Accessible Version

Meeting of the Federal Open Market Committee
July 31-August 1, 2012 Presentation Materials

Presentation Materials (PDF)

Pages 266 to 304 of the Transcript

Appendix 1: Materials used by Mr. Faust

Presentation on
Simple Rules for Monetary Policy

Jon W. Faust
July 31, 2012

Class I FOMC - Restricted Controlled (FR)

Exhibit 1

Top-left panel
1. Historical Tracking of Taylor (1993)

percent

Period	Federal Funds Rate Target	Taylor Rule
March 1988	6.50	7.57
May 1988	7.00	7.86
June 1988	7.50	7.84
August 1988	8.13	8.29
September 1988	8.13	8.20
November 1988	8.13	8.15
December 1988	8.38	8.45
February 1989	9.00	8.55
March 1989	9.75	8.81
May 1989	9.75	8.87
July 1989	9.56	8.67
August 1989	9.00	8.60
October 1989	9.00	8.32
November 1989	8.50	8.00
December 1989	8.50	7.97
February 1990	8.25	8.55
March 1990	8.25	8.33
May 1990	8.25	8.71
July 1990	8.25	8.90
August 1990	8.00	9.08
October 1990	8.00	9.56
November 1990	7.75	9.01
December 1990	7.25	8.61
February 1991	6.75	7.27
March 1991	6.00	8.07
May 1991	5.75	7.24
July 1991	5.75	6.35
August 1991	5.50	6.60
October 1991	5.25	6.50
November 1991	5.25	6.06
December 1991	4.50	5.62
February 1992	4.00	4.74
March 1992	4.00	5.04
May 1992	3.75	5.31
June 1992	3.75	5.25
August 1992	3.25	4.55
October 1992	3.00	4.45
November 1992	3.00	4.17
December 1992	3.00	4.85
February 1993	3.00	4.69
March 1993	3.00	5.16
May 1993	3.00	4.94

July 1993	3.00	4.91
August 1993	3.00	4.74
September 1993	3.00	4.92
November 1993	3.00	4.91
December 1993	3.00	4.97
February 1994	3.00	5.08
March 1994	3.25	5.07
May 1994	3.75	5.02
July 1994	4.25	5.36
August 1994	4.25	5.65
September 1994	4.75	5.66
November 1994	4.75	6.11
December 1994	5.50	5.92
January 1995	5.50	6.07
March 1995	6.00	5.92
May 1995	6.00	5.96
July 1995	6.00	5.57
August 1995	5.75	5.56
September 1995	5.75	5.57
November 1995	5.75	5.79
December 1995	5.75	5.84
February 1996	5.50	5.37
March 1996	5.25	5.29
May 1996	5.25	5.54
July 1996	5.25	5.58
August 1996	5.25	5.67
September 1996	5.25	5.60
November 1996	5.25	5.62
December 1996	5.25	5.59
February 1997	5.25	5.55
March 1997	5.25	5.71
May 1997	5.50	5.92
July 1997	5.50	5.92
August 1997	5.50	5.94
September 1997	5.50	5.87
November 1997	5.50	5.63
December 1997	5.50	5.55
February 1998	5.50	5.50
March 1998	5.50	5.70
May 1998	5.50	5.53
June 1998	5.50	5.62
August 1998	5.50	5.53
September 1998	5.50	5.74
November 1998	5.00	5.82
December 1998	4.75	6.06
February 1999	4.75	6.32
March 1999	4.75	5.94
May 1999	4.75	5.62
July 1999	4.75	5.86
August 1999	5.00	5.46
October 1999	5.25	5.68
November 1999	5.25	5.67
December 1999	5.50	5.47
February 2000	5.50	5.72
April 2000	6.00	5.79
May 2000	6.00	6.44
June 2000	6.50	6.22
August 2000	6.50	6.03
October 2000	6.50	5.97
November 2000	6.50	6.06
December 2000	6.50	5.78
January 2001	6.00	5.19
March 2001	5.50	5.19
May 2001	4.50	5.20
June 2001	4.00	5.14
August 2001	3.75	5.04
October 2001	3.00	5.01
November 2001	2.50	4.41
December 2001	2.00	4.31

January 2002	1.75	4.14
March 2002	1.75	4.44
May 2002	1.75	4.22
June 2002	1.75	4.21
August 2002	1.75	3.82
September 2002	1.75	4.06
November 2002	1.75	3.60
December 2002	1.25	3.57
January 2003	1.25	3.00
March 2003	1.25	3.03
May 2003	1.25	2.53
June 2003	1.25	2.24
August 2003	1.00	2.05
September 2003	1.00	1.98
October 2003	1.00	2.28
December 2003	1.00	2.33
January 2004	1.00	2.20
March 2004	1.00	2.02
May 2004	1.00	2.76
June 2004	1.00	3.36
August 2004	1.25	3.50
September 2004	1.50	3.28
November 2004	1.75	3.76
December 2004	2.00	3.87
February 2005	2.25	3.91
March 2005	2.50	4.05
May 2005	2.75	4.06
June 2005	3.00	4.02
August 2005	3.25	4.47
September 2005	3.50	4.26
November 2005	3.75	4.11
December 2005	4.00	4.20
January 2006	4.25	4.25
March 2006	4.50	4.26
May 2006	4.75	4.75
June 2006	5.00	4.91
August 2006	5.25	5.72
September 2006	5.25	5.70
October 2006	5.25	5.70
December 2006	5.25	5.52
January 2007	5.25	5.39
March 2007	5.25	5.35
May 2007	5.25	5.06
June 2007	5.25	4.87
August 2007	5.25	4.74
September 2007	5.25	4.77
October 2007	4.75	4.87
December 2007	4.50	4.87

Top-right panel
2. The Case for Simple Rules

- Simple policy rules can,
    - capture most of the benefits of sound policy that policymakers can realistically hope to attain.
    - provide a transparent and predictable link between the policy rate and macroeconomic determinants.
    - provide a useful discipline on the exercise of discretion.

Bottom panel
3. Six Simple Policy Rules

Taylor (1993):	$R_t = 2.25 + \pi_t + 0.5\,(\pi_t - \pi^*) + 0.5 gap_t$
Taylor (1999):	$R_t = 2.25 + \pi_t + 0.5\,(\pi_t - \pi^*) + 1.0 gap_t$
Inertial Taylor (1999):	$R_t = 0.85 R_{t-1} + 0.15\,[2.25 + \pi_t + 0.5\,(\pi_t - \pi^*) + 1.0 gap_t]$
Outcome-based:	$R_t = 0.81 R_{t-1} + 0.19\,[2.25 + \pi_t + 0.73\,(\pi_t - \pi^*) + .94 gap_t + 2.72 \Delta gap_t + 2.05 \Delta R_{t-1}]$
First-difference:	$R_t = R_{t-1} + 0.5\left(\pi_{t+3\mid t} - \pi^*\right) + 0.5 \Delta^4 gap_{t+3\mid t}$
Nominal income targeting:	$R_t = 0.75 R_{t-1} + 0.25\,(2.25 + \pi^* + yn_t - yn_t^*)$

R is the federal funds rate; π is generally the trailing, four-quarter rate of core PCE inflation; in the first-difference rule, π is the projected four-quarter rate of headline inflation; π^* is 2, the Committee's inflation target; and gap is the staff estimate of the output gap. In the nominal income targeting rule, yn_t is 100 times the log of the level of nominal GDP and yn_t^* is 100 times the log of potential nominal GDP, where potential nominal GDP is defined as potential real GDP multiplied by a price target equal to the GDP price index in the fourth quarter of 2007 and growing thereafter at a rate of 2 percent per year.

Exhibit 2

Top panel
1. Output Gap Measurement and the First-Difference Rule

- Output gap is subject to substantial measurement error in practice.
- Prescription of the first-difference rule is largely invariant to measured level of the gap.
- In response to realistic measurement error, a substantial response to level of the output gap probably remains appropriate.

Middle-left panel
2. Policy Simulations: Unemployment Rate

percent

Period	Nominal Income Targeting Rule	Taylor (1999) Rule	NAIRU
2012:Q1	8.241	8.241	6.000
2012:Q2	8.173	8.173	6.000
2012:Q3	8.255	8.253	6.000
2012:Q4	8.276	8.297	6.000
2013:Q1	8.129	8.189	6.000
2013:Q2	8.074	8.187	6.000
2013:Q3	7.968	8.142	6.000
2013:Q4	7.873	8.112	6.000
2014:Q1	7.757	8.063	6.000
2014:Q2	7.629	7.999	6.000
2014:Q3	7.481	7.914	6.000
2014:Q4	7.325	7.816	6.000
2015:Q1	7.107	7.653	5.938
2015:Q2	6.899	7.496	5.875
2015:Q3	6.696	7.340	5.813
2015:Q4	6.504	7.188	5.750
2016:Q1	6.315	7.030	5.688
2016:Q2	6.132	6.867	5.625
2016:Q3	5.957	6.702	5.563
2016:Q4	5.793	6.535	5.500
2017:Q1	5.641	6.370	5.438
2017:Q2	5.505	6.209	5.375
2017:Q3	5.372	6.053	5.313
2017:Q4	5.243	5.903	5.250
2018:Q1	5.183	5.820	5.250
2018:Q2	5.132	5.742	5.250
2018:Q3	5.090	5.669	5.250
2018:Q4	5.057	5.600	5.250
2019:Q1	5.034	5.537	5.250
2019:Q2	5.021	5.481	5.250
2019:Q3	5.019	5.434	5.250
2019:Q4	5.026	5.395	5.250
2020:Q1	5.042	5.364	5.250
2020:Q2	5.064	5.341	5.250
2020:Q3	5.093	5.326	5.250
2020:Q4	5.124	5.314	5.250
2021:Q1	5.155	5.305	ND

Middle-right panel
3. Policy Simulations: Inflation

PCE 4-quarter average
percent

Period	Nominal Income Targeting Rule	Taylor (1999) Rule
2012:Q1	2.334	2.334
2012:Q2	1.697	1.697
2012:Q3	1.413	1.317
2012:Q4	1.574	1.397
2013:Q1	1.431	1.164
2013:Q2	1.749	1.382
2013:Q3	1.930	1.556
2013:Q4	1.938	1.540
2014:Q1	1.900	1.487
2014:Q2	1.851	1.429
2014:Q3	1.828	1.402

2014:Q4	1.829	1.401
2015:Q1	1.875	1.448
2015:Q2	1.922	1.497
2015:Q3	1.973	1.553
2015:Q4	2.027	1.611
2016:Q1	2.047	1.637
2016:Q2	2.069	1.665
2016:Q3	2.091	1.693
2016:Q4	2.109	1.719
2017:Q1	2.133	1.753
2017:Q2	2.156	1.787
2017:Q3	2.176	1.821
2017:Q4	2.194	1.853
2018:Q1	2.201	1.878
2018:Q2	2.204	1.900
2018:Q3	2.204	1.920
2018:Q4	2.201	1.940
2019:Q1	2.195	1.959
2019:Q2	2.188	1.976
2019:Q3	2.178	1.993
2019:Q4	2.166	2.008
2020:Q1	2.153	2.022
2020:Q2	2.139	2.035
2020:Q3	2.123	2.047
2020:Q4	2.106	2.057
2021:Q1	2.088	2.066

Bottom-left panel
4. Distribution of Liftoff Date

probability

Period	Outcome-based Rule	Modified Outcome-based Rule	Inertial Taylor (1999) Rule
2012:Q3	0.156	0.000	0.000
2012:Q4	0.201	0.000	0.038
2013:Q1	0.102	0.080	0.056
2013:Q2	0.097	0.116	0.065
2013:Q3	0.087	0.108	0.075
2013:Q4	0.066	0.104	0.087
2014:Q1	0.052	0.090	0.076
2014:Q2	0.043	0.080	0.069
2014:Q3	0.041	0.076	0.066
2014:Q4	0.035	0.064	0.064
2015:Q1	0.024	0.051	0.060
2015:Q2	0.021	0.047	0.052
2015:Q3	0.013	0.035	0.046
2015:Q4	0.012	0.030	0.040
2016:Q1	0.011	0.025	0.036
2016:Q2	0.009	0.019	0.032
2016:Q3	0.007	0.017	0.028
2016:Q4	0.006	0.015	0.025

Bottom-right panel
5. Likelihood of Return to ELB within 4 Quarters

probability

Period	Outcome-based Rule	Modified Outcome-based Rule	Inertial Taylor (1999) Rule
2012:Q3	0.609	ND	ND
2012:Q4	0.557	ND	0.244
2013:Q1	0.470	0.330	0.188
2013:Q2	0.409	0.307	0.138
2013:Q3	0.377	0.293	0.107
2013:Q4	0.371	0.252	0.104
2014:Q1	0.332	0.228	0.084
2014:Q2	0.283	0.187	0.070
2014:Q3	0.310	0.198	0.053
2014:Q4	0.286	0.195	0.047
2015:Q1	0.265	0.176	0.046
2015:Q2	0.315	0.165	0.041
2015:Q3	0.246	0.150	0.038

2015:Q4	0.219	0.139	0.029
2016:Q1	0.208	0.146	0.020
2016:Q2	0.219	0.121	0.028
2016:Q3	0.257	0.088	0.011
2016:Q4	0.190	0.120	0.016

Note: probability of return to effective lower bound (ELB) conditional on initial liftoff date.

Exhibit 3

Top panel
1. Reasons to Deviate from Standard Simple Rules at Present

- Optimal policy computations (under perfect foresight) suggest maintaining accommodation longer than simple rules suggest.
- Nonstandard structural features of economy at present might warrant deviating.
- Risk management considerations argue for extra accommodation to offset asymmetric risks that bias economy toward effective lower bound.

Middle panel
2. Simple Rules in a Comprehensive Policy Framework

- Research supports that simple rules capture much of what good policy should aspire to in normal times.
- Simple rules could be a useful part of, but are not a substitute for, a comprehensive policy framework.
- Principles of forecast-based targeting could also be a useful part of an overall framework.

Appendix 2: Materials used by Mr. Potter

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

Simon Potter
July 31, 2012

Class II FOMC - Restricted FR

Exhibit 1

Top-left panel
(1)

Title: Ten-Year Sovereign Yields
Series: 10-Year U.K., U.S., Germany, and Japan sovereign yields
Horizon: April 1, 2011 - July 27, 2012
Description: Yields on highly-rated sovereign debt have continued their decline in recent weeks as concerns over the euro-area sovereign and banking crisis have reemerged, though some of these moves have somewhat retraced.

Source: Bloomberg

Top-right panel
(2)

Title: Probability Distribution of First Increase in Federal Funds Target Rate
Series: Average probabilities of first increase in federal funds target rate by half-year, as assessed in June and August Federal Reserve Bank of New York Surveys of primary dealers
Horizon: H2 2012 to H2 2016 or later
Description: Dealer survey respondents place sizable odds on policy remaining on hold for a long period, with the distribution of expectations for the first federal funds target rate increase shifting out even further over the intermeeting period. Dealers now assign the highest probability of a first increase in the target rate to the second half of 2015.

Source: Federal Reserve Bank of New York Survey

Middle-left panel
(3)

Title: Probability of Additional Policy Actions Within One Year
Series: Federal Reserve Bank of New York Survey additional policy action responses by primary dealers, for June and August surveys
Horizon: 1 year
Description: The Desk's primary dealer survey shows that market participants see high probabilities of further policy steps over the coming year, and those probabilities have increased since the June meeting. In particular, the median respondent saw a 65 percent probability of an extension to the forward rate guidance beyond "late 2014," as well as a 65 percent probability of an increase in the size of the SOMA portfolio.

Source: Federal Reserve Bank of New York Survey

Middle-right panel
(4)

Title: Shorter-Term Interest Rates
Series: 2-year Treasury yield; 1-month OIS, 6 months forward
Horizon: July 1, 2011 - July 27, 2012
Description: The two-year Treasury yield and forward rates derived from overnight indexed swaps have moved down notably over the intermeeting period, and the Desk's market contacts attribute these moves primarily to the possibility of a reduction in the interest rate on excess reserves.

Source: Bloomberg, J.P. Morgan

Bottom-left panel
(5)

Title: MBS Option-Adjusted Spread to Treasury
Series: FNMA 30-year current coupon option-adjusted spread to Treasury
Horizon: April 1, 2011 - July 27, 2012
Description: MBS spreads to Treasuries narrowed over the intermeeting period, which many partially attributed to increased expectations for the announcement of an MBS purchase program.

Source: Barclays

Bottom-right panel
(6)

Title: Equity Prices
Series: S&P 500 Index, MSCI Emerging Market Index, Euro Stoxx Index
Horizon: April 1, 2011 - July 27, 2012
Description: Despite increasing concerns about global growth, stock markets were slightly higher over the period, supported in part by monetary policy easing and expectations for additional accommodation in both developed and emerging economies.

Source: Bloomberg

Exhibit 2

Top-left panel
(7)

Title: Euro Area Sovereign Debt Spreads
Series: Spanish and Italian 10-year spreads to Germany
Horizon: April 1, 2011 - July 27, 2012
Description: Spanish and Italian ten-year debt spreads to Germany rose to record or near-record levels during the period, though spreads narrowed sharply toward the end of the period in the wake of comments from ECB President Draghi about the possibility of ECB sovereign debt purchases.

Source: Bloomberg

Top-right panel
(8)

Title: Euro-Dollar Exchange Rate and Risk Reversals
Series: Spot euro-dollar exchange rate, 1-month 25-delta euro-dollar risk reversal
Horizon: April 1, 2011 - July 27, 2012
Description: Negative sentiment towards the euro area has put additional downward pressure on the exchange value of the euro against the dollar, though pricing in options markets does not suggest aggressive positioning for sharp moves lower in the exchange value of the euro against the dollar.

Source: Bloomberg

Middle-left panel
(9)

Title: EONIA Swap Curves
Series: EONIA swap curves on 07/04/12, 07/05/12, and 07/27/12
Horizon: 0 to 4 years to maturity
Description: EONIA swap rates decreased sharply over the period in response to the ECB's policy rate cut. The term structure of EONIA swap rates suggests expectations that accommodative policy is likely to remain in place for a considerable period.

Source: Bloomberg

Middle-right panel
(10)

Title: Two-Year Sovereign Yields
Series: 2-year France, Netherlands, Germany, Denmark, and Switzerland sovereign yields
Horizon: January 1, 2011 - July 27, 2012
Description: The ECB decision also led to notable declines in short-dated yields on European sovereign debt, and two-year yields are now negative for some countries.

Source: Bloomberg

Bottom-left panel
(11)

Title: 3-Month Sterling Libor-OIS
Series: 3-month Sterling Libor-OIS
Horizon: April 1, 2011 - July 27, 2012
Description: U.K. funding spreads have decreased since the Bank of England introduced its Funding for Lending Scheme.

BoE Meeting occurred on same day as ECB meeting.

Source: Bloomberg

Bottom-right panel
(12)

Title: Financial Equity Prices
Series: Euro Stoxx Bank Index; Equal-weighted average of publicly traded USD Libor panel banks as of 2008, ex-Barclays; Barclays
Horizon: May 1, 2012 - July 27, 2012
Description: Barclays' share price fell sharply following the announcement of its Libor-related settlement with U.K. and U.S. authorities. In the immediate aftermath of the announcement, shares of other banks that were in the USD Libor panel in 2008 underperformed the Euro Stoxx Bank Index amid speculation that the investigation into alleged wrongdoing could extend across a number of Libor panel banks.

Source: Bloomberg, Federal Reserve Bank of New York

Exhibit 3

Top-left panel
(13) MEP Operations (Through 07/27/12)

	Purchases	Sales
Par Amount ($ Bil.)	438.0	440.1*
Duration (Years)	10.5	1.6
10-Year Equivalents ($ Bil.)	555.6	83.5
Number of Operations	140	59
Offer-to-Cover (Median)	2.9	6.8

* There have also been $18.6 billion in redemptions to date. Return to table

Source: Federal Reserve Bank of New York

Top-right panel
(14)

Title: Median Monthly Coverage Ratios for MEP Purchase Operations
Series: Offer-to-cover and quality offer-to-cover* ratios for purchase operations under MEP
Horizon: October 2011 - July 2012
Description: Coverage ratios for MEP purchase operations have been declining, with commensurate declines in favorable-to-market (or "quality") propositions.

* Quality propositions are those classified in FRBNY's favorable-to-market bucket, which generally includes offers up to 3 to 6 ticks above market depending on sector. Return to text

Source: Federal Reserve Bank of New York

Middle-left panel
(15)

Title: Amount Accepted in MEP Purchase Operations by Seasoning
Series: Amount accepted in MEP purchase operations, separated between on-the-run, once off-the-run, twice off-the-run, thrice off-the-run, and seasoned issues, as a percent of total by month
Horizon: October 2011 - July 2012
Description: MEP purchases are gradually shifting toward more recently-issued securities over the course of the program, while earlier purchases were concentrated in seasoned securities.

Source: Federal Reserve Bank of New York

Middle-right panel
(16)

Title: Treasury Market Cost of Transacting
Series: 10-day moving average of price impact of simultaneously buying and selling $100 million of benchmark for 10-year and 2-year Treasuries
Horizon: April 1, 2010 - July 27, 2012
Description: Measures of the cost of transacting in Treasury securities remain within recent ranges, indicating that liquidity has held steady.

Source: Brokertec, Federal Reserve Bank of New York

Bottom-left panel
(17) Treasury and MBS Purchasable Room (Over Two-Year Horizon)

($ Billions)	Treasury	MBS
(a) Total Outstanding	12,301	4,806
(b) Total Ex-SOMA	10,645	3,871

(c) Excluded*	8,004	2,582
(d) Float Adjustment	975	294
Purchasable Room (b-c-d)	1,666	995

* Includes structured and non-standard securities, low-duration securities, less-liquid securities, and FIMA holdings. Return to table

Source: Federal Reserve Bank of New York

Bottom-right panel
(18)

Title: Monthly Treasury and MBS Purchases (Par Amounts)
Series: Past monthly Treasury and MBS purchases, and projected purchases under a hypothetical two-year program under which the Federal Reserve would buy all purchasable Treasury and MBS securities as calculated in (17)
Horizon: January 1, 2009 - August 31, 2014
Description: Purchases of $2.6 trillion in securities over two years would imply a pace of about $110 billion per month in net new purchases, which is a pace never before sustained over such a long period.

Source: Federal Reserve Bank of New York

Exhibit 4

Top panel
(19) Treasury and MBS Purchases and Issuance (Monthly Pace Under Hypothetical 2-Year LSAP)

($ Billions)	Treasury	MBS	Total
Purchase Pace	69	63	132
Average Gross Issuance	100	95	195
Percent of Issuance	69%	66%	68%

* Excludes purchases under extended MEP. Return to table

** Includes $22 billion of monthly reinvestments. Return to table

Source: Federal Reserve Bank of New York

Middle-left panel
(20)

Title: Overnight Euro Area Repo Rates
Series: Overnight repo rates for Italian, Spanish, Belgian, French, Dutch, and German collateral
Horizon: June 6, 2012 - July 27, 2012
Description: Following the ECB's decision to cut its deposit facility rate to zero, rates on repos for German, Dutch, Belgian, and French collateral all dropped below zero. Repo rates against Spanish and Italian collateral also dropped to near zero.

Source: Federal Reserve Bank of New York

Middle-right panel
(21)

Title: Euro Portfolio Composition*
Series: SOMA euro portfolio holdings of reverse repos, outright sovereign securities, and official deposits
Horizon: July 6, 2012 and July 27, 2012
Description: Following the decline in euro area repo rates exhibited in (20), the Desk transferred funds from maturing reverse repos to official deposits, leading reverse repo holdings to decline to zero and increasing the amount of SOMA's deposits at official institutions. Some of those deposits are unremunerated. The amount of SOMA's outright holdings of German and French government debt stayed roughly flat.

* SOMA holdings only; does not include ESF. Return to text

Source: Federal Reserve Bank of New York

Appendix 3: Materials used by Mr. Wilcox

Material for
Forecast Summary

David Wilcox
July 31, 2012

Class II FOMC - Restricted (FR)

Forecast Summary

Confidence Intervals Based on Tealbook Track Record

Top-left panel
Real GDP

Percent change, annual rate

Period	July TB	June TB	70% confidence interval, lower bound	70% confidence interval, upper bound
2011:Q2	1.34	ND	ND	ND
2011:Q3	1.81	1.81	ND	ND
2011:Q4	2.95	2.95	ND	ND
2012:Q1	1.87	2.16	1.87	1.87
2012:Q2	0.95	1.46	0.78	1.12
2012:Q3	1.51	1.88	0.92	2.13
2012:Q4	1.76	1.91	0.90	2.70
2013:Q1	1.55	1.72	0.42	2.84
2013:Q2	2.05	2.06	0.73	3.62
2013:Q3	2.25	2.34	0.79	3.96
2013:Q4	2.55	2.48	1.05	4.35
2014:Q1	2.84	2.58	1.25	4.63
2014:Q2	3.04	2.85	1.34	4.76
2014:Q3	3.33	3.32	1.50	5.01
2014:Q4	3.51	3.53	1.52	5.12

Top-right panel
Unemployment Rate

Percent

Period	July TB	June TB	70% confidence interval, lower bound	70% confidence interval, upper bound
2011:Q2	9.10	ND	ND	ND
2011:Q3	9.10	ND	ND	ND
2011:Q4	8.70	ND	ND	ND
2012:Q1	8.20	8.24	8.20	8.20
2012:Q2	8.17	8.17	8.13	8.22
2012:Q3	8.25	8.18	8.08	8.41
2012:Q4	8.30	8.16	7.99	8.57
2013:Q1	8.19	8.11	7.74	8.60
2013:Q2	8.19	8.06	7.59	8.72
2013:Q3	8.15	8.01	7.40	8.79
2013:Q4	8.12	7.99	7.24	8.86
2014:Q1	8.07	8.00	7.09	8.91
2014:Q2	8.01	7.94	6.93	8.95
2014:Q3	7.93	7.84	6.78	8.97
2014:Q4	7.84	7.73	6.67	8.97

Middle-left panel
PCE Prices

Percent change, annual rate

Period	July TB	June TB	70% confidence interval, lower bound	70% confidence interval, upper bound
2011:Q2	3.30	ND	ND	ND
2011:Q3	2.34	2.34	ND	ND
2011:Q4	1.17	1.17	ND	ND
2012:Q1	2.55	2.38	2.55	2.55
2012:Q2	0.75	0.57	0.65	0.86
2012:Q3	0.78	0.15	0.42	1.16
2012:Q4	1.46	1.54	0.89	2.09
2013:Q1	1.57	1.62	0.83	2.37
2013:Q2	1.59	1.56	0.69	2.58
2013:Q3	1.47	1.51	0.51	2.48
2013:Q4	1.39	1.50	0.38	2.43
2014:Q1	1.35	1.52	0.28	2.47
2014:Q2	1.36	1.51	0.24	2.48
2014:Q3	1.36	1.50	0.24	2.48
2014:Q4	1.38	1.52	0.27	2.49

Middle-right panel
PCE Prices Excluding Food and Energy

Percent change, annual rate

Period	July TB	June TB	70% confidence interval, lower bound	70% confidence interval, upper bound
2011:Q2	2.26	ND	ND	ND
2011:Q3	2.06	2.06	ND	ND

2011:Q4	1.29	1.29	ND	ND
2012:Q1	2.32	2.11	2.32	2.32
2012:Q2	1.81	1.72	1.75	1.89
2012:Q3	1.60	1.56	1.36	1.85
2012:Q4	1.47	1.49	1.09	1.85
2013:Q1	1.57	1.58	1.05	2.08
2013:Q2	1.64	1.62	0.99	2.30
2013:Q3	1.61	1.62	0.88	2.34
2013:Q4	1.62	1.63	0.85	2.39
2014:Q1	1.60	1.64	0.79	2.40
2014:Q2	1.60	1.64	0.75	2.43
2014:Q3	1.60	1.64	0.72	2.43
2014:Q4	1.60	1.64	0.71	2.44

Bottom-left panel
Revisions: Real GDP

Four-quarter percent change

Period	Current	July TB
2008:Q4	-3.32	-3.32
2009:Q1	-4.19	-4.55
2009:Q2	-4.58	-5.03
2009:Q3	-3.34	-3.73
2009:Q4	-0.08	-0.54
2010:Q1	1.86	2.17
2010:Q2	2.51	3.30
2010:Q3	2.80	3.51
2010:Q4	2.39	3.14
2011:Q1	1.82	2.24
2011:Q2	1.88	1.63
2011:Q3	1.55	1.46
2011:Q4	1.97	1.61
2012:Q1	2.45	1.99
2012:Q2	2.21	1.90

Bottom-right panel
Personal Saving Rate

Percent of disposable personal income

Period	Current	July TB
2009:Q1	5.50	5.70
2009:Q2	5.80	6.20
2009:Q3	3.80	4.40
2009:Q4	3.80	4.30
2010:Q1	4.60	4.90
2010:Q2	5.60	5.60
2010:Q3	5.40	5.60
2010:Q4	4.80	5.20
2011:Q1	5.10	5.00
2011:Q2	4.60	4.80
2011:Q3	3.90	4.60
2011:Q4	3.40	4.20
2012:Q1	3.60	3.70
2012:Q2	4.00	4.09

Appendix 4: Materials used by Chairman Bernanke

Material for
The Consensus Forecast Exercise

July 31-August 1, 2012

Table 1. Proposal for a Consensus Forecast

	2012		2012	2013	2014	Longer run
	H1	H2				

Real GDP	1.7	2.0	1.8	2.5	3.2	2.5
June SEP median	*1.9*	*2.2*	*2.0*	*2.6*	*3.2*	*2.5*
July Tealbook	*1.4*	*1.6*	*1.5*	*2.1*	*3.2*	*2.5*
Total PCE prices	1.6	1.6	1.6	1.8	1.8	2.0
June SEP median	*1.5*	*1.2*	*1.4*	*1.8*	*1.9*	*2.0*
July Tealbook	*1.7*	*1.1*	*1.4*	*1.5*	*1.4*	*2.0*
Core PCE prices	2.0	1.7	1.8	1.8	1.8	
June SEP median	*1.9*	*1.7*	*1.8*	*1.8*	*1.9*	
July Tealbook	*2.1*	*1.5*	*1.8*	*1.6*	*1.6*	
Unemployment rate[1]	8.2	8.2	8.2	7.9	7.6	5.5
June SEP median	*8.2*	*8.0*	*8.1*	*7.8*	*7.4*	*5.5*
July Tealbook	*8.2*	*8.3*	*8.3*	*8.1*	*7.8*	*5.3*
Federal funds rate[2]	0.1	0.1	0.1	0.1	0.5	4.0
June SEP median	*0.1*	*0.1*	*0.1*	*0.1*	*0.5*	*4.2*
July Tealbook	*0.1*	*0.1*	*0.1*	*0.1*	*0.5*	*4.3*

1. Level in final quarter of period indicated. Return to table

2. Level at end of period indicated. Return to table

Table 2. Forecast Paths Under Alternative Monetary Policy Assumptions

	2012		2012	2013	2014	2015	2016	2017
	H1	H2						
Real GDP growth								
Late-2014 liftoff	1.7	2.0	1.8	2.5	3.2	3.4	3.4	3.3
Mid-2015 liftoff		2.2	1.9	2.7	3.3	3.5	3.2	3.1
Plus $1 trillion LSAP (Alternative A)		2.2	1.9	2.9	3.4	3.5	3.2	3.0
Plus $1 trillion LSAP (greater duration)		2.4	2.0	3.1	3.6	3.5	3.1	2.9
Unemployment rate (q4 level)								
Late-2014 liftoff	8.2	8.2	8.2	7.9	7.6	7.0	6.4	5.9
Mid-2015 liftoff		8.2	8.2	7.8	7.4	6.8	6.2	5.8
Plus $1 trillion LSAP (Alternative A)		8.2	8.2	7.7	7.2	6.6	6.0	5.7
Plus $1 trillion LSAP (greater duration)		8.2	8.2	7.6	7.1	6.4	5.8	5.6
Headline PCE inflation								
Late-2014 liftoff	1.6	1.6	1.6	1.8	1.8	1.9	2.0	2.0
Mid-2015 liftoff		1.7	1.6	1.8	1.9	2.0	2.0	2.0
Plus $1 trillion LSAP (Alternative A)		1.8	1.7	1.9	1.9	2.1	2.1	2.1
Plus $1 trillion LSAP (greater duration)		1.8	1.7	2.0	2.0	2.2	2.2	2.2
Core PCE inflation								
Late-2014 liftoff	2.0	1.7	1.8	1.8	1.8	1.9	2.0	2.0
Mid-2015 liftoff		1.7	1.9	1.9	1.9	1.9	2.0	2.0
Plus $1 trillion LSAP (Alternative A)		1.8	1.9	1.9	1.9	2.0	2.1	2.1
Plus $1 trillion LSAP (greater duration)		1.9	2.0	2.0	2.0	2.1	2.2	2.1
Federal funds rate								
Late-2014 liftoff	.1	.1	.1	.1	.5	1.4	2.3	3.2
Mid-2015 liftoff		.1	.1	.1	.1	.8	2.5	3.4
Plus $1 trillion LSAP (Alternative A)		.1	.1	.1	.1	.8	2.5	3.8
Plus $1 trillion LSAP (greater duration)		.1	.1	.1	.1	.8	2.5	4.0

Alternative LSAP programs

- The "Alternative A" program involves purchasing $600 billion of Treasury securities and $400 billion of agency MBS by the end of the third quarter of 2013. The maturity distribution of the purchased securities is similar to that under the second LSAP program.
- The "greater duration" program involves purchasing $750 billion of Treasury securities and $250 billion of agency MBS by late 2013. The maturity distribution of the purchased Treasury securities is similar to that under the MEP (that is, longer than under the second LSAP program).
- Estimated term premium effects of the "greater duration" programs are approximately twice as large as those under the "alternative A" program.

Exhibit 1. Proposed Consensus Forecast

Top-left panel
1. Real GDP

4-quarter percent change

Period	Proposed consensus forecast	June SEP central tendency, lower bound	June SEP central tendency, upper bound	90% confidence band, lower bound	90% confidence band, upper bound
2012:Q1	2.06				
2012:Q2	2.04			2.04	2.04
2012:Q3	2.05			1.26	3.13
2012:Q4	1.84	1.9	2.4	0.42	3.29
2013:Q1	1.79			-0.10	3.77
2013:Q2	2.09			-0.19	4.50
2013:Q3	2.29			-0.18	5.00
2013:Q4	2.50	2.2	2.8	-0.20	5.32
2014:Q1	2.72			-0.25	5.71
2014:Q2	2.87			-0.25	5.92
2014:Q3	3.04			-0.30	6.11
2014:Q4	3.18	3.0	3.5	-0.36	6.16

Top-right panel
2. Unemployment Rate

percent

Period	Proposed consensus forecast	June SEP central tendency, lower bound	June SEP central tendency, upper bound	90% confidence band, lower bound	90% confidence band, upper bound
2012:Q1	8.20				
2012:Q2	8.17			8.17	8.17
2012:Q3	8.20			7.87	8.54
2012:Q4	8.19	8.0	8.2	7.59	8.80
2013:Q1	8.04			7.22	8.90
2013:Q2	8.02			7.01	9.10
2013:Q3	7.97			6.76	9.24
2013:Q4	7.92	7.5	8.0	6.57	9.38
2014:Q1	7.86			6.41	9.49
2014:Q2	7.79			6.23	9.61
2014:Q3	7.70			6.04	9.69
2014:Q4	7.59	7.0	7.7	5.94	9.75

Bottom-left panel
3. PCE Prices

4-quarter percent change

Period	Proposed consensus forecast	June SEP central tendency, lower bound	June SEP central tendency, upper bound	90% confidence band, lower bound	90% confidence band, upper bound
2012:Q1	2.33				
2012:Q2	1.67			1.67	1.67
2012:Q3	1.41			0.90	1.97
2012:Q4	1.60	1.2	1.7	0.70	2.61
2013:Q1	1.43			0.24	2.81
2013:Q2	1.74			0.29	3.43
2013:Q3	1.85			0.29	3.60
2013:Q4	1.79	1.5	2.0	0.18	3.59
2014:Q1	1.77			0.06	3.60
2014:Q2	1.75			0.02	3.58
2014:Q3	1.76			-0.04	3.56
2014:Q4	1.80	1.5	2.0	-0.10	3.64

Bottom-right panel
4. Core PCE Prices

4-quarter percent change

Period	Proposed consensus forecast	June SEP central tendency, lower bound	June SEP central tendency, upper bound	90% confidence band, lower bound	90% confidence band, upper bound
2012:Q1	1.99				
2012:Q2	1.85			1.85	1.85
2012:Q3	1.77			1.47	2.16
2012:Q4	1.85	1.7	2.0	1.33	2.54
2013:Q1	1.73			0.96	2.66
2013:Q2	1.75			0.76	2.95
2013:Q3	1.76			0.65	3.05

2013:Q4	1.81	1.6	2.0	0.59	3.14
2014:Q1	1.82			0.53	3.19
2014:Q2	1.81			0.47	3.19
2014:Q3	1.80			0.39	3.18
2014:Q4	1.80	1.6	2.0	0.38	3.19

Exhibit 2. Static Policy Rule Prescriptions

Top panel
Federal Funds Rate

percent

Period	Path consistent with median June SEP submissions	Taylor 1999	Inertial Taylor 1999	Outcome-based rule
2012:Q1	0.10	0.10	0.10	0.10
2012:Q2	0.15	0.15	0.15	0.15
2012:Q3	0.15	0.13	0.13	0.13
2012:Q4	0.12	0.13	0.13	0.13
2013:Q1	0.12	0.13	0.13	0.13
2013:Q2	0.12	0.13	0.13	0.13
2013:Q3	0.12	0.13	0.13	0.13
2013:Q4	0.12	0.13	0.13	0.13
2014:Q1	0.13	0.13	0.13	0.13
2014:Q2	0.13	0.13	0.13	0.16
2014:Q3	0.13	0.13	0.13	0.27
2014:Q4	0.50	0.13	0.13	0.43
2015:Q1	0.76	0.35	0.16	0.63
2015:Q2	0.98	0.60	0.23	0.84
2015:Q3	1.18	0.87	0.32	1.08
2015:Q4	1.40	1.14	0.45	1.32
2016:Q1	1.62	1.40	0.59	1.57
2016:Q2	1.85	1.65	0.75	1.82
2016:Q3	2.09	1.90	0.92	2.07
2016:Q4	2.32	2.14	1.10	2.31
2017:Q1	2.56	2.38	1.30	2.56
2017:Q2	2.79	2.62	1.49	2.79
2017:Q3	3.01	2.83	1.69	3.01
2017:Q4	3.19	3.01	1.89	3.19
2018:Q1	3.33	3.16	2.08	3.34
2018:Q2	3.45	3.28	2.26	3.45
2018:Q3	3.55	3.39	2.43	3.55
2018:Q4	3.63	3.48	2.59	3.63

Bottom-left panel
Projected Output Gap

Period	Percent
2012:Q1	-4.35
2012:Q2	-4.42
2012:Q3	-4.54
2012:Q4	-4.55
2013:Q1	-4.55
2013:Q2	-4.54
2013:Q3	-4.42
2013:Q4	-4.31
2014:Q1	-4.19
2014:Q2	-4.03
2014:Q3	-3.82
2014:Q4	-3.58
2015:Q1	-3.36
2015:Q2	-3.13
2015:Q3	-2.91
2015:Q4	-2.68
2016:Q1	-2.46
2016:Q2	-2.23
2016:Q3	-2.01
2016:Q4	-1.78
2017:Q1	-1.56
2017:Q2	-1.33

2017:Q3	-1.13
2017:Q4	-0.96
2018:Q1	-0.82
2018:Q2	-0.70
2018:Q3	-0.59
2018:Q4	-0.50

Bottom-right panel
Projected Core Inflation

Period	Percent
2012:Q1	1.99
2012:Q2	1.85
2012:Q3	1.77
2012:Q4	1.85
2013:Q1	1.73
2013:Q2	1.75
2013:Q3	1.76
2013:Q4	1.81
2014:Q1	1.82
2014:Q2	1.81
2014:Q3	1.80
2014:Q4	1.80
2015:Q1	1.81
2015:Q2	1.82
2015:Q3	1.85
2015:Q4	1.88
2016:Q1	1.90
2016:Q2	1.92
2016:Q3	1.94
2016:Q4	1.95
2017:Q1	1.96
2017:Q2	1.97
2017:Q3	1.97
2017:Q4	1.98
2018:Q1	1.98
2018:Q2	1.99
2018:Q3	1.99
2018:Q4	1.99

Note: Policy rule prescriptions conditioned on projections for the output gap and inflation without allowing for feedback. The projections for real activity and inflation assume that the onset of tightening begins in late 2014 (consistent with the median June SEP submission) and that the Committee does not undertake any additional expansion of its securities holdings.

Exhibit 3. Proposed Consensus Forecast Under Alternative Policy Assumptions Versus Optimal Control

Top panel
Federal Funds Rate

percent

Period	Consensus forecast (late-2014 liftoff)	Consensus forecast (mid-2015 liftoff)	Consensus forecast (mid-2015 liftoff and "Alternative A" LSAP)	Consensus forecast (mid-2015 liftoff and "greater duration" LSAP)	Optimal control
2012:Q1	0.10	0.10	0.10	0.10	0.10
2012:Q2	0.15	0.15	0.15	0.15	0.15
2012:Q3	0.15	0.13	0.13	0.13	0.16
2012:Q4	0.12	0.13	0.13	0.13	0.15
2013:Q1	0.12	0.13	0.13	0.13	0.14
2013:Q2	0.12	0.13	0.13	0.13	0.13
2013:Q3	0.12	0.13	0.13	0.13	0.12
2013:Q4	0.12	0.16	0.16	0.16	0.12
2014:Q1	0.13	0.13	0.13	0.13	0.12
2014:Q2	0.13	0.13	0.13	0.13	0.13
2014:Q3	0.13	0.13	0.13	0.13	0.14
2014:Q4	0.50	0.13	0.13	0.13	0.15
2015:Q1	0.76	0.14	0.14	0.14	0.17
2015:Q2	0.98	0.20	0.20	0.20	0.19
2015:Q3	1.18	0.42	0.42	0.42	0.22
2015:Q4	1.40	0.76	0.76	0.76	0.28

2016:Q1	1.62	1.21	1.21	1.21	0.46
2016:Q2	1.85	1.70	1.70	1.70	0.75
2016:Q3	2.09	2.16	2.16	2.16	1.09
2016:Q4	2.32	2.54	2.54	2.54	1.48
2017:Q1	2.56	2.84	2.93	3.01	1.89
2017:Q2	2.79	3.10	3.26	3.43	2.28
2017:Q3	3.01	3.29	3.52	3.75	2.66
2017:Q4	3.19	3.44	3.69	3.95	3.00
2018:Q1	3.33	3.54	3.79	4.05	3.30
2018:Q2	3.45	3.61	3.84	4.08	3.54
2018:Q3	3.55	3.66	3.85	4.06	3.74
2018:Q4	3.63	3.69	3.84	4.01	3.88

Bottom-left panel
Unemployment Rate

percent

Period	Consensus forecast (late-2014 liftoff)	Consensus forecast (mid-2015 liftoff)	Consensus forecast (mid-2015 liftoff and "Alternative A" LSAP)	Consensus forecast (mid-2015 liftoff and "greater duration" LSAP)	Optimal control
2012:Q1	8.20	8.20	8.20	8.20	8.20
2012:Q2	8.17	8.17	8.17	8.17	8.17
2012:Q3	8.20	8.20	8.20	8.20	8.20
2012:Q4	8.19	8.18	8.17	8.16	8.16
2013:Q1	8.04	8.02	7.99	7.96	7.97
2013:Q2	8.02	7.98	7.93	7.88	7.89
2013:Q3	7.97	7.91	7.83	7.75	7.76
2013:Q4	7.92	7.84	7.73	7.63	7.64
2014:Q1	7.86	7.77	7.63	7.50	7.50
2014:Q2	7.79	7.68	7.52	7.37	7.36
2014:Q3	7.70	7.56	7.39	7.22	7.19
2014:Q4	7.59	7.44	7.25	7.06	7.01
2015:Q1	7.44	7.27	7.07	6.87	6.79
2015:Q2	7.29	7.11	6.89	6.69	6.57
2015:Q3	7.14	6.94	6.72	6.51	6.36
2015:Q4	6.99	6.78	6.56	6.35	6.16
2016:Q1	6.84	6.63	6.41	6.20	5.97
2016:Q2	6.69	6.49	6.27	6.07	5.78
2016:Q3	6.54	6.35	6.14	5.95	5.62
2016:Q4	6.39	6.22	6.03	5.84	5.46
2017:Q1	6.24	6.09	5.91	5.74	5.33
2017:Q2	6.09	5.96	5.80	5.65	5.21
2017:Q3	6.00	5.90	5.76	5.62	5.16
2017:Q4	5.93	5.85	5.72	5.60	5.14
2018:Q1	5.86	5.80	5.70	5.60	5.15
2018:Q2	5.81	5.77	5.68	5.60	5.17
2018:Q3	5.76	5.73	5.67	5.60	5.21
2018:Q4	5.72	5.71	5.66	5.61	5.25

Bottom-right panel
PCE Prices

percent

Period	Consensus forecast (late-2014 liftoff)	Consensus forecast (mid-2015 liftoff)	Consensus forecast (mid-2015 liftoff and "Alternative A" LSAP)	Consensus forecast (mid-2015 liftoff and "greater duration" LSAP)	Optimal control
2012:Q1	2.33	2.33	2.33	2.33	2.33
2012:Q2	1.67	1.67	1.67	1.67	1.67
2012:Q3	1.41	1.43	1.45	1.48	1.52
2012:Q4	1.60	1.63	1.67	1.70	1.79
2013:Q1	1.43	1.48	1.53	1.58	1.72
2013:Q2	1.74	1.79	1.86	1.93	2.12
2013:Q3	1.85	1.90	1.97	2.03	2.23
2013:Q4	1.79	1.85	1.91	1.98	2.20
2014:Q1	1.77	1.83	1.90	1.97	2.19
2014:Q2	1.75	1.81	1.88	1.96	2.17
2014:Q3	1.76	1.82	1.89	1.97	2.18
2014:Q4	1.80	1.85	1.93	2.01	2.22
2015:Q1	1.84	1.89	1.97	2.06	2.25
2015:Q2	1.87	1.92	2.00	2.09	2.27

2015:Q3	1.90	1.96	2.04	2.13	2.30
2015:Q4	1.92	1.98	2.06	2.15	2.31
2016:Q1	1.94	2.00	2.08	2.17	2.32
2016:Q2	1.95	2.02	2.10	2.19	2.32
2016:Q3	1.96	2.03	2.11	2.20	2.32
2016:Q4	1.97	2.04	2.12	2.21	2.32
2017:Q1	1.97	2.05	2.13	2.21	2.31
2017:Q2	1.98	2.05	2.12	2.20	2.30
2017:Q3	1.98	2.04	2.12	2.19	2.29
2017:Q4	1.99	2.04	2.11	2.17	2.27
2018:Q1	1.99	2.03	2.09	2.15	2.25
2018:Q2	1.99	2.02	2.08	2.13	2.22
2018:Q3	1.99	2.02	2.06	2.10	2.19
2018:Q4	1.99	2.01	2.04	2.07	2.15

Appendix 5: Materials used by Vice Chairman Dudley

Top-left panel
Spain: 10-Year Bond Yield

Series: 10-year Spanish bond yield
Horizon: January 1, 2010 - July 24, 2012
Description: The yield on longer-term Spanish debt has steadily increased since the beginning of 2010, with a spike up in recent months.

Source: Bloomberg

Top-right panel
Euro Stoxx Bank Price Index

Series: Euro Stoxx Bank Index, indexed to 12/31/1991
Horizon: January 1, 2010 - July 24, 2012
Description: Euro area bank equity prices have steadily declined since early 2010, reaching a cyclical low in recent sessions.

Source: Bloomberg

Bottom-left panel
Euro Area Purchasing Managers Indexes

Series: Diffusion index, composite of manufacturing and services Euro Area Purchasing Managers Indexes, seasonally adjusted
Horizon: January 2010 - June 2012
Description: Euro area economic data has deteriorated since early 2010, with the composite Purchasing Managers Index showing sub-50 readings since early 2012.

Includes Germany, France, Spain, Italy, Ireland, Greece, Austria and Netherlands.

Source: Markit

Bottom-right panel
Italy and Spain: Nonresident Holdings of Public Debt Securities

Series: Nonresident percent of total holdings of public debt securities for Italy and Spain[1]
Horizon: January 2010 - April 2012
Description: Italian and Spanish public debt has become increasingly concentrated in the hands of domestic investors, as evidenced by steady declines in nonresident holdings of this debt since 2010.

1. Does not include subnational government securities Return to text

Source: Spanish Treasury, Bank of Italy

Appendix 6: Materials used by Mr. English

Material for
FOMC Briefing on Monetary Policy Alternatives

Bill English
August 1, 2012

Class I FOMC - Restricted Controlled (FR)

Experimental Consensus Forecast

Top-left panel
Federal Funds Rate

Percent

Period	Late-2014 liftoff	Mid-2015 liftoff and Alternative A LSAP
2012:Q1	0.10	0.10
2012:Q2	0.15	0.15
2012:Q3	0.15	0.13
2012:Q4	0.13	0.13
2013:Q1	0.13	0.13
2013:Q2	0.13	0.13
2013:Q3	0.13	0.13
2013:Q4	0.13	0.13
2014:Q1	0.13	0.13
2014:Q2	0.13	0.13
2014:Q3	0.13	0.13
2014:Q4	0.50	0.13
2015:Q1	0.76	0.14
2015:Q2	0.98	0.20
2015:Q3	1.18	0.42
2015:Q4	1.40	0.76
2016:Q1	1.62	1.21
2016:Q2	1.85	1.70
2016:Q3	2.09	2.16
2016:Q4	2.32	2.54
2017:Q1	2.56	2.93
2017:Q2	2.79	3.26
2017:Q3	3.01	3.52
2017:Q4	3.19	3.69
2018:Q1	3.33	3.79
2018:Q2	3.45	3.84
2018:Q3	3.55	3.85
2018:Q4	3.63	3.84
2019:Q1	3.69	3.82
2019:Q2	3.74	3.80
2019:Q3	3.78	3.77
2019:Q4	3.81	3.75
2020:Q1	3.84	3.74
2020:Q2	3.86	3.72
2020:Q3	3.89	3.72
2020:Q4	3.90	3.71

Top-right panel
Total Federal Reserve Assets

$ billion

Period	Late-2014 liftoff	Mid-2015 liftoff and Alternative A LSAP
January 2006	838.22	838.22
February 2006	846.57	846.57
March 2006	842.70	842.70
April 2006	843.45	843.45
May 2006	854.89	854.89
June 2006	855.24	855.24
July 2006	853.15	853.15
August 2006	852.79	852.79
September 2006	847.52	847.52
October 2006	861.19	861.19
November 2006	864.68	864.68
December 2006	877.14	877.14
January 2007	869.56	869.56
February 2007	881.27	881.27
March 2007	870.55	870.55
April 2007	895.78	895.78

May 2007	882.78	882.78
June 2007	872.45	872.45
July 2007	880.30	880.30
August 2007	874.48	874.48
September 2007	882.08	882.08
October 2007	886.93	886.93
November 2007	883.73	883.73
December 2007	917.93	917.93
January 2008	882.22	882.22
February 2008	893.07	893.07
March 2008	899.34	899.34
April 2008	889.70	889.70
May 2008	894.72	894.72
June 2008	919.19	919.19
July 2008	915.71	915.71
August 2008	913.23	913.23
September 2008	1510.71	1510.71
October 2008	2082.32	2082.32
November 2008	2138.98	2138.98
December 2008	2240.95	2240.95
January 2009	1862.76	1862.76
February 2009	1911.31	1911.31
March 2009	2088.41	2088.41
April 2009	2047.12	2047.12
May 2009	2083.71	2083.71
June 2009	1998.47	1998.47
July 2009	1996.03	1996.03
August 2009	2081.33	2081.33
September 2009	2144.16	2144.16
October 2009	2169.98	2169.98
November 2009	2206.83	2206.83
December 2009	2237.14	2237.14
January 2010	2251.80	2251.80
February 2010	2283.98	2283.98
March 2010	2310.54	2310.54
April 2010	2334.03	2334.03
May 2010	2340.15	2340.15
June 2010	2334.30	2334.30
July 2010	2329.37	2329.37
August 2010	2307.91	2307.91
September 2010	2300.45	2300.45
October 2010	2300.88	2300.88
November 2010	2342.33	2342.33
December 2010	2428.42	2428.42
January 2011	2461.86	2461.86
February 2011	2540.19	2540.19
March 2011	2633.18	2633.18
April 2011	2701.99	2701.99
May 2011	2790.76	2790.76
June 2011	2870.76	2870.76
July 2011	2868.61	2868.61
August 2011	2857.40	2857.40
September 2011	2853.17	2853.17
October 2011	2833.18	2833.18
November 2011	2816.78	2816.78
December 2011	2920.65	2920.65
January 2012	2923.72	2923.72
February 2012	2928.05	2928.05
March 2012	2859.00	2859.00
April 2012	2859.00	2859.00
May 2012	2849.06	2849.06
June 2012	2862.42	2862.42
July 2012	2845.08	2848.13
August 2012	2838.38	2879.85
September 2012	2831.08	2923.92
October 2012	2833.04	2992.94
November 2012	2836.33	3067.51
December 2012	2841.24	3143.85
January 2013	2842.87	3220.99

February 2013	2845.05	3298.47
March 2013	2847.43	3375.90
April 2013	2849.54	3452.39
May 2013	2851.32	3528.48
June 2013	2852.72	3604.18
July 2013	2854.26	3678.94
August 2013	2855.82	3753.43
September 2013	2857.45	3827.84
October 2013	2859.08	3857.91
November 2013	2860.04	3874.76
December 2013	2860.30	3877.88
January 2014	2860.04	3877.70
February 2014	2859.34	3877.05
March 2014	2858.34	3875.99
April 2014	2857.32	3874.57
May 2014	2856.38	3872.96
June 2014	2855.48	3871.51
July 2014	2849.51	3870.05
August 2014	2838.44	3868.48
September 2014	2826.28	3866.75
October 2014	2814.18	3864.86
November 2014	2802.15	3862.90
December 2014	2790.26	3856.22
January 2015	2779.55	3844.81
February 2015	2768.92	3817.07
March 2015	2758.33	3795.60
April 2015	2747.80	3765.38
May 2015	2737.34	3728.02
June 2015	2721.09	3694.14
July 2015	2704.83	3664.50
August 2015	2688.59	3628.73
September 2015	2672.33	3605.53
October 2015	2656.07	3582.53
November 2015	2640.56	3528.33
December 2015	2624.30	3499.83
January 2016	2600.89	3463.50
February 2016	2547.22	3389.38
March 2016	2506.60	3331.55
April 2016	2461.83	3270.02
May 2016	2405.56	3199.20
June 2016	2375.00	3155.74
July 2016	2347.77	3114.68
August 2016	2317.47	3070.41
September 2016	2293.68	3033.72
October 2016	2270.20	2996.78
November 2016	2229.14	2941.16
December 2016	2200.53	2898.81
January 2017	2174.72	2858.62
February 2017	2139.74	2802.89
March 2017	2112.09	2756.53
April 2017	2082.64	2712.10
May 2017	2035.55	2651.07
June 2017	2008.82	2611.59
July 2017	1984.67	2574.06
August 2017	1948.25	2522.14
September 2017	1927.30	2488.29
October 2017	1908.94	2456.85
November 2017	1875.62	2410.29
December 2017	1846.08	2368.19
January 2018	1814.66	2324.19
February 2018	1768.85	2258.27
March 2018	1738.89	2209.31
April 2018	1734.52	2162.11
May 2018	1742.14	2090.95
June 2018	1749.78	2048.08
July 2018	1757.44	2000.66
August 2018	1765.14	1941.55
September 2018	1772.86	1906.78
October 2018	1780.60	1862.26

November 2018	1788.37	1791.57
December 2018	1796.17	1797.97
January 2019	1804.06	1805.86
February 2019	1811.98	1813.77
March 2019	1819.93	1821.70
April 2019	1827.90	1829.66
May 2019	1835.89	1837.64
June 2019	1843.91	1845.65
July 2019	1851.95	1853.68
August 2019	1860.02	1861.74
September 2019	1868.12	1869.82
October 2019	1876.24	1877.93
November 2019	1884.38	1886.06
December 2019	1892.55	1894.22
January 2020	1900.81	1902.46
February 2020	1909.09	1910.73
March 2020	1917.39	1919.02
April 2020	1925.71	1927.34
May 2020	1934.07	1935.68
June 2020	1942.45	1944.04
July 2020	1950.86	1952.43
August 2020	1959.29	1960.84
September 2020	1967.75	1969.28
October 2020	1976.23	1977.74
November 2020	1984.73	1986.23
December 2020	1993.26	1994.75

Note: Balance sheet projections correspond to Alternatives A and B in Tealbook B.

Bottom-left panel
Unemployment Rate

Percent

Period	Late-2014 liftoff	Mid-2015 liftoff and Alternative A LSAP
2012:Q1	8.20	8.20
2012:Q2	8.17	8.17
2012:Q3	8.20	8.20
2012:Q4	8.19	8.17
2013:Q1	8.04	7.99
2013:Q2	8.02	7.93
2013:Q3	7.97	7.83
2013:Q4	7.92	7.73
2014:Q1	7.86	7.63
2014:Q2	7.79	7.52
2014:Q3	7.70	7.39
2014:Q4	7.59	7.25
2015:Q1	7.44	7.07
2015:Q2	7.29	6.89
2015:Q3	7.14	6.72
2015:Q4	6.99	6.56
2016:Q1	6.84	6.41
2016:Q2	6.69	6.27
2016:Q3	6.54	6.14
2016:Q4	6.39	6.03
2017:Q1	6.24	5.91
2017:Q2	6.09	5.80
2017:Q3	6.00	5.76
2017:Q4	5.93	5.72
2018:Q1	5.86	5.70
2018:Q2	5.81	5.68
2018:Q3	5.76	5.67
2018:Q4	5.72	5.66
2019:Q1	5.69	5.65
2019:Q2	5.66	5.65
2019:Q3	5.64	5.64
2019:Q4	5.62	5.63
2020:Q1	5.60	5.62
2020:Q2	5.58	5.62
2020:Q3	5.57	5.61
2020:Q4	5.56	5.60

Bottom-right panel
PCE Inflation

Four-quarter average
Percent

Period	Late-2014 liftoff	Mid-2015 liftoff and Alternative A LSAP
2012:Q1	2.33	2.33
2012:Q2	1.67	1.67
2012:Q3	1.41	1.45
2012:Q4	1.60	1.67
2013:Q1	1.43	1.53
2013:Q2	1.74	1.86
2013:Q3	1.85	1.97
2013:Q4	1.79	1.91
2014:Q1	1.77	1.90
2014:Q2	1.75	1.88
2014:Q3	1.76	1.89
2014:Q4	1.80	1.93
2015:Q1	1.84	1.97
2015:Q2	1.87	2.00
2015:Q3	1.90	2.04
2015:Q4	1.92	2.06
2016:Q1	1.94	2.08
2016:Q2	1.95	2.10
2016:Q3	1.96	2.11
2016:Q4	1.97	2.12
2017:Q1	1.97	2.13
2017:Q2	1.98	2.12
2017:Q3	1.98	2.12
2017:Q4	1.99	2.11
2018:Q1	1.99	2.09
2018:Q2	1.99	2.08
2018:Q3	1.99	2.06
2018:Q4	1.99	2.04
2019:Q1	2.00	2.02
2019:Q2	2.00	2.00
2019:Q3	2.00	1.98
2019:Q4	2.00	1.97
2020:Q1	2.00	1.96
2020:Q2	2.00	1.94
2020:Q3	2.00	1.93
2020:Q4	2.00	1.93

June FOMC Statement

1. Information received since the Federal Open Market Committee met in April suggests that the economy has been expanding moderately this year. However, growth in employment has slowed in recent months, and the unemployment rate remains elevated. Business fixed investment has continued to advance. Household spending appears to be rising at a somewhat slower pace than earlier in the year. Despite some signs of improvement, the housing sector remains depressed. Inflation has declined, mainly reflecting lower prices of crude oil and gasoline, and 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 economic growth to remain moderate over coming quarters and then to pick up very gradually. Consequently, the Committee anticipates that the unemployment rate will decline only slowly toward levels that it judges to be consistent with its dual mandate. Furthermore, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee anticipates that inflation over the medium term will run at or below the rate that it judges most consistent with its dual mandate.
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 expects to maintain a highly accommodative stance for monetary policy. In particular, the Committee decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant exceptionally low levels for the federal funds rate at least through late 2014.
4. The Committee also decided to continue through the end of the year its program to extend the average maturity of its holdings of securities. Specifically, the Committee intends to purchase Treasury securities with remaining maturities of 6 years to 30 years at the current pace and to sell or redeem an equal amount of Treasury securities with remaining maturities of approximately 3 years or less. This continuation of the maturity extension program should put downward pressure on longer-term interest rates and help to make broader financial conditions more accommodative. 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. The Committee is prepared to take further action as appropriate to promote a stronger economic recovery and sustained improvement in labor market conditions in a context of price stability.

[Note: In the August FOMC Statement Alternatives, emphasis (strike-through) indicates strike-through text in the original document, and strong emphasis (bold) indicates bold red underlined text in the original document.]

August FOMC Statement--Alternative A

1. Information received since the Federal Open Market Committee met in ~~April~~ **June** suggests that ~~the economy has been expanding moderately~~ **economic activity decelerated somewhat over the first half of** this year. ~~However,~~ Growth in employment has ~~slowed~~ **been slow** in recent months, and the unemployment rate remains elevated. Business fixed investment has continued to advance. Household spending ~~appears to be~~ **has been** rising at a somewhat slower pace than earlier in the year. Despite some signs of improvement, the housing sector remains depressed. Inflation has ~~declined~~ **been subdued in recent months**, mainly reflecting lower prices of crude oil and gasoline, and 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 economic growth to remain moderate over coming quarters and then to pick up very gradually. Consequently, the Committee anticipates that the unemployment rate will decline only slowly toward levels that it judges to be consistent with its dual mandate. Furthermore, strains in global financial markets **[** continue to **| and issues relating to U.S. fiscal policy]** pose significant downside risks to the economic outlook. The Committee anticipates that inflation over the medium term will run at or below the rate that it judges most consistent with its dual mandate.
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 ~~also~~ decided to ~~continue through the end of the year its program to extend the average maturity of its holdings of securities~~ **begin a new large-scale asset purchase program**. Specifically, the Committee **now** intends to ~~purchase Treasury securities with remaining maturities of 6 years to 30 years at the current pace and to sell or redeem an equal amount of Treasury securities with remaining maturities of approximately 3 years or less~~ **increase its holdings of longer-term Treasury securities at a pace of about [$45] billion per month and of agency mortgage-backed securities at a pace of about [$30] billion per month. The Committee anticipates continuing to add to its holdings at least until it observes sustained improvement in labor market conditions, as long as projected medium-term inflation is close to its mandate-consistent level and longer-term inflation expectations remain stable.** ~~This continuation of the maturity extension program~~ **The increase in the Committee's securities holdings** should put downward pressure on longer-term interest rates**, support mortgage markets,** and help to make broader financial conditions more accommodative. **This new purchase program replaces the previously announced maturity extension program; therefore, the Committee is ending its sales of shorter-term Treasury securities and reinstituting its policy of rolling over maturing Treasury securities at auction.** 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. The Committee **will regularly review the pace and composition of its securities purchases in light of the economic outlook and its ongoing assessments of the efficacy and costs of the program, and** is prepared to ~~take further action~~ **make adjustments** as appropriate to promote a stronger economic recovery and sustained improvement in labor market conditions in a context of price stability.

OR

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 ~~also~~ decided to ~~continue through the end of the year its program to extend the average maturity of its holdings of securities~~ **begin a new large-scale asset purchase program**. Specifically, the Committee **now** intends to purchase ~~Treasury securities with remaining maturities of 6 years to 30 years at the current pace and to sell or redeem an equal amount of Treasury securities with remaining maturities of approximately 3 years or less~~ **[$600 billion] of longer-term Treasury securities and [$400 billion] of agency mortgage-backed securities by the end of the third quarter of 2013, a combined pace of about [$75] billion a month**. ~~This continuation of the maturity extension program~~ **This action** should put downward pressure on longer-term interest rates**, support mortgage markets,** and help to make broader financial conditions more accommodative. **This new purchase program replaces the previously announced maturity extension program; therefore, the Committee is ending its sales of shorter-term Treasury securities and reinstituting its policy of rolling over maturing Treasury securities at auction.** 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. The Committee **will regularly review the size and composition of its balance sheet in light of the outlook for inflation and labor market conditions and** is prepared to ~~take further action~~ **make adjustments** as appropriate to promote a stronger economic recovery and sustained improvement in labor market conditions in a context of price stability.
4. The Committee **also** decided today to keep the target range for the federal funds rate at 0 to 1/4 percent ~~and~~. **To support sustained improvement in labor market conditions and to help ensure that inflation is close to its mandate-consistent level over the medium run,** the Committee expects to maintain a highly accommodative stance for monetary policy **as the economic recovery strengthens**. In particular, **the Committee** currently anticipates that ~~economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant~~ exceptionally low levels for the federal funds rate **are likely to be warranted** at least through ~~late 2014~~ **mid-2015**.

Note: If policymakers decide that it is appropriate to reduce the remuneration rate on reserve balances, the Board of Governors would issue an accompanying statement that might read:

In a related action, the Board of Governors voted today to reduce the interest rate paid on required and excess reserve balances from 25 basis points to 15 basis points effective with the reserve maintenance period that begins on August 9, 2012.

August FOMC Statement--Alternative B

1. Information received since the Federal Open Market Committee met in ~~April~~ **June** suggests that ~~the economy has been expanding moderately~~ **economic activity decelerated somewhat over the first half of** this year. ~~However,~~ Growth in employment has ~~slowed~~ **been slow** in recent months, and the unemployment rate remains elevated. Business fixed investment has continued to advance. Household spending ~~appears to be~~ **has been** rising at a somewhat slower pace than earlier in the year. Despite some **further** signs of improvement, the housing sector remains depressed. Inflation has declined **since earlier this year**, mainly reflecting lower prices of crude oil and gasoline, and 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 economic growth to remain moderate over coming quarters and then to pick up very gradually. Consequently, the Committee anticipates that the unemployment rate will decline only slowly toward levels that it judges to be consistent with its dual mandate. Furthermore, strains in global financial markets **[** continue to **| and issues relating to U.S. fiscal policy]** pose significant downside risks to the economic outlook. The Committee anticipates that inflation over the medium term will run at or below the rate that it judges most consistent with its dual mandate.
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 expects to maintain a highly accommodative stance for monetary policy. In particular, the Committee decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that economic conditions--including low rates of resource utilization and

a subdued outlook for inflation over the medium run--are likely to warrant exceptionally low levels for the federal funds rate at least through **[** late 2014 **| mid-2015]**.

4. The Committee also decided to continue through the end of the year its program to extend the average maturity of its holdings of securities **as announced in June,** ~~Specifically, the Committee intends to purchase Treasury securities with remaining maturities of 6 years to 30 years at the current pace and to sell or redeem an equal amount of Treasury securities with remaining maturities of approximately 3 years or less. This continuation of the maturity extension program should put downward pressure on longer-term interest rates and help to make broader financial conditions more accommodative. The Committee~~ **and it** is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. The Committee ~~is prepared to take further action as appropriate~~ **will closely monitor incoming information on economic and financial developments and will provide additional accommodation as needed** to promote a stronger economic recovery and sustained improvement in labor market conditions in a context of price stability.

August FOMC Statement--Alternative C

1. Information received since the Federal Open Market Committee met in ~~April~~ **June** suggests that the economy has been expanding moderately this year. ~~However, growth in employment has slowed in recent months, and the unemployment rate remains elevated.~~ **Employment has shown further gains.** ~~Business fixed investment~~ **Private domestic demand** has continued to advance, ~~Household spending appears to be rising at a somewhat slower pace than earlier in the year. Despite~~ **and** the housing sector ~~remains depressed~~ **has shown** some signs of improvement. Inflation has declined **since earlier this year**, mainly reflecting lower prices of crude oil and gasoline, and 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 economic growth to remain moderate over coming quarters and then to pick up very gradually. Consequently, the Committee anticipates that the unemployment rate will decline only slowly toward levels that it judges to be consistent with its dual mandate. Furthermore, strains in global financial markets **[** continue to **| and issues relating to U.S. fiscal policy]** pose significant downside risks to the economic outlook. The Committee anticipates that inflation over the medium term will run at ~~or below~~ **about** the rate that it judges most consistent with its dual mandate.

3. To support ~~a stronger~~ **the** economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee expects to maintain a highly accommodative stance for monetary policy. In particular, the Committee decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant exceptionally low levels for the federal funds rate at least through late **[2013 |** 2014 **]**.

OR

3′. To support a ~~stronger~~ **sustainable** economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee expects to maintain a highly accommodative stance for monetary policy. In particular, the Committee decided today to keep the target range for the federal funds rate at 0 to 1/4 percent ~~and currently anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant exceptionally low levels for the federal funds rate at least through late 2014.~~ **As rates of resource utilization rise toward levels consistent with maximum employment, the Committee eventually will need to make monetary policy less accommodative in order to ensure that the economy expands at a sustainable pace and to prevent inflation from persistently exceeding its longer-run objective. In determining the appropriate time to increase its target for the federal funds rate, the Committee will consider a range of factors, including actual and projected labor market conditions, the medium-term outlook for inflation, and the risks to the achievement of the Committee's objectives.**

4. The Committee also decided to continue through the end of the year its program to extend the average maturity of its holdings of securities **as announced in June** ~~Specifically, the Committee intends to purchase Treasury securities with remaining maturities of 6 years to 30 years at the current pace and to sell or redeem an equal amount of Treasury securities with remaining maturities of approximately 3 years or less. This continuation of the maturity extension program should put downward pressure on longer-term interest rates and help to make broader financial conditions more accommodative. The Committee is maintaining~~ **and to maintain** its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. The Committee **will regularly review the size and composition of its securities holdings and** is prepared to ~~take further action as appropriate~~ **adjust those holdings as necessary** to promote **maximum employment and** ~~a stronger economic recovery and sustained improvement in labor market conditions in a context of~~ price stability.

June 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 1/4 percent. The Committee directs the Desk to continue the maturity extension program it began in September to purchase, by the end of June 2012, Treasury securities with remaining maturities of 6 years to 30 years with a total face value of $400 billion, and to sell Treasury securities with remaining maturities of 3 years or less with a total face value of $400 billion. Following the conclusion of these purchases, the Committee directs the Desk to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about $267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining maturities of approximately 3 years or less with a total face value of about $267 billion. For the duration of this program, the Committee directs the Desk to suspend its current policy of rolling over maturing Treasury securities into new issues. The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. These actions should maintain the total face value of domestic securities at approximately $2.6 trillion. The Committee directs the Desk to engage in dollar roll 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.

[Note: In the August 2012 Directive Alternatives, emphasis (strike-through) indicates strike-through text in the original document, and strong emphasis (bold) indicates bold red underlined text in the original document.]

August 2012 Directive--Alternative A

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 1/4 percent. The Committee directs the Desk to ~~continue the maturity extension program it began in September to purchase, by the end of June 2012, Treasury securities with remaining maturities of 6 years to 30 years with a total face value of $400 billion, and to sell Treasury securities with remaining maturities of 3 years or less with a total face value of $400 billion. Following the conclusion of these purchases, the Committee directs the Desk 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~~ **begin a new large-scale asset purchase program**. **This program replaces the previously announced maturity extension program. Specifically, [the Desk is directed to purchase longer-term Treasury securities at a pace of about $45 billion per month and to purchase agency mortgage-backed securities at a pace of about $30 billion per month. | the Desk is directed to purchase $600 billion of longer-term Treasury securities and $400 billion of agency mortgage-backed securities by the end of the third quarter of 2013.]** ~~For the duration of this program, the Committee directs the Desk to suspend its current~~ **The desk is also directed to reinstate the** policy of rolling over maturing Treasury securities into new issues. The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. ~~These actions should maintain the total face value of domestic securities at approximately $2.6 trillion.~~ 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.

August 2012 Directive--Alternative B

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 1/4 percent. The Committee directs the Desk to continue the maturity extension program it ~~began~~ **announced** in **June** ~~September to purchase, by the end of June 2012, Treasury securities with remaining maturities of 6 years to 30 years with a total face value of $400 billion, and to sell or redeem Treasury securities with remaining maturities of 3 years or less with a total face value of $400 billion. Following the conclusion of these purchases, the Committee directs the Desk~~ to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about $267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining maturities of approximately 3 years or less with a total face value of about $267 billion. For the duration of this program, the Committee directs the Desk to suspend its current policy of rolling over maturing Treasury securities into new issues. The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. These actions should maintain the total face value of domestic securities at approximately $2.6 trillion. The Committee directs the Desk to engage in dollar roll 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.

August 2012 Directive--Alternative C

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 1/4 percent. The Committee directs the Desk to continue the maturity extension program it ~~began~~ **announced** in **June** ~~September to purchase, by the end of June 2012, Treasury securities with remaining maturities of 6 years to 30 years with a total face value of $400 billion, and to sell or redeem Treasury securities with remaining maturities of 3 years or less with a total face value of $400 billion. Following the conclusion of these purchases, the Committee directs the Desk~~ to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about $267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining maturities of approximately 3 years or less with a total face value of about $267 billion. For the duration of this program, the Committee directs the Desk to suspend its current policy of rolling over maturing Treasury securities into new issues. The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. These actions should maintain the total face value of domestic securities at approximately $2.6 trillion. The Committee directs the Desk to engage in dollar roll 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.

Appendix 7: Materials used by Ms. Yellen

Questions regarding
Experimental Forecast Exercise

August 1, 2012

Class I FOMC - Restricted Controlled (FR)

Questions

1. Do you think the general approach used in this exercise would be helpful in elucidating a forecast that appropriately captures the consensus view of the Committee? What elements would you suggest be modified in future experiments?

2. Should the Committee proceed with a second experiment? If so, do you have any specific suggestions regarding the design of that experiment and when it should take place?
3. If the Committee proceeds with a second experiment, to what extent should participants be expected to provide input to the Chairman in advance of his initial preparation of the consensus forecast? Should a compilation of participants' initial input to the Chairman be circulated to all Committee participants; if so, should it be with or without attribution?