
3. To support continued progress toward maximum employment and price stability, the Committee today reaffirmed its view that the current 0 to ¼ percent target range for the federal funds rate remains appropriate. In light of the considerable further improvement in labor market conditions this year, and the Committee's expectation that inflation will rise, over the medium term, to its 2 percent objective, the Committee decided to raise the target range for the federal funds rate to ¼ to ½ percent. Even with this adjustment, the stance of policy remains highly accommodative.
4. In determining how long to maintain this the timing and size of future adjustments to the target range, the Committee will assess progress—both realized and expected—toward economic conditions relative to its objectives of maximum employment and 2 percent inflation [ , and will take a balanced approach to pursuing those objectives ]. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. The

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~~Committee anticipates that it will be appropriate to raise the target range for the federal funds rate when it has seen further improvement in the labor market and is reasonably confident that inflation will move back to its 2 percent objective over the medium term. The Committee currently anticipates that, even after employment and inflation are near mandate-consistent levels, economic conditions may, for some time, warrant keeping the target federal funds rate below levels the Committee views as normal in the longer run; **however, the actual path of the target for the federal funds rate will depend on the incoming data.**~~

5. 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 of rolling over maturing Treasury securities at auction; **the Committee anticipates doing so | until normalization of the level of the federal funds rate is well under way | at least during the early stages of normalization of the level of the federal funds rate |**. This policy, by keeping the Committee's holdings of longer-term securities at sizable levels, should help maintain accommodative financial conditions.
6. ~~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.~~

**JULY 2015 DIRECTIVE**

Consistent with its statutory mandate, the Federal Open Market Committee seeks monetary and financial conditions that will foster maximum employment and price stability. 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 undertake open market operations as necessary to maintain such conditions. The Committee directs the Desk to maintain its policy of rolling over maturing Treasury securities into new issues and its policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in agency mortgage-backed securities. 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 mortgage-backed securities 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 SEPTEMBER 2015 ALTERNATIVE A AND ALTERNATIVE B**

Consistent with its statutory mandate, the Federal Open Market Committee seeks monetary and financial conditions that will foster maximum employment and price stability. 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 undertake open market operations as necessary to maintain such conditions. The Committee directs the Desk to maintain its policy of rolling over maturing Treasury securities into new issues and its policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in agency mortgage-backed securities. 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 mortgage-backed securities 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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## **IMPLEMENTATION NOTE AND DESK STATEMENT FOR SEPTEMBER 2015 ALTERNATIVE C**

The draft directive for Alternative C, which raises the target range, is included in an implementation note, shown below, that would be released with the FOMC’s policy statement to communicate actions the Federal Reserve was taking to implement the Committee’s decision.<sup>1</sup> This implementation note is the same as the note that was shown in the July Tealbook for Alternative C, except that the dates have been changed from July to September. (Struck-out text indicates language deleted from the current directive; bold, red, underlined text indicates language added to the current directive.) A Desk statement regarding overnight reverse repurchase agreements, also shown below, would be released simultaneously with the implementation note.

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<sup>1</sup> The July Tealbook was the first to include a draft implementation note for Alternative C, and that Tealbook included some explanatory information regarding the evolution of the text of the note since it was first proposed to the Committee in June (see the memo sent to the Committee on June 10, 2015, titled “Proposal for Communicating Details Regarding the Implementation of Monetary Policy at Liftoff and After” by Deborah Leonard and Gretchen Weinbach).

## Implementation Note for September 2015 Alternative C

Release Date: September 17, 2015

### Actions to Implement Monetary Policy

The Federal Reserve has taken the following actions to implement the monetary policy stance adopted and announced by the Federal Open Market Committee on September 17, 2015:

- The Board of Governors of the Federal Reserve System voted [ unanimously ] to raise the interest rate paid on required and excess reserve balances to [ 0.50 ] percent, effective September 18, 2015.
- As part of its policy decision, the Federal Open Market Committee voted to authorize and direct the Open Market Desk at the Federal Reserve Bank of New York, until instructed otherwise, to execute transactions in the System Open Market Account in accordance with the following domestic policy directive:

~~“Consistent with its statutory mandate, the Federal Open Market Committee seeks monetary and financial conditions that will foster maximum employment and price stability. In particular, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. Effective September 18, 2015, the Committee directs the Desk to undertake open market operations as necessary to maintain such conditions~~ **the federal funds rate in a target range of [ ¼ to ½ ] percent, including: (1) overnight reverse repurchase operations (and reverse repurchase operations with maturities of more than one day when necessary to accommodate weekend, holiday, or similar trading conventions) at an offering rate of [ 0.25 ] percent and in amounts limited only by the value of Treasury securities held outright in the System Open Market Account that are available for such operations; and (2) term reverse repurchase operations as authorized in the resolution on term RRP operations approved by the Committee at its March 17-18, 2015, meeting.**

~~“The Committee directs the Desk to maintain its policy of **continue** rolling over maturing Treasury securities into new issues and its policy of **to continue** reinvesting principal payments on all agency debt and agency mortgage-backed securities in agency mortgage-backed securities. 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 mortgage-backed securities 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.~~

More information regarding open market operations may be found on the Federal Reserve Bank of New York’s [website](#)<sup>2</sup>.

- The Board of Governors of the Federal Reserve System voted [ unanimously ] to approve a [ ¼ ] percentage point increase in the primary credit rate to [ 1.00 ] percent, effective September 18, 2015. In taking this action, the Board approved requests submitted by the Boards of Directors of the Federal Reserve Banks of...

This information will be updated as appropriate to reflect decisions of the Federal Open Market Committee or the Board of Governors regarding details of the Federal Reserve’s operational tools and approach used to implement monetary policy.

<sup>2</sup> When this document is released to the public, the blue text will be a link to the relevant page on the FRBNY website.

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## Desk Statement for September 2015 Alternative C

Release Date: September 17, 2015

### Statement Regarding Overnight Reverse Repurchase Agreements

During its meeting on September 16-17, 2015, the Federal Open Market Committee (FOMC) authorized and directed the Open Market Trading Desk (the Desk) at the Federal Reserve Bank of New York, effective September 18, 2015, to undertake open market operations as necessary to maintain the federal funds rate in a target range of  $\frac{1}{4}$  to  $\frac{1}{2}$  percent, including overnight reverse repurchase operations (ON RRP) at an offering rate of 0.25 percent and in amounts limited only by the value of Treasury securities held outright in the System Open Market Account (SOMA) that are available for such operations.

To determine the value of Treasury securities available for such operations, several factors need to be taken into account, as not all Treasury securities held outright in the SOMA will be available for use in ON RRP operations. First, some of the Treasury securities held outright in the SOMA are needed to conduct reverse repurchase agreements with foreign official and international accounts.<sup>1</sup> Second, some Treasury securities are needed to support the [securities lending operations](#) conducted by the Desk. Additionally, buffers are needed to provide for possible changes in demand for these activities and for possible changes in the market value of the SOMA's holdings of Treasury securities.

After estimating the effects of these factors, the Desk anticipates that around \$2 trillion of Treasury securities will be available for ON RRP operations to fulfill the FOMC's domestic policy directive.<sup>2</sup> In the highly unlikely event that the value of bids received in an ON RRP operation exceeds the amount of available collateral, the Desk will allocate awards using a single-price auction based on the "stop-out" rate at which the overall size limit is reached, with all bids below this rate awarded in full at the stop-out rate and all bids at this rate awarded on a pro rata basis at the stop-out rate.

The operations will be open to all eligible RRP counterparties, will settle same-day, and will have an overnight tenor unless a longer term is warranted to accommodate weekend, holiday, and similar trading conventions. Each day, individual counterparties are permitted to submit one proposition in a size not to exceed \$30 billion and at a rate not to exceed the specified offering rate. The operations will take place from 12:45 p.m. to 1:15 p.m. (Eastern Time). Any changes to these terms will be announced with at least one business day's prior notice on the New York Fed's website.

The results of these operations will be posted on the New York Fed's website. The outstanding amount of RRP are reported on the Federal Reserve's H.4.1 statistical release as a factor absorbing reserves in Table 1 and as a liability item in Tables 5 and 6.

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<sup>1</sup> The outstanding amount of RRP with foreign official and international accounts is reported as a factor absorbing reserves in Table 1 in the Federal Reserve's H.4.1 statistical release and as a liability item in Tables 5 and 6 of that release.

<sup>2</sup> This amount will be reduced by any term RRP operations outstanding at the time of each ON RRP operation.