

## Accessible Version

# Meeting of the Federal Open Market Committee December 11-12, 2012 Presentation Materials

[Presentation Materials \(PDF\)](#)

Pages 216 to 260 of the Transcript

## Appendix 1: Materials used by Mr. Potter

Material for

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

Simon Potter

December 11, 2012

**Class II FOMC - Restricted (FR)**

### Exhibit 1

#### Top-left panel

##### (1) Changes in Domestic Yields and Equities

	10-Year Treasury Yield (BPS)	S&P 500 Index (Percent)
Around Election (11/6 - 11/15)	-15.79	-5.25
Total on Period	-13.57	0.35

Source: Bloomberg

#### Top-right panel

##### (2) Changes in Global Yields and Equities Over Intermeeting Period

	Change in 10-Year Yield	Change in Equity Index
U.S.	-14 bps	+0.4%
U.K.	-8 bps	+2.0%
Germany	-28 bps	+4.8%
Japan	-8 bps	+5.7%
FTSE All-World Ex-US	N/A	+2.9%

Source: Bloomberg

#### Middle-left panel

##### (3) Implied Federal Funds Rate Path\*

Percent

Date	As of 10/23/12	As of 12/07/12
7 December 2012	0.144	0.158
7 March 2013	0.135	0.140
7 June 2013	0.140	0.135
1 October 2013	0.156	0.126
1 January 2014	0.185	0.129
1 April 2014	0.227	0.143
1 July 2014	0.278	0.167
1 October 2014	0.336	0.202
1 January 2015	0.404	0.245
1 April 2015	0.475	0.289
1 July 2015	0.566	0.350
1 October 2015	0.675	0.428
1 April 2016	0.934	0.650
1 October 2016	1.210	0.917

\* Derived from federal funds and Eurodollar futures. [Return to text](#)

Source: Federal Reserve Bank of New York, Bloomberg

#### Middle-right panel

##### (4) Probability of FOMC Adopting Thresholds For First Rate Hike

(Average Forecasts)

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	Quantitative Thresholds	Qualitative Thresholds
December Meeting	13.81	13.45
January Meeting	19.43	17.05
March Meeting	33.10	28.64
Within 2 Years	73.36	73.69

Source: Federal Reserve Bank of New York Survey

## Bottom-left panel (5) Expected Outcome and Effects of Fiscal Cliff\*

(Average Probabilities and Median Effects)

	Probability of Scenario	Effect on 10-Year Treasury
Current Law	19%	-40 bps
No Fiscal Restraint	18%	+40 bps
Alternative Scenario**	55%	+5 bps

\* Based on CBO policy scenarios, which do not encompass entire range of possible outcomes. Probabilities of these scenarios add to 92%. [Return to text](#)

\*\* Compromise scenario with extensions of some measures. [Return to table](#)

Source: Federal Reserve Bank of New York Survey

## Bottom-right panel (6) 3-Month 25-Delta Strangle Prices

Percent/Year

Date	S&P 500 Index	EUR-USD
1 June 2011	32.96	25.51
2 June 2011	33.06	25.41
3 June 2011	33.56	24.55
6 June 2011	34.39	24.39
7 June 2011	33.41	23.72
8 June 2011	34.54	24.54
9 June 2011	32.84	24.42
10 June 2011	34.12	25.02
13 June 2011	35.26	25.42
14 June 2011	33.62	25.20
15 June 2011	37.38	27.89
16 June 2011	39.34	27.96
17 June 2011	38.53	26.82
20 June 2011	36.84	27.09
21 June 2011	34.59	26.67
22 June 2011	34.71	26.22
23 June 2011	36.33	27.43
24 June 2011	37.61	27.42
27 June 2011	36.27	28.06
28 June 2011	35.18	27.17
29 June 2011	32.86	26.45
30 June 2011	31.75	25.48
1 July 2011	30.42	24.98
4 July 2011	30.42	24.60
5 July 2011	30.96	24.87
6 July 2011	31.80	25.38
7 July 2011	30.82	24.46
8 July 2011	31.78	25.02
11 July 2011	34.94	27.84
12 July 2011	35.49	28.02
13 July 2011	35.94	26.98
14 July 2011	37.36	27.08
15 July 2011	36.25	27.48
18 July 2011	37.54	28.37
19 July 2011	34.94	28.16
20 July 2011	34.74	27.63
21 July 2011	33.20	26.30
22 July 2011	32.84	25.30
25 July 2011	34.95	24.74
26 July 2011	35.42	24.59
27 July 2011	38.58	25.56
28 July 2011	39.36	25.81
29 July 2011	39.96	26.33
1 August 2011	38.55	26.88
2 August 2011	40.70	27.43

3 August 2011	40.68	27.04
4 August 2011	48.48	28.69
5 August 2011	53.80	28.50
8 August 2011	62.02	30.20
9 August 2011	58.60	30.80
10 August 2011	60.95	30.54
11 August 2011	56.62	30.90
12 August 2011	56.10	28.98
15 August 2011	50.92	27.64
16 August 2011	51.10	27.54
17 August 2011	50.63	27.58
18 August 2011	62.25	29.12
19 August 2011	63.80	28.91
22 August 2011	62.84	28.64
23 August 2011	57.50	28.22
24 August 2011	56.04	28.23
25 August 2011	59.53	28.14
26 August 2011	57.36	27.57
29 August 2011	52.21	27.07
30 August 2011	52.49	26.81
31 August 2011	53.80	26.33
1 September 2011	53.26	26.90
2 September 2011	56.54	27.93
5 September 2011	56.54	30.58
6 September 2011	58.35	32.15
7 September 2011	54.82	30.48
8 September 2011	56.29	30.56
9 September 2011	64.04	33.36
12 September 2011	65.11	33.92
13 September 2011	61.84	32.79
14 September 2011	58.00	32.09
15 September 2011	57.05	30.31
16 September 2011	55.77	31.29
19 September 2011	56.90	32.69
20 September 2011	56.45	33.09
21 September 2011	58.34	33.80
22 September 2011	68.92	36.13
23 September 2011	66.49	36.48
26 September 2011	65.01	36.55
27 September 2011	61.58	34.39
28 September 2011	64.76	34.13
29 September 2011	67.00	33.63
30 September 2011	68.68	33.73
3 October 2011	73.57	34.90
4 October 2011	72.88	34.65
5 October 2011	65.46	33.66
6 October 2011	64.35	32.33
7 October 2011	62.25	31.51
10 October 2011	59.92	30.20
11 October 2011	57.78	30.64
12 October 2011	53.25	30.00
13 October 2011	53.74	30.60
14 October 2011	50.12	29.87
17 October 2011	53.79	30.51
18 October 2011	52.18	30.83
19 October 2011	56.95	30.96
20 October 2011	56.98	31.98
21 October 2011	53.87	31.65
24 October 2011	50.40	31.14
25 October 2011	52.18	30.49
26 October 2011	50.89	30.53
27 October 2011	44.09	28.56
28 October 2011	43.99	27.83
31 October 2011	48.54	28.90
1 November 2011	55.62	32.13
2 November 2011	53.74	31.38
3 November 2011	50.83	31.46
4 November 2011	52.16	30.56
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8 November 2011	49.01	30.45
9 November 2011	57.85	33.10
10 November 2011	55.73	33.15
11 November 2011	52.64	31.81
14 November 2011	54.83	32.20
15 November 2011	53.09	32.69
16 November 2011	56.04	32.88
17 November 2011	60.34	32.71
18 November 2011	58.63	32.09
21 November 2011	59.68	32.69
22 November 2011	58.77	32.86
23 November 2011	61.23	33.97
24 November 2011	61.23	33.66
25 November 2011	62.64	34.07
28 November 2011	59.62	33.51
29 November 2011	57.37	33.26
30 November 2011	52.68	32.52
1 December 2011	51.18	31.92
2 December 2011	51.34	31.70
5 December 2011	52.05	30.72
6 December 2011	51.59	30.70
7 December 2011	53.39	30.98
8 December 2011	55.47	31.88
9 December 2011	51.14	31.57
12 December 2011	53.10	31.49
13 December 2011	52.21	31.84
14 December 2011	52.69	32.62
15 December 2011	50.86	31.16
16 December 2011	50.46	29.61
19 December 2011	50.57	29.57
20 December 2011	46.51	29.33
21 December 2011	44.83	29.48
22 December 2011	44.11	29.51
23 December 2011	43.66	29.14
26 December 2011	43.66	29.20
27 December 2011	43.79	29.17
28 December 2011	46.27	29.28
29 December 2011	44.95	30.34
30 December 2011	45.42	30.22
2 January 2012	45.42	30.27
3 January 2012	44.07	29.04
4 January 2012	42.85	28.87
5 January 2012	41.70	28.88
6 January 2012	40.85	28.26
9 January 2012	40.73	26.75
10 January 2012	39.79	25.90
11 January 2012	40.35	26.44
12 January 2012	40.24	25.74
13 January 2012	41.86	26.15
16 January 2012	41.86	25.99
17 January 2012	41.53	25.80
18 January 2012	39.70	25.59
19 January 2012	38.66	25.31
20 January 2012	37.60	25.14
23 January 2012	36.72	24.83
24 January 2012	36.67	25.32
25 January 2012	35.06	25.31
26 January 2012	36.53	24.61
27 January 2012	35.47	24.95
30 January 2012	36.62	25.77
31 January 2012	36.77	25.49
1 February 2012	35.58	24.83
2 February 2012	35.04	24.47
3 February 2012	33.54	24.47
6 February 2012	33.99	25.33
7 February 2012	33.50	24.61
8 February 2012	34.20	23.74
9 February 2012	34.93	23.21
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13 February 2012	36.30	23.57
14 February 2012	39.00	24.01
15 February 2012	39.48	25.11
16 February 2012	36.88	24.93
17 February 2012	35.87	24.51
20 February 2012	35.87	23.65
21 February 2012	36.27	22.79
22 February 2012	35.70	22.58
23 February 2012	33.68	21.96
24 February 2012	34.01	21.99
27 February 2012	34.09	22.51
28 February 2012	34.52	22.31
29 February 2012	34.44	22.67
1 March 2012	34.01	22.76
2 March 2012	33.93	22.96
5 March 2012	34.74	22.90
6 March 2012	38.09	23.46
7 March 2012	36.28	22.91
8 March 2012	34.38	22.19
9 March 2012	33.82	22.29
12 March 2012	33.23	22.02
13 March 2012	31.95	22.08
14 March 2012	33.74	22.38
15 March 2012	33.33	21.79
16 March 2012	32.48	21.10
19 March 2012	32.18	21.09
20 March 2012	32.48	21.08
21 March 2012	31.18	21.10
22 March 2012	32.93	21.33
23 March 2012	30.76	20.85
26 March 2012	29.30	20.51
27 March 2012	30.15	20.42
28 March 2012	31.69	20.46
29 March 2012	31.11	20.61
30 March 2012	30.70	20.47
2 April 2012	30.17	20.26
3 April 2012	31.48	20.38
4 April 2012	32.30	21.65
5 April 2012	32.85	21.94
6 April 2012	32.85	21.36
9 April 2012	34.32	21.73
10 April 2012	38.57	22.21
11 April 2012	37.82	22.13
12 April 2012	35.44	21.39
13 April 2012	36.41	21.72
16 April 2012	37.13	21.93
17 April 2012	34.47	21.42
18 April 2012	34.68	21.16
19 April 2012	35.74	21.15
20 April 2012	34.60	20.80
23 April 2012	35.85	21.29
24 April 2012	35.11	20.83
25 April 2012	32.62	20.46
26 April 2012	31.23	20.23
27 April 2012	31.06	19.73
30 April 2012	32.46	19.79
1 May 2012	31.06	20.07
2 May 2012	31.98	20.71
3 May 2012	32.82	20.19
4 May 2012	34.92	20.18
7 May 2012	34.62	21.14
8 May 2012	35.09	21.70
9 May 2012	36.82	22.50
10 May 2012	35.57	21.80
11 May 2012	36.40	21.76
14 May 2012	38.99	23.43
15 May 2012	40.82	24.23
16 May 2012	41.41	24.73
Loading [MathJax]/jax/output/HTML-CSS/jax.js	42.72	25.43

18 May 2012	44.96	26.34
21 May 2012	41.66	24.85
22 May 2012	41.40	24.40
23 May 2012	42.26	26.52
24 May 2012	41.76	26.04
25 May 2012	41.79	26.44
28 May 2012	41.79	25.76
29 May 2012	39.94	25.79
30 May 2012	42.07	26.84
31 May 2012	41.84	26.88
1 June 2012	47.16	26.83
4 June 2012	47.02	26.64
5 June 2012	45.17	26.81
6 June 2012	42.37	26.26
7 June 2012	39.71	24.86
8 June 2012	39.77	25.58
11 June 2012	41.76	25.81
12 June 2012	41.98	26.20
13 June 2012	44.60	25.57
14 June 2012	42.50	25.70
15 June 2012	38.95	25.39
18 June 2012	36.58	24.61
19 June 2012	35.10	23.21
20 June 2012	35.44	22.50
21 June 2012	38.36	23.08
22 June 2012	36.19	22.63
25 June 2012	38.20	22.85
26 June 2012	37.49	22.53
27 June 2012	37.78	22.40
28 June 2012	38.79	22.71
29 June 2012	34.66	21.23
2 July 2012	33.37	21.34
3 July 2012	32.60	21.23
4 July 2012	32.60	21.51
5 July 2012	33.80	21.56
6 July 2012	34.31	22.08
9 July 2012	34.83	21.99
10 July 2012	36.01	21.95
11 July 2012	35.82	21.87
12 July 2012	35.51	22.53
13 July 2012	33.38	21.35
16 July 2012	33.72	21.05
17 July 2012	32.68	20.86
18 July 2012	32.30	20.10
19 July 2012	32.26	19.92
20 July 2012	33.44	20.23
23 July 2012	35.77	21.77
24 July 2012	38.49	22.82
25 July 2012	37.29	22.82
26 July 2012	34.70	22.03
27 July 2012	32.91	21.58
30 July 2012	34.28	22.02
31 July 2012	35.06	22.11
1 August 2012	34.74	22.44
2 August 2012	35.09	22.38
3 August 2012	32.86	20.47
6 August 2012	32.32	20.39
7 August 2012	32.42	19.72
8 August 2012	32.13	20.25
9 August 2012	31.46	20.09
10 August 2012	31.25	20.03
13 August 2012	31.20	19.66
14 August 2012	32.08	19.78
15 August 2012	32.38	20.44
16 August 2012	32.04	20.25
17 August 2012	31.19	19.97
20 August 2012	31.77	20.10
21 August 2012	32.46	19.97
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23 August 2012	33.94	19.59
24 August 2012	32.77	19.73
27 August 2012	33.44	19.91
28 August 2012	33.72	20.49
29 August 2012	34.24	21.00
30 August 2012	35.33	21.58
31 August 2012	35.13	21.04
3 September 2012	35.13	20.83
4 September 2012	35.01	20.40
5 September 2012	34.11	20.52
6 September 2012	31.95	19.51
7 September 2012	30.20	18.22
10 September 2012	30.65	18.22
11 September 2012	31.37	18.28
12 September 2012	30.97	18.00
13 September 2012	28.30	18.18
14 September 2012	29.17	18.47
17 September 2012	29.89	18.34
18 September 2012	29.01	18.53
19 September 2012	28.18	17.83
20 September 2012	28.57	18.37
21 September 2012	28.03	18.20
24 September 2012	27.94	18.39
25 September 2012	29.29	18.40
26 September 2012	30.99	18.71
27 September 2012	28.82	18.13
28 September 2012	29.60	17.93
1 October 2012	30.28	17.90
2 October 2012	30.31	17.80
3 October 2012	29.58	17.84
4 October 2012	28.92	17.75
5 October 2012	28.82	17.61
8 October 2012	29.22	17.98
9 October 2012	30.54	17.95
10 October 2012	30.84	17.61
11 October 2012	29.97	17.41
12 October 2012	30.17	17.27
15 October 2012	29.53	17.26
16 October 2012	29.15	17.31
17 October 2012	28.70	17.50
18 October 2012	28.84	17.46
19 October 2012	30.52	17.23
22 October 2012	31.29	17.15
23 October 2012	32.49	17.32
24 October 2012	32.98	17.34
25 October 2012	32.51	17.23
26 October 2012	31.58	17.13
29 October 2012	31.58	17.04
30 October 2012	31.58	16.68
31 October 2012	32.40	16.50
1 November 2012	30.57	16.34
2 November 2012	31.22	16.37
5 November 2012	32.38	16.67
6 November 2012	31.31	16.61
7 November 2012	33.47	16.79
8 November 2012	34.06	16.61
9 November 2012	34.46	16.71
12 November 2012	33.69	16.50
13 November 2012	33.10	16.17
14 November 2012	34.87	15.68
15 November 2012	35.63	15.58
16 November 2012	33.70	15.45
19 November 2012	31.03	14.98
20 November 2012	30.59	14.66
21 November 2012	30.67	14.98
22 November 2012	30.67	15.18
23 November 2012	29.69	15.39
26 November 2012	30.31	15.37
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28 November 2012	30.31	15.28
29 November 2012	29.69	15.32
30 November 2012	30.62	15.68
3 December 2012	31.32	15.78
4 December 2012	32.04	15.59
5 December 2012	31.32	15.66
6 December 2012	31.94	15.91
7 December 2012	30.96	16.19

Note: Vertical lines indicate Debt Ceiling on July 31, 2011, Draghi Speech on July 26, 2012, and Election on November 6, 2012.

Source: Bloomberg, Federal Reserve Bank of New York

## Exhibit 2

### Top-left panel (7) Corporate Debt Spreads to Treasury

Basis points

Date	Investment Grade	High Yield
30 July 2010	175	642
2 August 2010	174	638
3 August 2010	174	639
4 August 2010	173	632
5 August 2010	173	635
6 August 2010	173	641
9 August 2010	173	639
10 August 2010	174	644
11 August 2010	177	661
12 August 2010	178	667
13 August 2010	179	670
16 August 2010	179	670
17 August 2010	178	664
18 August 2010	177	661
19 August 2010	176	664
20 August 2010	177	664
23 August 2010	177	665
24 August 2010	180	677
25 August 2010	181	676
26 August 2010	181	676
27 August 2010	182	666
30 August 2010	184	673
31 August 2010	186	680
1 September 2010	185	668
2 September 2010	183	661
3 September 2010	182	654
7 September 2010	177	656
8 September 2010	179	650
9 September 2010	177	636
10 September 2010	176	628
13 September 2010	173	627
14 September 2010	173	629
15 September 2010	175	624
16 September 2010	175	616
17 September 2010	175	616
20 September 2010	174	616
21 September 2010	175	622
22 September 2010	175	626
23 September 2010	176	629
24 September 2010	176	624
27 September 2010	175	626
28 September 2010	176	628
29 September 2010	175	622
30 September 2010	175	621
1 October 2010	175	616
4 October 2010	174	617
5 October 2010	173	612
6 October 2010	170	609
7 October 2010	170	606
8 October 2010	170	606

12 October 2010	169	601
13 October 2010	169	596
14 October 2010	170	593
15 October 2010	174	592
18 October 2010	174	599
19 October 2010	173	600
20 October 2010	174	603
21 October 2010	172	595
22 October 2010	172	592
25 October 2010	169	588
26 October 2010	168	575
27 October 2010	167	569
28 October 2010	167	574
29 October 2010	168	575
1 November 2010	169	578
2 November 2010	168	577
3 November 2010	168	576
4 November 2010	165	572
5 November 2010	164	563
8 November 2010	163	556
9 November 2010	162	548
10 November 2010	164	562
12 November 2010	164	561
15 November 2010	166	557
16 November 2010	167	579
17 November 2010	166	580
18 November 2010	164	570
19 November 2010	164	573
22 November 2010	165	582
23 November 2010	167	597
24 November 2010	167	588
26 November 2010	168	591
29 November 2010	169	598
30 November 2010	171	608
1 December 2010	171	587
2 December 2010	169	576
3 December 2010	169	574
6 December 2010	169	579
7 December 2010	165	554
8 December 2010	163	549
9 December 2010	161	547
10 December 2010	161	542
13 December 2010	162	546
14 December 2010	161	531
15 December 2010	161	529
16 December 2010	161	534
17 December 2010	160	544
20 December 2010	160	541
21 December 2010	160	542
22 December 2010	159	535
23 December 2010	158	529
27 December 2010	158	528
28 December 2010	158	516
29 December 2010	157	526
30 December 2010	156	522
31 December 2010	156	526
3 January 2011	154	515
4 January 2011	152	511
5 January 2011	151	495
6 January 2011	151	497
7 January 2011	152	505
10 January 2011	153	510
11 January 2011	150	504
12 January 2011	150	500
13 January 2011	152	502
14 January 2011	152	499
18 January 2011	150	496
19 January 2011	150	498
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21 January 2011	150	491
24 January 2011	149	489
25 January 2011	150	494
26 January 2011	149	486
27 January 2011	150	490
28 January 2011	150	489
31 January 2011	150	491
1 February 2011	149	482
2 February 2011	148	473
3 February 2011	147	466
4 February 2011	145	452
7 February 2011	142	448
8 February 2011	140	436
9 February 2011	140	443
10 February 2011	140	440
11 February 2011	140	444
14 February 2011	139	444
15 February 2011	137	444
16 February 2011	137	442
17 February 2011	137	443
18 February 2011	137	442
22 February 2011	139	455
23 February 2011	140	456
24 February 2011	142	463
25 February 2011	141	463
28 February 2011	139	463
1 March 2011	140	459
2 March 2011	140	454
3 March 2011	138	443
4 March 2011	139	451
7 March 2011	139	452
8 March 2011	139	448
9 March 2011	139	455
10 March 2011	140	470
11 March 2011	141	474
14 March 2011	141	481
15 March 2011	146	497
16 March 2011	147	502
17 March 2011	147	498
18 March 2011	146	490
21 March 2011	144	481
22 March 2011	143	479
23 March 2011	143	480
24 March 2011	142	473
25 March 2011	142	468
28 March 2011	142	466
29 March 2011	142	463
30 March 2011	142	466
31 March 2011	142	465
1 April 2011	142	460
4 April 2011	141	461
5 April 2011	139	455
6 April 2011	138	445
7 April 2011	137	446
8 April 2011	136	443
11 April 2011	136	443
12 April 2011	137	453
13 April 2011	137	455
14 April 2011	138	453
15 April 2011	138	461
18 April 2011	139	467
19 April 2011	139	468
20 April 2011	137	459
21 April 2011	137	457
25 April 2011	137	461
26 April 2011	137	462
27 April 2011	137	460
28 April 2011	137	464
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2 May 2011	138	459
3 May 2011	138	462
4 May 2011	137	462
5 May 2011	138	465
6 May 2011	139	465
9 May 2011	139	466
10 May 2011	139	460
11 May 2011	139	463
12 May 2011	140	461
13 May 2011	141	463
16 May 2011	141	464
17 May 2011	141	469
18 May 2011	141	466
19 May 2011	141	468
20 May 2011	141	469
23 May 2011	142	476
24 May 2011	143	477
25 May 2011	144	482
26 May 2011	145	491
27 May 2011	146	491
31 May 2011	146	492
1 June 2011	146	496
2 June 2011	148	499
3 June 2011	149	508
6 June 2011	149	508
7 June 2011	149	512
8 June 2011	151	522
9 June 2011	151	524
10 June 2011	152	529
13 June 2011	153	532
14 June 2011	152	524
15 June 2011	153	538
16 June 2011	155	552
17 June 2011	154	549
20 June 2011	155	554
21 June 2011	155	552
22 June 2011	155	549
23 June 2011	157	560
24 June 2011	158	565
27 June 2011	158	563
28 June 2011	157	550
29 June 2011	155	539
30 June 2011	153	525
1 July 2011	152	518
5 July 2011	151	521
6 July 2011	151	524
7 July 2011	149	511
8 July 2011	150	523
11 July 2011	152	540
12 July 2011	153	544
13 July 2011	152	542
14 July 2011	152	536
15 July 2011	154	538
18 July 2011	155	541
19 July 2011	155	541
20 July 2011	154	535
21 July 2011	154	525
22 July 2011	152	525
25 July 2011	153	523
26 July 2011	152	526
27 July 2011	152	523
28 July 2011	152	527
29 July 2011	153	540
1 August 2011	153	548
2 August 2011	153	565
3 August 2011	155	573
4 August 2011	158	601
5 August 2011	163	609
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	173	670

9 August 2011	179	704
10 August 2011	181	715
11 August 2011	189	725
12 August 2011	189	714
15 August 2011	197	697
16 August 2011	197	697
17 August 2011	197	693
18 August 2011	201	709
19 August 2011	206	716
22 August 2011	207	718
23 August 2011	212	733
24 August 2011	216	731
25 August 2011	213	731
26 August 2011	214	736
29 August 2011	214	728
30 August 2011	212	727
31 August 2011	208	708
1 September 2011	207	703
2 September 2011	209	711
6 September 2011	213	731
7 September 2011	211	719
8 September 2011	212	718
9 September 2011	215	727
12 September 2011	220	740
13 September 2011	221	739
14 September 2011	220	733
15 September 2011	220	725
16 September 2011	220	722
19 September 2011	223	735
20 September 2011	223	734
21 September 2011	223	735
22 September 2011	231	767
23 September 2011	237	770
26 September 2011	236	771
27 September 2011	234	762
28 September 2011	235	772
29 September 2011	236	785
30 September 2011	238	807
3 October 2011	243	838
4 October 2011	252	876
5 October 2011	252	865
6 October 2011	249	837
7 October 2011	247	821
11 October 2011	241	801
12 October 2011	237	775
13 October 2011	235	774
14 October 2011	231	761
17 October 2011	230	749
18 October 2011	230	749
19 October 2011	224	732
20 October 2011	221	725
21 October 2011	218	708
24 October 2011	214	693
25 October 2011	212	690
26 October 2011	211	683
27 October 2011	202	648
28 October 2011	200	650
31 October 2011	202	667
1 November 2011	208	699
2 November 2011	208	693
3 November 2011	207	684
4 November 2011	207	685
7 November 2011	208	688
8 November 2011	211	683
9 November 2011	218	706
10 November 2011	219	704
14 November 2011	219	702
15 November 2011	225	708
Loading [MathJax]/jax/output/HTML-CSS/jax.js	227	710

17 November 2011	232	717
18 November 2011	232	718
21 November 2011	237	735
22 November 2011	241	746
23 November 2011	246	759
25 November 2011	249	756
28 November 2011	245	751
29 November 2011	246	749
30 November 2011	243	734
1 December 2011	243	725
2 December 2011	237	720
5 December 2011	232	711
6 December 2011	232	708
7 December 2011	232	710
8 December 2011	233	713
9 December 2011	235	711
12 December 2011	236	718
13 December 2011	236	717
14 December 2011	237	722
15 December 2011	239	723
16 December 2011	239	724
19 December 2011	238	723
20 December 2011	238	712
21 December 2011	238	708
22 December 2011	237	704
23 December 2011	237	696
27 December 2011	236	696
28 December 2011	235	700
29 December 2011	234	697
30 December 2011	234	699
3 January 2012	233	682
4 January 2012	231	674
5 January 2012	231	678
6 January 2012	230	675
9 January 2012	228	675
10 January 2012	226	669
11 January 2012	227	674
12 January 2012	226	670
13 January 2012	225	677
17 January 2012	224	671
18 January 2012	222	671
19 January 2012	219	656
20 January 2012	217	647
23 January 2012	214	641
24 January 2012	213	640
25 January 2012	212	643
26 January 2012	208	636
27 January 2012	207	632
30 January 2012	207	642
31 January 2012	206	643
1 February 2012	205	636
2 February 2012	203	636
3 February 2012	200	623
6 February 2012	196	625
7 February 2012	194	617
8 February 2012	192	609
9 February 2012	191	605
10 February 2012	193	616
13 February 2012	191	611
14 February 2012	191	612
15 February 2012	191	614
16 February 2012	194	614
17 February 2012	191	607
21 February 2012	189	597
22 February 2012	189	599
23 February 2012	189	595
24 February 2012	187	585
27 February 2012	187	590
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	185	586

29 February 2012	181	577
1 March 2012	180	573
2 March 2012	180	579
5 March 2012	180	584
6 March 2012	184	605
7 March 2012	186	599
8 March 2012	184	591
9 March 2012	184	586
12 March 2012	184	584
13 March 2012	182	574
14 March 2012	179	561
15 March 2012	176	567
16 March 2012	174	565
19 March 2012	173	559
20 March 2012	174	561
21 March 2012	174	566
22 March 2012	176	572
23 March 2012	177	573
26 March 2012	176	572
27 March 2012	176	573
28 March 2012	175	574
29 March 2012	177	584
30 March 2012	176	576
2 April 2012	177	579
3 April 2012	177	571
4 April 2012	179	579
5 April 2012	181	585
9 April 2012	185	603
10 April 2012	187	612
11 April 2012	188	609
12 April 2012	186	603
13 April 2012	185	605
16 April 2012	186	606
17 April 2012	185	598
18 April 2012	186	599
19 April 2012	186	600
20 April 2012	186	598
23 April 2012	189	603
24 April 2012	188	598
25 April 2012	186	589
26 April 2012	186	589
27 April 2012	186	586
30 April 2012	185	582
1 May 2012	186	574
2 May 2012	185	574
3 May 2012	183	572
4 May 2012	184	572
7 May 2012	186	576
8 May 2012	186	580
9 May 2012	189	584
10 May 2012	188	580
11 May 2012	190	581
14 May 2012	192	593
15 May 2012	193	596
16 May 2012	197	604
17 May 2012	202	626
18 May 2012	206	634
21 May 2012	207	644
22 May 2012	208	635
23 May 2012	210	658
24 May 2012	209	656
25 May 2012	208	656
29 May 2012	206	653
30 May 2012	208	665
31 May 2012	209	671
1 June 2012	214	688
4 June 2012	215	689
5 June 2012	215	695
Loading [MathJax]/jax/output/HTML-CSS/jax.js	213	679

7 June 2012	209	668
8 June 2012	210	667
11 June 2012	208	664
12 June 2012	210	665
13 June 2012	210	665
14 June 2012	210	662
15 June 2012	208	662
18 June 2012	208	659
19 June 2012	206	644
20 June 2012	203	633
21 June 2012	202	632
22 June 2012	201	630
25 June 2012	202	638
26 June 2012	202	635
27 June 2012	202	631
28 June 2012	203	631
29 June 2012	199	615
2 July 2012	199	617
3 July 2012	197	611
5 July 2012	196	612
6 July 2012	197	614
9 July 2012	198	613
10 July 2012	196	609
11 July 2012	195	606
12 July 2012	193	611
13 July 2012	192	609
16 July 2012	191	612
17 July 2012	188	609
18 July 2012	183	607
19 July 2012	181	598
20 July 2012	183	599
23 July 2012	187	613
24 July 2012	188	615
25 July 2012	187	615
26 July 2012	185	610
27 July 2012	182	592
30 July 2012	180	591
31 July 2012	178	595
1 August 2012	178	579
2 August 2012	178	583
3 August 2012	177	572
6 August 2012	176	570
7 August 2012	174	565
8 August 2012	174	565
9 August 2012	174	568
10 August 2012	174	577
13 August 2012	173	576
14 August 2012	172	570
15 August 2012	173	569
16 August 2012	173	569
17 August 2012	171	569
20 August 2012	171	568
21 August 2012	171	565
22 August 2012	171	569
23 August 2012	171	572
24 August 2012	172	569
27 August 2012	171	568
28 August 2012	171	571
29 August 2012	171	569
30 August 2012	171	571
31 August 2012	172	575
4 September 2012	172	572
5 September 2012	172	569
6 September 2012	170	558
7 September 2012	167	551
10 September 2012	166	547
11 September 2012	165	542
12 September 2012	164	531
Loading [MathJax]/jax/output/HTML-CSS/jax.js	162	529

14 September 2012		157	513
17 September 2012		156	514
18 September 2012		156	516
19 September 2012		155	516
20 September 2012		155	522
21 September 2012		155	525
24 September 2012		156	533
25 September 2012		156	539
26 September 2012		159	562
27 September 2012		157	556
28 September 2012		156	551
1 October 2012		155	552
2 October 2012		154	552
3 October 2012		153	551
4 October 2012		151	545
5 October 2012		148	536
9 October 2012		146	541
10 October 2012		147	545
11 October 2012		145	541
12 October 2012		143	541
15 October 2012		141	537
16 October 2012		138	529
17 October 2012		133	516
18 October 2012		131	513
19 October 2012		131	519
22 October 2012		133	517
23 October 2012		137	531
24 October 2012		136	528
25 October 2012		136	526
26 October 2012		136	533
29 October 2012		138	540
31 October 2012		137	543
1 November 2012		137	539
2 November 2012		137	537
5 November 2012		139	539
6 November 2012		140	532
7 November 2012		140	545
8 November 2012		142	548
9 November 2012		145	559
13 November 2012		145	564
14 November 2012		145	567
15 November 2012		148	579
16 November 2012		150	584
19 November 2012		149	573
20 November 2012		148	567
21 November 2012		148	562
23 November 2012		147	560
26 November 2012		147	558
27 November 2012		147	556
28 November 2012		148	556
29 November 2012		147	549
30 November 2012		147	546
3 December 2012		147	542
4 December 2012		147	539
5 December 2012		146	531
6 December 2012		147	529
7 December 2012		147	524

Note: A vertical line indicates the October 23-24, 2012 FOMC meeting.

Source: Barclays

## Top-right panel (8) Corporate Debt Issuance

\$ Billions

Month	Investment Grade: 2012	Investment Grade: 2011	High Yield: 2012	High Yield: 2011
Jan	102.16	128.61	26.11	31.13
Feb	211.67	191.05	64.11	53.31
Loading [MathJax]/jax/output/HTML-CSS/jax.js	347.55	309.84	96.89	90.59
Apr	396.52	373.07	120.58	121.09

May	484.33	485.10	139.93	165.76
Jun	556.51	528.77	148.83	182.83
Jul	637.82	579.87	170.85	200.85
Aug	703.00	631.88	201.56	201.95
Sep	834.23	700.08	244.52	208.15
Oct	921.71	758.17	292.78	217.01
Nov	1058.64	846.59	324.83	240.43
Dec	ND	881.52	ND	243.85

Source: Bloomberg

## Middle-left panel (9) Japanese Equities and Exchange Rate

Date	Nikkei Equity Index (Indexed to 08/01/11)	Dollar-Yen Exchange Rate (¥/\$)
1 August 2011	100.00	77.21
2 August 2011	98.79	77.15
3 August 2011	96.71	77.06
4 August 2011	96.93	78.89
5 August 2011	93.33	78.40
8 August 2011	91.30	77.77
9 August 2011	89.76	76.96
10 August 2011	90.70	76.86
11 August 2011	90.13	76.84
12 August 2011	89.95	76.71
15 August 2011	91.18	76.83
16 August 2011	91.39	76.80
17 August 2011	90.89	76.60
18 August 2011	89.75	76.58
19 August 2011	87.50	76.55
22 August 2011	86.58	76.79
23 August 2011	87.64	76.66
24 August 2011	86.70	76.98
25 August 2011	88.03	77.46
26 August 2011	88.29	76.64
29 August 2011	88.82	76.83
30 August 2011	89.85	76.74
31 August 2011	89.87	76.66
1 September 2011	90.93	76.93
2 September 2011	89.82	76.80
5 September 2011	88.15	76.89
6 September 2011	86.21	77.66
7 September 2011	87.94	77.26
8 September 2011	88.24	77.51
9 September 2011	87.68	77.61
12 September 2011	85.66	77.21
13 September 2011	86.47	76.96
14 September 2011	85.48	76.62
15 September 2011	86.99	76.70
16 September 2011	88.95	76.79
19 September 2011	88.95	76.58
20 September 2011	87.52	76.45
21 September 2011	87.72	76.46
22 September 2011	85.90	76.24
23 September 2011	85.90	76.61
26 September 2011	84.04	76.36
27 September 2011	86.40	76.81
28 September 2011	86.46	76.61
29 September 2011	87.32	76.83
30 September 2011	87.31	77.06
3 October 2011	85.75	76.63
4 October 2011	84.86	76.81
5 October 2011	84.12	76.79
6 October 2011	85.52	76.72
7 October 2011	86.36	76.73
10 October 2011	86.36	76.68
11 October 2011	88.04	76.65
12 October 2011	87.70	77.26
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	88.54	76.90

14 October 2011	87.79	77.22
17 October 2011	89.11	76.83
18 October 2011	87.73	76.82
19 October 2011	88.03	76.81
20 October 2011	87.13	76.80
21 October 2011	87.09	76.29
24 October 2011	88.75	76.10
25 October 2011	87.93	76.09
26 October 2011	87.79	76.18
27 October 2011	89.58	75.95
28 October 2011	90.82	75.82
31 October 2011	90.20	78.17
1 November 2011	88.67	78.37
2 November 2011	86.71	78.05
3 November 2011	86.71	78.06
4 November 2011	88.32	78.24
7 November 2011	87.98	78.05
8 November 2011	86.86	77.73
9 November 2011	87.86	77.82
10 November 2011	85.31	77.65
11 November 2011	85.44	77.20
14 November 2011	86.34	77.07
15 November 2011	85.72	77.03
16 November 2011	84.93	77.06
17 November 2011	85.09	76.98
18 November 2011	84.04	76.91
21 November 2011	83.78	76.89
22 November 2011	83.44	76.97
23 November 2011	83.44	77.31
24 November 2011	81.94	77.12
25 November 2011	81.89	77.73
28 November 2011	83.17	77.98
29 November 2011	85.08	77.93
30 November 2011	84.64	77.62
1 December 2011	86.28	77.70
2 December 2011	86.74	77.99
5 December 2011	87.27	77.82
6 December 2011	86.05	77.73
7 December 2011	87.53	77.68
8 December 2011	86.95	77.64
9 December 2011	85.66	77.65
12 December 2011	86.84	77.94
13 December 2011	85.83	78.00
14 December 2011	85.49	78.07
15 December 2011	84.07	77.86
16 December 2011	84.31	77.76
19 December 2011	83.25	78.05
20 December 2011	83.66	77.89
21 December 2011	84.90	78.06
22 December 2011	84.25	78.17
23 December 2011	84.25	78.09
26 December 2011	85.09	77.98
27 December 2011	84.70	77.88
28 December 2011	84.53	77.94
29 December 2011	84.28	77.64
30 December 2011	84.85	76.91
2 January 2012	84.85	76.90
3 January 2012	84.85	76.74
4 January 2012	85.90	76.72
5 January 2012	85.19	77.12
6 January 2012	84.20	76.97
9 January 2012	84.20	76.86
10 January 2012	84.52	76.85
11 January 2012	84.78	76.85
12 January 2012	84.15	76.76
13 January 2012	85.30	76.97
16 January 2012	84.08	76.78
Loading [MathJax]/jax/output/HTML-CSS/jax.js	84.96	76.83

18 January 2012	85.81	76.82
19 January 2012	86.70	77.11
20 January 2012	87.97	77.01
23 January 2012	87.97	77.02
24 January 2012	88.16	77.67
25 January 2012	89.15	77.78
26 January 2012	88.81	77.45
27 January 2012	88.72	76.70
30 January 2012	88.24	76.35
31 January 2012	88.33	76.27
1 February 2012	88.41	76.20
2 February 2012	89.08	76.22
3 February 2012	88.63	76.60
6 February 2012	89.61	76.55
7 February 2012	89.49	76.76
8 February 2012	90.47	77.04
9 February 2012	90.34	77.67
10 February 2012	89.79	77.61
13 February 2012	90.31	77.57
14 February 2012	90.84	78.44
15 February 2012	92.93	78.43
16 February 2012	92.71	78.94
17 February 2012	94.17	79.55
20 February 2012	95.18	79.63
21 February 2012	94.96	79.74
22 February 2012	95.88	80.29
23 February 2012	96.29	80.00
24 February 2012	96.81	81.20
27 February 2012	96.68	80.61
28 February 2012	97.57	80.46
29 February 2012	97.57	81.15
1 March 2012	97.41	81.12
2 March 2012	98.11	81.81
5 March 2012	97.33	81.56
6 March 2012	96.71	80.89
7 March 2012	96.10	81.09
8 March 2012	98.03	81.56
9 March 2012	99.65	82.46
12 March 2012	99.25	82.23
13 March 2012	99.34	82.94
14 March 2012	100.86	83.73
15 March 2012	101.59	83.57
16 March 2012	101.65	83.43
19 March 2012	101.78	83.35
20 March 2012	101.78	83.70
21 March 2012	101.22	83.41
22 March 2012	101.63	82.54
23 March 2012	100.47	82.35
26 March 2012	100.53	82.82
27 March 2012	102.91	83.17
28 March 2012	102.18	82.90
29 March 2012	101.50	82.46
30 March 2012	101.19	82.87
2 April 2012	101.45	82.08
3 April 2012	100.86	82.81
4 April 2012	98.54	82.46
5 April 2012	98.02	82.37
6 April 2012	97.22	81.64
9 April 2012	95.80	81.49
10 April 2012	95.72	80.67
11 April 2012	94.92	80.86
12 April 2012	95.58	80.89
13 April 2012	96.72	80.93
16 April 2012	95.04	80.41
17 April 2012	94.98	80.85
18 April 2012	97.01	81.26
19 April 2012	96.22	81.61
Loading [MathJax]/jax/output/HTML-CSS/jax.js	95.95	81.52

23 April 2012	95.76	81.18
24 April 2012	95.01	81.32
25 April 2012	95.95	81.34
26 April 2012	95.95	80.99
27 April 2012	95.54	80.27
30 April 2012	95.54	79.82
1 May 2012	93.84	80.09
2 May 2012	94.13	80.14
3 May 2012	94.13	80.18
4 May 2012	94.13	79.85
7 May 2012	91.51	79.92
8 May 2012	92.14	79.87
9 May 2012	90.77	79.64
10 May 2012	90.41	79.93
11 May 2012	89.85	79.94
14 May 2012	90.05	79.85
15 May 2012	89.32	80.18
16 May 2012	88.32	80.33
17 May 2012	89.08	79.28
18 May 2012	86.42	79.02
21 May 2012	86.64	79.31
22 May 2012	87.60	79.96
23 May 2012	85.87	79.47
24 May 2012	85.93	79.60
25 May 2012	86.11	79.68
28 May 2012	86.23	79.47
29 May 2012	86.87	79.49
30 May 2012	86.64	79.07
31 May 2012	85.73	78.32
1 June 2012	84.70	78.02
4 June 2012	83.25	78.34
5 June 2012	84.11	78.75
6 June 2012	85.63	79.19
7 June 2012	86.70	79.63
8 June 2012	84.89	79.49
11 June 2012	86.55	79.44
12 June 2012	85.67	79.53
13 June 2012	86.18	79.48
14 June 2012	85.99	79.35
15 June 2012	85.99	78.73
18 June 2012	87.52	79.11
19 June 2012	86.86	78.95
20 June 2012	87.83	79.54
21 June 2012	88.55	80.28
22 June 2012	88.29	80.43
25 June 2012	87.65	79.66
26 June 2012	86.94	79.52
27 June 2012	87.61	79.72
28 June 2012	89.05	79.46
29 June 2012	90.38	79.79
2 July 2012	90.35	79.51
3 July 2012	90.98	79.79
4 July 2012	91.36	79.88
5 July 2012	91.12	79.92
6 July 2012	90.52	79.66
9 July 2012	89.28	79.56
10 July 2012	88.89	79.43
11 July 2012	88.82	79.76
12 July 2012	87.51	79.31
13 July 2012	87.55	79.18
16 July 2012	87.55	78.87
17 July 2012	87.86	79.06
18 July 2012	87.57	78.80
19 July 2012	88.26	78.59
20 July 2012	87.00	78.49
23 July 2012	85.38	78.40
24 July 2012	85.18	78.18
Loading [MathJax]/jax/output/HTML-CSS/jax.js	83.95	78.16

26 July 2012	84.73	78.21
27 July 2012	85.97	78.46
30 July 2012	86.66	78.18
31 July 2012	87.26	78.12
1 August 2012	86.72	78.44
2 August 2012	86.84	78.24
3 August 2012	85.85	78.47
6 August 2012	87.57	78.25
7 August 2012	88.34	78.61
8 August 2012	89.12	78.43
9 August 2012	90.10	78.57
10 August 2012	89.23	78.28
13 August 2012	89.16	78.32
14 August 2012	89.61	78.74
15 August 2012	89.56	78.99
16 August 2012	91.25	79.35
17 August 2012	91.95	79.56
20 August 2012	92.03	79.43
21 August 2012	91.89	79.29
22 August 2012	91.64	78.58
23 August 2012	92.10	78.49
24 August 2012	91.03	78.67
27 August 2012	91.17	78.74
28 August 2012	90.65	78.51
29 August 2012	91.02	78.71
30 August 2012	90.15	78.63
31 August 2012	88.71	78.39
3 September 2012	88.15	78.26
4 September 2012	88.06	78.43
5 September 2012	87.10	78.39
6 September 2012	87.11	78.86
7 September 2012	89.03	78.24
10 September 2012	89.01	78.29
11 September 2012	88.38	77.77
12 September 2012	89.91	77.86
13 September 2012	90.27	77.49
14 September 2012	91.92	78.39
17 September 2012	91.92	78.71
18 September 2012	91.56	78.82
19 September 2012	92.65	78.38
20 September 2012	91.19	78.24
21 September 2012	91.42	78.17
24 September 2012	91.01	77.85
25 September 2012	91.23	77.80
26 September 2012	89.38	77.75
27 September 2012	89.81	77.61
28 September 2012	89.01	77.96
1 October 2012	88.27	77.99
2 October 2012	88.17	78.16
3 October 2012	87.78	78.49
4 October 2012	88.56	78.48
5 October 2012	88.94	78.67
8 October 2012	88.94	78.33
9 October 2012	88.00	78.26
10 October 2012	86.26	78.18
11 October 2012	85.77	78.34
12 October 2012	85.64	78.44
15 October 2012	86.08	78.65
16 October 2012	87.32	78.89
17 October 2012	88.37	78.93
18 October 2012	90.14	79.28
19 October 2012	90.34	79.32
22 October 2012	90.42	79.94
23 October 2012	90.46	79.85
24 October 2012	89.86	79.81
25 October 2012	90.87	80.30
26 October 2012	89.64	79.65
Loading [MathJax]/jax/output/HTML-CSS/jax.js	89.61	79.80

30 October 2012	88.73	79.63
31 October 2012	89.60	79.77
1 November 2012	89.78	80.12
2 November 2012	90.83	80.43
5 November 2012	90.39	80.29
6 November 2012	90.07	80.35
7 November 2012	90.04	80.00
8 November 2012	88.68	79.47
9 November 2012	87.88	79.49
12 November 2012	87.07	79.50
13 November 2012	86.91	79.38
14 November 2012	86.95	80.25
15 November 2012	88.61	81.17
16 November 2012	90.56	81.32
19 November 2012	91.85	81.41
20 November 2012	91.75	81.68
21 November 2012	92.55	82.52
22 November 2012	94.00	82.48
23 November 2012	94.00	82.40
26 November 2012	94.22	82.08
27 November 2012	94.56	82.15
28 November 2012	93.41	82.08
29 November 2012	94.34	82.12
30 November 2012	94.79	82.48
3 December 2012	94.91	82.25
4 December 2012	94.66	81.90
5 December 2012	95.02	82.47
6 December 2012	95.79	82.40
7 December 2012	95.61	82.49

Note: A vertical line indicates Elections Announced on November 14, 2012.

Source: Bloomberg

## Middle-right panel (10) Euro Area Interest and Exchange Rates

Date	2-Year German Yield (Percent)	Euro-Dollar Exchange Rate (\$/€)
1 August 2011	1.096	1.4250
2 August 2011	1.066	1.4203
3 August 2011	1.046	1.4323
4 August 2011	0.842	1.4092
5 August 2011	0.765	1.4282
8 August 2011	0.723	1.4179
9 August 2011	0.776	1.4376
10 August 2011	0.571	1.4178
11 August 2011	0.659	1.4241
12 August 2011	0.690	1.4248
15 August 2011	0.713	1.4445
16 August 2011	0.738	1.4407
17 August 2011	0.702	1.4426
18 August 2011	0.593	1.4333
19 August 2011	0.649	1.4397
22 August 2011	0.629	1.4358
23 August 2011	0.666	1.4442
24 August 2011	0.715	1.4414
25 August 2011	0.648	1.4379
26 August 2011	0.653	1.4499
29 August 2011	0.742	1.4511
30 August 2011	0.658	1.4441
31 August 2011	0.720	1.4369
1 September 2011	0.645	1.4259
2 September 2011	0.522	1.4205
5 September 2011	0.428	1.4098
6 September 2011	0.437	1.3998
7 September 2011	0.488	1.4098
8 September 2011	0.438	1.3882
9 September 2011	0.390	1.3656
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.434	1.3679

13 September 2011	0.502	1.3678
14 September 2011	0.562	1.3755
15 September 2011	0.602	1.3877
16 September 2011	0.510	1.3796
19 September 2011	0.464	1.3686
20 September 2011	0.464	1.3702
21 September 2011	0.442	1.3573
22 September 2011	0.401	1.3465
23 September 2011	0.393	1.3500
26 September 2011	0.451	1.3533
27 September 2011	0.533	1.3585
28 September 2011	0.594	1.3543
29 September 2011	0.599	1.3597
30 September 2011	0.550	1.3387
3 October 2011	0.495	1.3176
4 October 2011	0.458	1.3349
5 October 2011	0.496	1.3348
6 October 2011	0.611	1.3437
7 October 2011	0.603	1.3378
10 October 2011	0.650	1.3642
11 October 2011	0.650	1.3640
12 October 2011	0.705	1.3791
13 October 2011	0.623	1.3777
14 October 2011	0.662	1.3882
17 October 2011	0.580	1.3737
18 October 2011	0.582	1.3752
19 October 2011	0.619	1.3760
20 October 2011	0.589	1.3780
21 October 2011	0.661	1.3896
24 October 2011	0.658	1.3929
25 October 2011	0.564	1.3908
26 October 2011	0.518	1.3906
27 October 2011	0.658	1.4189
28 October 2011	0.604	1.4147
31 October 2011	0.539	1.3858
1 November 2011	0.411	1.3703
2 November 2011	0.423	1.3747
3 November 2011	0.404	1.3823
4 November 2011	0.404	1.3792
7 November 2011	0.376	1.3776
8 November 2011	0.397	1.3834
9 November 2011	0.355	1.3542
10 November 2011	0.376	1.3606
11 November 2011	0.403	1.3750
14 November 2011	0.309	1.3633
15 November 2011	0.306	1.3539
16 November 2011	0.401	1.3463
17 November 2011	0.446	1.3458
18 November 2011	0.468	1.3525
21 November 2011	0.409	1.3489
22 November 2011	0.387	1.3505
23 November 2011	0.445	1.3342
24 November 2011	0.472	1.3347
25 November 2011	0.463	1.3239
28 November 2011	0.448	1.3320
29 November 2011	0.436	1.3317
30 November 2011	0.337	1.3446
1 December 2011	0.302	1.3461
2 December 2011	0.305	1.3391
5 December 2011	0.342	1.3401
6 December 2011	0.342	1.3402
7 December 2011	0.313	1.3412
8 December 2011	0.290	1.3341
9 December 2011	0.320	1.3386
12 December 2011	0.252	1.3187
13 December 2011	0.275	1.3037
14 December 2011	0.275	1.2983
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.255	1.3016

16 December 2011	0.220	1.3046
19 December 2011	0.209	1.2998
20 December 2011	0.212	1.3082
21 December 2011	0.232	1.3047
22 December 2011	0.227	1.3050
23 December 2011	0.227	1.3044
26 December 2011	0.227	1.3061
27 December 2011	0.168	1.3071
28 December 2011	0.170	1.2941
29 December 2011	0.160	1.2961
30 December 2011	0.144	1.2961
2 January 2012	0.203	1.2934
3 January 2012	0.188	1.3050
4 January 2012	0.180	1.2943
5 January 2012	0.174	1.2789
6 January 2012	0.166	1.2717
9 January 2012	0.143	1.2765
10 January 2012	0.171	1.2778
11 January 2012	0.140	1.2707
12 January 2012	0.163	1.2814
13 January 2012	0.152	1.2680
16 January 2012	0.152	1.2667
17 January 2012	0.184	1.2736
18 January 2012	0.202	1.2863
19 January 2012	0.213	1.2968
20 January 2012	0.207	1.2931
23 January 2012	0.199	1.3013
24 January 2012	0.221	1.3036
25 January 2012	0.194	1.3106
26 January 2012	0.177	1.3109
27 January 2012	0.191	1.3220
30 January 2012	0.175	1.3144
31 January 2012	0.158	1.3084
1 February 2012	0.180	1.3161
2 February 2012	0.207	1.3144
3 February 2012	0.204	1.3158
6 February 2012	0.179	1.3130
7 February 2012	0.223	1.3261
8 February 2012	0.250	1.3260
9 February 2012	0.269	1.3286
10 February 2012	0.239	1.3197
13 February 2012	0.255	1.3186
14 February 2012	0.242	1.3134
15 February 2012	0.214	1.3066
16 February 2012	0.244	1.3130
17 February 2012	0.253	1.3140
20 February 2012	0.258	1.3243
21 February 2012	0.261	1.3234
22 February 2012	0.265	1.3249
23 February 2012	0.260	1.3373
24 February 2012	0.243	1.3448
27 February 2012	0.203	1.3398
28 February 2012	0.201	1.3458
29 February 2012	0.191	1.3325
1 March 2012	0.215	1.3311
2 March 2012	0.161	1.3198
5 March 2012	0.185	1.3217
6 March 2012	0.170	1.3112
7 March 2012	0.153	1.3149
8 March 2012	0.160	1.3275
9 March 2012	0.160	1.3123
12 March 2012	0.155	1.3155
13 March 2012	0.180	1.3084
14 March 2012	0.247	1.3032
15 March 2012	0.280	1.3080
16 March 2012	0.334	1.3175
19 March 2012	0.339	1.3238
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.334	1.3225

21 March 2012	0.291	1.3216
22 March 2012	0.260	1.3201
23 March 2012	0.232	1.3270
26 March 2012	0.263	1.3359
27 March 2012	0.240	1.3313
28 March 2012	0.211	1.3317
29 March 2012	0.209	1.3302
30 March 2012	0.206	1.3343
2 April 2012	0.211	1.3321
3 April 2012	0.203	1.3233
4 April 2012	0.187	1.3142
5 April 2012	0.140	1.3066
6 April 2012	0.140	1.3096
9 April 2012	0.140	1.3106
10 April 2012	0.093	1.3082
11 April 2012	0.140	1.3110
12 April 2012	0.137	1.3188
13 April 2012	0.126	1.3078
16 April 2012	0.137	1.3142
17 April 2012	0.147	1.3127
18 April 2012	0.139	1.3123
19 April 2012	0.128	1.3138
20 April 2012	0.138	1.3219
23 April 2012	0.106	1.3156
24 April 2012	0.130	1.3197
25 April 2012	0.124	1.3217
26 April 2012	0.094	1.3219
27 April 2012	0.102	1.3255
30 April 2012	0.080	1.3239
1 May 2012	0.080	1.3237
2 May 2012	0.080	1.3158
3 May 2012	0.088	1.3152
4 May 2012	0.082	1.3084
7 May 2012	0.101	1.3051
8 May 2012	0.090	1.3005
9 May 2012	0.070	1.2929
10 May 2012	0.075	1.2936
11 May 2012	0.091	1.2917
14 May 2012	0.063	1.2823
15 May 2012	0.071	1.2729
16 May 2012	0.071	1.2716
17 May 2012	0.043	1.2698
18 May 2012	0.051	1.2780
21 May 2012	0.048	1.2818
22 May 2012	0.061	1.2684
23 May 2012	0.054	1.2582
24 May 2012	0.066	1.2532
25 May 2012	0.047	1.2517
28 May 2012	0.029	1.2541
29 May 2012	0.042	1.2503
30 May 2012	0.010	1.2367
31 May 2012	0.002	1.2365
1 June 2012	0.012	1.2434
4 June 2012	0.012	1.2499
5 June 2012	0.010	1.2452
6 June 2012	0.070	1.2582
7 June 2012	0.075	1.2561
8 June 2012	0.043	1.2517
11 June 2012	0.058	1.2482
12 June 2012	0.095	1.2503
13 June 2012	0.126	1.2557
14 June 2012	0.083	1.2633
15 June 2012	0.068	1.2638
18 June 2012	0.025	1.2576
19 June 2012	0.086	1.2685
20 June 2012	0.150	1.2707
21 June 2012	0.105	1.2540
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	0.135	1.2570

25 June 2012	0.074	1.2504
26 June 2012	0.100	1.2491
27 June 2012	0.126	1.2468
28 June 2012	0.106	1.2444
29 June 2012	0.124	1.2667
2 July 2012	0.098	1.2576
3 July 2012	0.090	1.2608
4 July 2012	0.073	1.2527
5 July 2012	0.016	1.2392
6 July 2012	-0.010	1.2291
9 July 2012	-0.003	1.2313
10 July 2012	0.003	1.2250
11 July 2012	-0.016	1.2239
12 July 2012	-0.034	1.2203
13 July 2012	-0.042	1.2249
16 July 2012	-0.055	1.2273
17 July 2012	-0.047	1.2294
18 July 2012	-0.061	1.2284
19 July 2012	-0.053	1.2281
20 July 2012	-0.074	1.2157
23 July 2012	-0.064	1.2117
24 July 2012	-0.069	1.2061
25 July 2012	-0.061	1.2158
26 July 2012	-0.051	1.2283
27 July 2012	-0.029	1.2322
30 July 2012	-0.080	1.2260
31 July 2012	-0.091	1.2304
1 August 2012	-0.076	1.2225
2 August 2012	-0.089	1.2180
3 August 2012	-0.022	1.2387
6 August 2012	-0.060	1.2401
7 August 2012	-0.030	1.2399
8 August 2012	-0.052	1.2365
9 August 2012	-0.057	1.2306
10 August 2012	-0.074	1.2289
13 August 2012	-0.047	1.2332
14 August 2012	-0.036	1.2322
15 August 2012	-0.022	1.2290
16 August 2012	-0.036	1.2356
17 August 2012	-0.041	1.2334
20 August 2012	-0.022	1.2346
21 August 2012	0.006	1.2473
22 August 2012	0.007	1.2529
23 August 2012	-0.012	1.2564
24 August 2012	-0.012	1.2512
27 August 2012	0.000	1.2499
28 August 2012	-0.012	1.2565
29 August 2012	0.000	1.2530
30 August 2012	-0.037	1.2506
31 August 2012	-0.035	1.2579
3 September 2012	-0.037	1.2593
4 September 2012	-0.032	1.2566
5 September 2012	-0.015	1.2601
6 September 2012	0.035	1.2631
7 September 2012	0.033	1.2816
10 September 2012	0.040	1.2758
11 September 2012	0.045	1.2855
12 September 2012	0.078	1.2900
13 September 2012	0.061	1.2991
14 September 2012	0.104	1.3130
17 September 2012	0.084	1.3117
18 September 2012	0.076	1.3048
19 September 2012	0.069	1.3049
20 September 2012	0.043	1.2968
21 September 2012	0.036	1.2980
24 September 2012	0.041	1.2931
25 September 2012	0.069	1.2899
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.039	1.2873

27 September 2012	0.041	1.2913
28 September 2012	0.021	1.2860
1 October 2012	0.046	1.2888
2 October 2012	0.041	1.2920
3 October 2012	0.031	1.2905
4 October 2012	0.042	1.3018
5 October 2012	0.057	1.3045
8 October 2012	0.044	1.2968
9 October 2012	0.039	1.2885
10 October 2012	0.047	1.2875
11 October 2012	0.050	1.2928
12 October 2012	0.042	1.2951
15 October 2012	0.053	1.2949
16 October 2012	0.082	1.3054
17 October 2012	0.098	1.3119
18 October 2012	0.111	1.3067
19 October 2012	0.112	1.3024
22 October 2012	0.122	1.3060
23 October 2012	0.107	1.2987
24 October 2012	0.080	1.2974
25 October 2012	0.083	1.2934
26 October 2012	0.051	1.2938
29 October 2012	0.030	1.2904
30 October 2012	0.040	1.2959
31 October 2012	0.038	1.2960
1 November 2012	0.019	1.2943
2 November 2012	0.005	1.2835
5 November 2012	-0.008	1.2796
6 November 2012	-0.005	1.2814
7 November 2012	-0.038	1.2771
8 November 2012	-0.033	1.2747
9 November 2012	-0.033	1.2714
12 November 2012	-0.036	1.2710
13 November 2012	-0.033	1.2704
14 November 2012	-0.022	1.2736
15 November 2012	-0.029	1.2781
16 November 2012	-0.034	1.2743
19 November 2012	-0.022	1.2814
20 November 2012	0.000	1.2817
21 November 2012	0.010	1.2829
22 November 2012	0.002	1.2884
23 November 2012	-0.002	1.2976
26 November 2012	0.000	1.2972
27 November 2012	0.020	1.2943
28 November 2012	-0.012	1.2953
29 November 2012	0.002	1.2979
30 November 2012	0.010	1.2986
3 December 2012	0.025	1.3054
4 December 2012	0.015	1.3094
5 December 2012	0.002	1.3068
6 December 2012	-0.047	1.2970
7 December 2012	-0.077	1.2927

Note: Vertical lines indicate the Draghi Speech on July 26, 2012, and the October 23-24, 2012 FOMC meeting.

Source: Bloomberg

## Bottom-left panel (11) Treasury Bill Rates Around Year-End

Percent

Weeks to Maturity	2012	2011	2010	2009
11.86	0.0725	-0.0025	0.128	0.020
10.86	0.0675	-0.0025	0.125	0.029
9.86	0.0625	-0.0025	0.120	0.015
8.86	0.0625	-0.0025	0.115	0.015
7.86	0.0475	-0.0025	0.120	0.015
6.86	0.0475	-0.0075	0.103	0.009
5.86	0.0525	-0.0075	0.093	0.015
4.86	0.0475	-0.0025	0.090	0.011

3.86	0.0525	-0.0075	0.080	0.014
2.86	0.1275	0.0025	0.113	0.076
1.86	0.1175	0.0050	0.103	0.068
0.86	0.1325	0.0025	0.090	0.050

Note: A vertical line indicates year-end at 3.43 weeks to maturity.

Source: Bloomberg, Federal Reserve Bank of New York

## Bottom-right panel (12) Overnight Funding Rates

Percent

Date	MBS GCF Repo	Treasury GCF Repo	Federal Funds Effective
1 August 2011	0.394	0.277	0.17
2 August 2011	0.306	0.228	0.16
3 August 2011	0.141	0.096	0.12
4 August 2011	0.092	0.065	0.09
5 August 2011	0.050	0.043	0.08
8 August 2011	0.128	0.066	0.11
9 August 2011	0.074	0.033	0.10
10 August 2011	0.061	0.038	0.10
11 August 2011	0.120	0.071	0.09
12 August 2011	0.169	0.113	0.10
15 August 2011	0.183	0.103	0.10
16 August 2011	0.086	0.048	0.09
17 August 2011	0.082	0.040	0.09
18 August 2011	0.081	0.059	0.09
19 August 2011	0.103	0.055	0.09
22 August 2011	0.065	0.039	0.09
23 August 2011	0.038	0.018	0.08
24 August 2011	0.035	0.020	0.08
25 August 2011	0.063	0.046	0.08
26 August 2011	0.085	0.048	0.09
29 August 2011	0.084	0.057	0.09
30 August 2011	0.056	0.039	0.08
31 August 2011	0.130	0.097	0.08
1 September 2011	0.127	0.106	0.08
2 September 2011	0.121	0.095	0.08
6 September 2011	0.148	0.114	0.09
7 September 2011	0.111	0.083	0.09
8 September 2011	0.100	0.078	0.09
9 September 2011	0.087	0.062	0.09
12 September 2011	0.095	0.065	0.09
13 September 2011	0.143	0.081	0.09
14 September 2011	0.141	0.082	0.08
15 September 2011	0.206	0.138	0.09
16 September 2011	0.185	0.110	0.09
19 September 2011	0.144	0.107	0.09
20 September 2011	0.165	0.129	0.09
21 September 2011	0.134	0.104	0.08
22 September 2011	0.114	0.096	0.08
23 September 2011	0.155	0.117	0.08
26 September 2011	0.191	0.139	0.08
27 September 2011	0.131	0.096	0.08
28 September 2011	0.090	0.063	0.08
29 September 2011	0.065	0.034	0.08
30 September 2011	0.226	0.120	0.06
3 October 2011	0.163	0.114	0.08
4 October 2011	0.115	0.081	0.07
5 October 2011	0.103	0.079	0.07
6 October 2011	0.105	0.087	0.07
7 October 2011	0.103	0.083	0.07
11 October 2011	0.095	0.077	0.07
12 October 2011	0.084	0.066	0.07
13 October 2011	0.146	0.103	0.07
14 October 2011	0.169	0.129	0.07
17 October 2011	0.229	0.171	0.07
18 October 2011	0.169	0.121	0.07
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.094	0.068	0.07
20 October 2011	0.084	0.063	0.07

21 October 2011	0.070	0.063	0.07
24 October 2011	0.108	0.071	0.07
25 October 2011	0.122	0.094	0.07
26 October 2011	0.095	0.063	0.08
27 October 2011	0.095	0.066	0.07
28 October 2011	0.086	0.062	0.07
31 October 2011	0.175	0.138	0.09
1 November 2011	0.160	0.134	0.08
2 November 2011	0.183	0.140	0.08
3 November 2011	0.148	0.102	0.09
4 November 2011	0.091	0.063	0.08
7 November 2011	0.091	0.071	0.08
8 November 2011	0.089	0.078	0.08
9 November 2011	0.094	0.086	0.08
10 November 2011	0.119	0.099	0.08
14 November 2011	0.153	0.135	0.08
15 November 2011	0.211	0.169	0.09
16 November 2011	0.149	0.112	0.08
17 November 2011	0.124	0.101	0.08
18 November 2011	0.141	0.114	0.08
21 November 2011	0.151	0.113	0.08
22 November 2011	0.186	0.133	0.08
23 November 2011	0.190	0.130	0.09
25 November 2011	0.245	0.156	0.07
28 November 2011	0.209	0.125	0.08
29 November 2011	0.143	0.084	0.08
30 November 2011	0.181	0.130	0.10
1 December 2011	0.154	0.103	0.08
2 December 2011	0.148	0.093	0.08
5 December 2011	0.141	0.092	0.08
6 December 2011	0.140	0.085	0.08
7 December 2011	0.108	0.065	0.08
8 December 2011	0.095	0.076	0.07
9 December 2011	0.105	0.086	0.07
12 December 2011	0.138	0.093	0.07
13 December 2011	0.131	0.083	0.07
14 December 2011	0.117	0.066	0.07
15 December 2011	0.158	0.143	0.07
16 December 2011	0.155	0.128	0.07
19 December 2011	0.120	0.096	0.07
20 December 2011	0.103	0.096	0.07
21 December 2011	0.074	0.038	0.07
22 December 2011	0.060	0.036	0.07
23 December 2011	0.115	0.082	0.08
27 December 2011	0.117	0.076	0.07
28 December 2011	0.071	0.052	0.07
29 December 2011	0.095	0.098	0.07
30 December 2011	0.103	-0.001	0.04
3 January 2012	0.159	0.127	0.07
4 January 2012	0.087	0.065	0.07
5 January 2012	0.082	0.068	0.07
6 January 2012	0.099	0.083	0.07
9 January 2012	0.091	0.081	0.08
10 January 2012	0.080	0.071	0.08
11 January 2012	0.082	0.082	0.08
12 January 2012	0.176	0.130	0.08
13 January 2012	0.211	0.173	0.09
17 January 2012	0.282	0.218	0.09
18 January 2012	0.229	0.186	0.09
19 January 2012	0.224	0.190	0.10
20 January 2012	0.225	0.188	0.09
23 January 2012	0.177	0.147	0.09
24 January 2012	0.152	0.127	0.09
25 January 2012	0.156	0.117	0.08
26 January 2012	0.148	0.117	0.08
27 January 2012	0.149	0.116	0.09
30 January 2012	0.154	0.131	0.09
31 January 2012	0.292	0.241	0.11
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	0.229	0.200	0.11

2 February 2012	0.209	0.183	0.11
3 February 2012	0.197	0.162	0.11
6 February 2012	0.153	0.132	0.11
7 February 2012	0.141	0.116	0.11
8 February 2012	0.136	0.108	0.11
9 February 2012	0.172	0.164	0.11
10 February 2012	0.213	0.182	0.12
13 February 2012	0.222	0.169	0.12
14 February 2012	0.167	0.139	0.12
15 February 2012	0.214	0.162	0.12
16 February 2012	0.160	0.131	0.11
17 February 2012	0.136	0.102	0.09
21 February 2012	0.106	0.084	0.10
22 February 2012	0.095	0.084	0.08
23 February 2012	0.145	0.131	0.08
24 February 2012	0.181	0.158	0.09
27 February 2012	0.206	0.171	0.10
28 February 2012	0.166	0.131	0.10
29 February 2012	0.244	0.191	0.10
1 March 2012	0.232	0.200	0.11
2 March 2012	0.217	0.191	0.11
5 March 2012	0.205	0.186	0.11
6 March 2012	0.204	0.180	0.11
7 March 2012	0.186	0.163	0.11
8 March 2012	0.209	0.204	0.11
9 March 2012	0.224	0.200	0.12
12 March 2012	0.225	0.200	0.12
13 March 2012	0.209	0.187	0.12
14 March 2012	0.206	0.186	0.13
15 March 2012	0.279	0.258	0.14
16 March 2012	0.258	0.228	0.15
19 March 2012	0.222	0.205	0.15
20 March 2012	0.220	0.188	0.15
21 March 2012	0.193	0.155	0.15
22 March 2012	0.171	0.152	0.14
23 March 2012	0.235	0.192	0.14
26 March 2012	0.260	0.214	0.14
27 March 2012	0.224	0.177	0.14
28 March 2012	0.210	0.160	0.13
29 March 2012	0.244	0.157	0.13
30 March 2012	0.289	0.128	0.09
2 April 2012	0.272	0.224	0.15
3 April 2012	0.242	0.209	0.15
4 April 2012	0.272	0.227	0.15
5 April 2012	0.287	0.259	0.15
9 April 2012	0.274	0.231	0.16
10 April 2012	0.243	0.207	0.15
11 April 2012	0.221	0.193	0.16
12 April 2012	0.264	0.212	0.15
13 April 2012	0.226	0.191	0.15
16 April 2012	0.266	0.226	0.15
17 April 2012	0.222	0.188	0.16
18 April 2012	0.186	0.167	0.15
19 April 2012	0.144	0.127	0.13
20 April 2012	0.131	0.117	0.12
23 April 2012	0.136	0.118	0.13
24 April 2012	0.172	0.179	0.14
25 April 2012	0.231	0.188	0.15
26 April 2012	0.180	0.157	0.14
27 April 2012	0.176	0.149	0.13
30 April 2012	0.259	0.238	0.16
1 May 2012	0.238	0.210	0.16
2 May 2012	0.197	0.182	0.15
3 May 2012	0.204	0.196	0.15
4 May 2012	0.218	0.200	0.16
7 May 2012	0.207	0.197	0.16
8 May 2012	0.208	0.190	0.16
9 May 2012	0.196	0.183	0.15
Loading [(MathJax)/jax/output/HTML-CSS/jax.js	0.207	0.198	0.15

11 May 2012	0.211	0.200	0.15
14 May 2012	0.259	0.242	0.16
15 May 2012	0.266	0.253	0.16
16 May 2012	0.227	0.223	0.16
17 May 2012	0.242	0.233	0.16
18 May 2012	0.227	0.209	0.16
21 May 2012	0.228	0.202	0.16
22 May 2012	0.211	0.184	0.16
23 May 2012	0.167	0.149	0.15
24 May 2012	0.228	0.193	0.15
25 May 2012	0.235	0.206	0.15
29 May 2012	0.209	0.179	0.16
30 May 2012	0.196	0.174	0.16
31 May 2012	0.266	0.274	0.16
1 June 2012	0.264	0.244	0.16
4 June 2012	0.255	0.235	0.17
5 June 2012	0.240	0.217	0.17
6 June 2012	0.206	0.185	0.16
7 June 2012	0.202	0.191	0.16
8 June 2012	0.224	0.214	0.17
11 June 2012	0.229	0.218	0.17
12 June 2012	0.262	0.239	0.16
13 June 2012	0.281	0.261	0.17
14 June 2012	0.279	0.260	0.17
15 June 2012	0.306	0.275	0.18
18 June 2012	0.242	0.223	0.17
19 June 2012	0.200	0.173	0.17
20 June 2012	0.182	0.168	0.16
21 June 2012	0.213	0.203	0.17
22 June 2012	0.303	0.256	0.17
25 June 2012	0.270	0.226	0.17
26 June 2012	0.201	0.177	0.16
27 June 2012	0.226	0.187	0.15
28 June 2012	0.234	0.220	0.15
29 June 2012	0.385	0.278	0.09
2 July 2012	0.343	0.297	0.18
3 July 2012	0.285	0.261	0.17
5 July 2012	0.276	0.250	0.17
6 July 2012	0.268	0.224	0.17
9 July 2012	0.214	0.185	0.17
10 July 2012	0.210	0.194	0.17
11 July 2012	0.219	0.199	0.17
12 July 2012	0.251	0.226	0.18
13 July 2012	0.235	0.207	0.19
16 July 2012	0.258	0.237	0.18
17 July 2012	0.226	0.204	0.17
18 July 2012	0.163	0.143	0.16
19 July 2012	0.134	0.120	0.13
20 July 2012	0.161	0.146	0.13
23 July 2012	0.160	0.140	0.14
24 July 2012	0.227	0.208	0.15
25 July 2012	0.235	0.205	0.15
26 July 2012	0.202	0.182	0.14
27 July 2012	0.197	0.172	0.14
30 July 2012	0.182	0.157	0.14
31 July 2012	0.236	0.238	0.13
1 August 2012	0.224	0.211	0.14
2 August 2012	0.231	0.225	0.14
3 August 2012	0.220	0.208	0.14
6 August 2012	0.205	0.190	0.14
7 August 2012	0.194	0.187	0.13
8 August 2012	0.222	0.209	0.13
9 August 2012	0.232	0.224	0.13
10 August 2012	0.212	0.192	0.13
13 August 2012	0.210	0.171	0.13
14 August 2012	0.186	0.170	0.13
15 August 2012	0.244	0.218	0.13
16 August 2012	0.210	0.199	0.13
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.195	0.175	0.13

20 August 2012	0.187	0.169	0.13
21 August 2012	0.180	0.162	0.13
22 August 2012	0.184	0.165	0.13
23 August 2012	0.223	0.204	0.13
24 August 2012	0.237	0.213	0.13
27 August 2012	0.222	0.192	0.13
28 August 2012	0.192	0.162	0.13
29 August 2012	0.178	0.151	0.13
30 August 2012	0.225	0.190	0.14
31 August 2012	0.261	0.263	0.13
4 September 2012	0.261	0.250	0.14
5 September 2012	0.255	0.246	0.16
6 September 2012	0.282	0.270	0.16
7 September 2012	0.271	0.257	0.15
10 September 2012	0.257	0.254	0.15
11 September 2012	0.275	0.263	0.15
12 September 2012	0.278	0.261	0.15
13 September 2012	0.304	0.289	0.15
14 September 2012	0.316	0.304	0.16
17 September 2012	0.274	0.263	0.16
18 September 2012	0.267	0.250	0.16
19 September 2012	0.263	0.249	0.15
20 September 2012	0.263	0.250	0.16
21 September 2012	0.270	0.249	0.15
24 September 2012	0.297	0.260	0.16
25 September 2012	0.348	0.264	0.15
26 September 2012	0.304	0.247	0.15
27 September 2012	0.296	0.236	0.14
28 September 2012	0.483	0.338	0.09
1 October 2012	0.376	0.306	0.15
2 October 2012	0.336	0.300	0.16
3 October 2012	0.316	0.280	0.16
4 October 2012	0.295	0.281	0.15
5 October 2012	0.290	0.277	0.15
9 October 2012	0.282	0.264	0.16
10 October 2012	0.284	0.262	0.16
11 October 2012	0.308	0.278	0.16
12 October 2012	0.318	0.276	0.16
15 October 2012	0.348	0.297	0.16
16 October 2012	0.330	0.273	0.16
17 October 2012	0.291	0.262	0.15
18 October 2012	0.294	0.263	0.15
19 October 2012	0.271	0.239	0.16
22 October 2012	0.228	0.208	0.15
23 October 2012	0.206	0.192	0.15
24 October 2012	0.278	0.237	0.17
25 October 2012	0.325	0.261	0.16
26 October 2012	0.267	0.221	0.16
29 October 2012	0.647	0.526	0.17
31 October 2012	0.600	0.400	0.18
1 November 2012	0.423	0.301	0.17
2 November 2012	0.329	0.250	0.16
5 November 2012	0.275	0.226	0.17
6 November 2012	0.255	0.209	0.16
7 November 2012	0.229	0.195	0.16
8 November 2012	0.280	0.247	0.16
9 November 2012	0.284	0.249	0.16
13 November 2012	0.275	0.246	0.16
14 November 2012	0.294	0.252	0.16
15 November 2012	0.289	0.260	0.16
16 November 2012	0.238	0.224	0.16
19 November 2012	0.205	0.194	0.16
20 November 2012	0.223	0.208	0.16
21 November 2012	0.258	0.229	0.16
23 November 2012	0.309	0.288	0.16
26 November 2012	0.293	0.247	0.16
27 November 2012	0.230	0.209	0.16
28 November 2012	0.225	0.191	0.16
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	0.236	0.212	0.16

30 November 2012	0.316	0.275	0.16
3 December 2012	0.287	0.257	0.16
4 December 2012	0.285	0.264	0.17
5 December 2012	0.287	0.266	0.16
6 December 2012	0.312	0.281	0.16
7 December 2012	0.300	0.260	0.16

Note: A vertical line indicates Hurricane Sandy, October 29, 2012.

Source: DTCC, Federal Reserve Bank of New York

## Exhibit 3

### Top-left panel

#### (13) SOMA Treasury Holdings as Percent of Outstanding

Percent

Years to Maturity	06/30/07 (Pre-Crisis)	09/30/11 (Pre-MEP)	Current
0-3	22.88	11.26	0.51
3-6	15.30	24.95	27.53
6-8	8.87	37.88	37.00
8-10	11.07	15.98	35.68
10-30	15.58	19.89	35.96

Source: Federal Reserve Bank of New York

### Top-right panel

#### (14) MBS Purchase Settlements\*

	\$ Billions
LSAP 1 Avg**	75.99
November 2011	3.55
December 2011	40.00
January 2012	19.70
February 2012	27.00
March 2012	22.00
April 2012	38.30
May 2012	27.75
June 2012	26.80
July 2012	23.35
August 2012	18.65
September 2012	23.60
October 2012	45.65
November 2012	63.80
December 2012	73.63
January 2013	60.68, and a dashed outline indicates 23.88 to be purchased

\* Settlements net of realized dollar roll sales. [Return to text](#)

\*\* Maximum settled monthly amount during LSAP 1 was \$170 billion. [Return to table](#)

Note: Vertical lines indicate reinvestments, beginning in November 2011, and projected settlements, beginning in December 2012.

Source: Federal Reserve Bank of New York, TradeWeb

### Middle-left panel

#### (15) Dollar Roll Implied Financing Rates\*

Basis points

Date	Front Month	Next Month
1 June 2012	-50.03	-65.56
4 June 2012	-67.21	-76.56
5 June 2012	-66.25	-75.65
6 June 2012	-23.26	-49.39
7 June 2012	4.42	-50.22
8 June 2012	-37.25	-76.68
11 June 2012	-34.00	-77.60
12 June 2012	-32.57	-76.53
13 June 2012	-29.50	-37.60
14 June 2012	-21.09	-28.89
15 June 2012	-25.91	-33.94
18 June 2012	-22.12	-34.37
20 June 2012	-29.76	-37.80

21 June 2012		-30.39	-38.54
22 June 2012		-29.48	-37.56
25 June 2012		-30.93	-39.43
26 June 2012		-30.19	-38.56
27 June 2012		-26.44	-39.03
28 June 2012		-14.52	-26.82
29 June 2012		-13.18	-25.21
2 July 2012		-15.02	-27.28
3 July 2012		-5.53	-22.02
5 July 2012		2.34	-22.61
6 July 2012		0.56	-11.32
9 July 2012		-3.55	-36.12
10 July 2012		-13.14	-37.53
11 July 2012		-17.53	-27.87
12 July 2012		-18.02	-28.43
13 July 2012		-21.18	-26.55
16 July 2012		-22.62	-33.56
17 July 2012		-21.81	-32.48
18 July 2012		-22.79	-34.89
19 July 2012		-22.36	-34.27
20 July 2012		-23.54	-37.12
23 July 2012		-29.50	-40.04
24 July 2012		-38.60	-51.54
25 July 2012		-38.37	-55.53
26 July 2012		-37.96	-58.88
27 July 2012		-43.98	-62.13
30 July 2012		-41.06	-65.23
31 July 2012		-41.62	-66.44
1 August 2012		-45.18	-64.52
2 August 2012		-45.68	-66.00
3 August 2012		-52.87	-71.99
6 August 2012		-44.54	-67.73
7 August 2012		-8.34	-51.33
8 August 2012		-46.88	12.52
9 August 2012		-51.51	12.75
10 August 2012		-52.26	-48.16
13 August 2012		-47.50	-44.45
14 August 2012		-45.27	-42.07
15 August 2012		-46.64	-38.60
16 August 2012		-45.69	-41.58
17 August 2012		-46.45	-42.33
20 August 2012		-47.26	-39.26
21 August 2012		-52.14	-39.08
22 August 2012		-53.85	-40.19
23 August 2012		-57.56	-45.59
24 August 2012		-56.32	-43.68
27 August 2012		-52.65	-41.54
28 August 2012		-48.25	-41.44
29 August 2012		-37.26	-39.80
30 August 2012		-33.56	-37.08
31 August 2012		-23.79	-33.01
4 September 2012		-18.51	-32.67
5 September 2012		-8.70	-28.57
6 September 2012		2.92	-22.43
7 September 2012		0.87	-24.98
10 September 2012		-24.32	-114.46
11 September 2012		-20.23	-114.34
12 September 2012		-23.25	-45.05
13 September 2012		-44.66	-84.12
14 September 2012		-32.07	-86.40
17 September 2012		-19.61	-80.93
18 September 2012		-12.07	-62.62
19 September 2012		-17.52	-56.16
20 September 2012		-18.54	-72.81
21 September 2012		-98.58	-169.05
24 September 2012		-99.21	-184.94
25 September 2012		-25.83	-94.58
26 September 2012		-22.86	-98.22
Loading [MathJax]/jax/output/HTML-CSS/jax.js		-13.59	-73.00

28 September 2012	-13.24	-65.40
1 October 2012	-5.86	-61.74
2 October 2012	-6.62	-64.85
3 October 2012	-2.13	-67.92
4 October 2012	3.44	-62.31
5 October 2012	-60.54	-74.49
9 October 2012	-50.58	-74.50
10 October 2012	-53.61	-62.47
11 October 2012	-55.11	-52.78
12 October 2012	-54.94	-57.07
15 October 2012	-49.29	-51.60
16 October 2012	-46.27	-46.60
17 October 2012	-41.49	-39.27
18 October 2012	-34.99	-36.63
19 October 2012	-28.87	-37.25
22 October 2012	-22.92	-36.21
23 October 2012	-19.67	-33.58
24 October 2012	-23.30	-36.19
25 October 2012	-21.29	-28.42
26 October 2012	-19.67	-29.22
29 October 2012	-20.88	-30.72
31 October 2012	-22.03	-32.70
1 November 2012	-10.50	-22.41
2 November 2012	-11.40	-20.09
5 November 2012	-3.36	-18.93
6 November 2012	-0.28	-13.29
7 November 2012	0.33	-16.51
8 November 2012	-10.15	-18.48
9 November 2012	-18.08	-65.40
13 November 2012	-12.74	-44.49
14 November 2012	-10.08	-38.44
15 November 2012	-11.46	-36.89
16 November 2012	-9.26	-41.16
19 November 2012	-7.74	-37.82
20 November 2012	-6.25	-34.60
21 November 2012	-4.58	-31.27
23 November 2012	-4.42	-30.65
26 November 2012	-2.79	-26.15
27 November 2012	-4.99	-31.30
28 November 2012	-1.13	-26.96
29 November 2012	-0.75	-25.46
30 November 2012	2.63	-30.89
3 December 2012	11.14	-27.02
4 December 2012	10.48	-29.44
5 December 2012	10.43	-28.98
6 December 2012	15.21	-26.98
7 December 2012	-22.84	-19.12

\* 30-year FNMA dollar rolls for 3.0% coupon. Front month is currently December-January roll; next month is January-February roll. [Return to text](#)

Note: A dashed horizontal line indicates Fails Charge at -200 basis points. A vertical line indicates the September 12-13, 2012 FOMC meeting.

Source: J.P. Morgan

## Middle-right panel (16) MBS Option-Adjusted Spreads to Treasury\*

Basis points

Date	3.0% Coupon	5.5% Coupon
1 August 2011	47.26	46.11
2 August 2011	47.13	47.12
3 August 2011	45.55	46.50
4 August 2011	47.85	50.83
5 August 2011	54.13	51.75
8 August 2011	60.77	57.63
9 August 2011	58.99	60.62
10 August 2011	46.04	39.72
11 August 2011	41.72	35.67
12 August 2011	45.02	33.56
15 August 2011	47.03	34.62
Loading [MathJax]/jax/output/HTML-CSS/jax.js	48.12	37.54

17 August 2011	50.00	39.67
18 August 2011	57.91	42.61
19 August 2011	63.41	51.56
22 August 2011	64.44	58.12
23 August 2011	62.71	62.30
24 August 2011	58.84	64.45
25 August 2011	57.16	72.61
26 August 2011	57.95	66.59
29 August 2011	57.77	65.65
30 August 2011	59.55	62.67
31 August 2011	59.13	58.76
1 September 2011	60.93	54.35
2 September 2011	68.43	61.60
6 September 2011	69.73	62.98
7 September 2011	67.86	62.81
8 September 2011	69.12	71.36
9 September 2011	72.28	67.93
12 September 2011	75.75	71.90
13 September 2011	71.78	68.24
14 September 2011	71.74	69.59
15 September 2011	69.76	66.83
16 September 2011	71.22	69.14
19 September 2011	71.51	70.94
20 September 2011	71.50	74.68
21 September 2011	67.09	69.65
22 September 2011	60.12	64.72
23 September 2011	65.72	73.68
26 September 2011	59.96	78.10
27 September 2011	57.95	81.37
28 September 2011	59.78	76.59
29 September 2011	60.10	79.58
30 September 2011	61.62	77.33
3 October 2011	68.10	77.14
4 October 2011	70.33	83.91
5 October 2011	68.09	83.61
6 October 2011	65.94	87.70
7 October 2011	67.33	86.55
11 October 2011	63.12	76.54
12 October 2011	58.01	74.58
13 October 2011	60.68	76.06
14 October 2011	60.93	77.59
17 October 2011	62.83	79.72
18 October 2011	58.06	80.01
19 October 2011	57.64	78.21
20 October 2011	56.44	75.84
21 October 2011	53.55	74.39
24 October 2011	53.62	87.57
25 October 2011	58.06	84.77
26 October 2011	55.42	76.84
27 October 2011	46.72	69.05
28 October 2011	47.63	66.68
31 October 2011	51.45	72.01
1 November 2011	57.10	74.07
2 November 2011	56.14	75.16
3 November 2011	56.78	74.25
4 November 2011	55.85	73.06
7 November 2011	58.34	77.58
8 November 2011	55.19	74.04
9 November 2011	64.30	83.01
10 November 2011	59.97	81.46
14 November 2011	63.22	89.18
15 November 2011	62.28	86.80
16 November 2011	64.25	80.67
17 November 2011	67.61	84.23
18 November 2011	66.87	81.92
21 November 2011	68.98	84.60
22 November 2011	69.12	88.45
23 November 2011	73.88	92.74
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	72.07	92.12

28 November 2011	69.58	88.99
29 November 2011	65.20	83.47
30 November 2011	55.53	75.09
1 December 2011	54.24	75.91
2 December 2011	56.72	79.01
5 December 2011	55.56	56.97
6 December 2011	53.10	55.44
7 December 2011	52.24	50.10
8 December 2011	56.59	68.26
9 December 2011	55.91	68.06
12 December 2011	59.93	69.81
13 December 2011	60.33	69.88
14 December 2011	61.07	69.80
15 December 2011	63.05	72.44
16 December 2011	63.64	77.98
19 December 2011	64.45	82.76
20 December 2011	60.72	76.54
21 December 2011	57.99	80.64
22 December 2011	57.96	78.52
23 December 2011	55.73	76.32
27 December 2011	55.93	74.16
28 December 2011	61.19	74.12
29 December 2011	57.60	69.24
30 December 2011	58.92	68.74
3 January 2012	49.07	61.02
4 January 2012	46.35	61.02
5 January 2012	42.49	62.67
6 January 2012	39.08	63.42
9 January 2012	35.77	62.60
10 January 2012	43.49	61.98
11 January 2012	47.29	64.46
12 January 2012	44.45	62.03
13 January 2012	47.28	64.46
17 January 2012	50.35	66.56
18 January 2012	48.55	67.21
19 January 2012	47.93	67.17
20 January 2012	44.55	65.57
23 January 2012	39.60	62.61
24 January 2012	38.36	64.04
25 January 2012	39.94	69.94
26 January 2012	40.90	70.51
27 January 2012	40.55	67.47
30 January 2012	45.67	69.83
31 January 2012	46.33	71.94
1 February 2012	39.87	68.14
2 February 2012	36.48	64.51
3 February 2012	32.51	60.11
6 February 2012	32.30	59.91
7 February 2012	29.01	56.51
8 February 2012	26.77	51.37
9 February 2012	30.63	55.86
10 February 2012	34.36	56.66
13 February 2012	32.02	52.34
14 February 2012	32.59	51.76
15 February 2012	32.68	50.85
16 February 2012	32.07	51.79
17 February 2012	34.12	52.46
21 February 2012	35.89	52.66
22 February 2012	35.61	52.29
23 February 2012	33.00	49.31
24 February 2012	35.99	52.35
27 February 2012	38.30	55.77
28 February 2012	36.98	56.06
29 February 2012	39.78	56.32
1 March 2012	37.88	56.07
2 March 2012	39.09	58.96
5 March 2012	37.80	58.47
6 March 2012	39.45	59.32
Loading [(MathJax)/jax/output/HTML-CSS/jax.js	39.77	64.30

8 March 2012	38.54	66.21
9 March 2012	35.95	59.04
12 March 2012	36.43	58.32
13 March 2012	36.20	55.80
14 March 2012	37.90	54.03
15 March 2012	36.47	53.04
16 March 2012	34.21	50.01
19 March 2012	36.50	49.29
20 March 2012	37.29	47.96
21 March 2012	36.26	47.75
22 March 2012	37.69	48.78
23 March 2012	40.07	51.43
26 March 2012	38.05	49.84
27 March 2012	35.77	49.41
28 March 2012	37.39	48.71
29 March 2012	36.76	50.17
30 March 2012	34.55	49.57
2 April 2012	34.05	48.70
3 April 2012	35.99	50.44
4 April 2012	35.77	50.56
5 April 2012	37.03	48.90
6 April 2012	37.19	45.76
9 April 2012	35.93	41.93
10 April 2012	40.41	49.12
11 April 2012	41.40	48.31
12 April 2012	41.56	47.06
13 April 2012	43.31	48.16
16 April 2012	43.91	49.46
17 April 2012	44.58	50.11
18 April 2012	44.17	49.37
19 April 2012	41.73	48.27
20 April 2012	42.09	50.23
23 April 2012	42.85	51.45
24 April 2012	42.60	50.12
25 April 2012	43.42	51.02
26 April 2012	42.89	51.07
27 April 2012	42.86	52.95
30 April 2012	42.93	54.59
1 May 2012	40.81	49.87
2 May 2012	43.44	50.95
3 May 2012	43.72	48.85
4 May 2012	37.40	51.63
7 May 2012	37.20	51.57
8 May 2012	39.38	53.87
9 May 2012	37.59	54.60
10 May 2012	36.11	59.12
11 May 2012	37.56	60.50
14 May 2012	37.73	63.66
15 May 2012	38.43	64.64
16 May 2012	37.16	63.13
17 May 2012	37.31	64.12
18 May 2012	37.49	64.17
21 May 2012	41.54	67.29
22 May 2012	39.65	65.57
23 May 2012	43.82	68.82
24 May 2012	42.50	71.31
25 May 2012	43.89	73.38
29 May 2012	46.28	74.98
30 May 2012	48.28	77.11
31 May 2012	46.50	77.28
1 June 2012	45.22	79.69
4 June 2012	50.28	81.36
5 June 2012	52.41	85.37
6 June 2012	46.82	77.47
7 June 2012	43.04	76.94
8 June 2012	44.47	76.54
11 June 2012	43.40	75.35
12 June 2012	43.83	70.77
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	44.32	71.22

14 June 2012	43.83	72.84
15 June 2012	43.53	75.61
18 June 2012	41.47	77.24
19 June 2012	37.30	75.60
20 June 2012	42.13	76.70
21 June 2012	40.56	70.83
22 June 2012	40.38	69.31
25 June 2012	36.37	63.77
26 June 2012	40.07	67.29
27 June 2012	35.53	66.65
28 June 2012	36.23	70.35
29 June 2012	35.31	70.04
2 July 2012	33.26	69.37
3 July 2012	33.66	69.88
5 July 2012	32.82	68.94
6 July 2012	28.11	68.35
9 July 2012	28.65	64.43
10 July 2012	24.90	61.60
11 July 2012	25.11	57.17
12 July 2012	26.54	57.77
13 July 2012	32.05	61.12
16 July 2012	28.05	60.42
17 July 2012	29.17	62.63
18 July 2012	25.26	61.94
19 July 2012	26.21	61.18
20 July 2012	23.93	60.72
23 July 2012	21.03	59.78
24 July 2012	19.51	59.76
25 July 2012	20.89	58.22
26 July 2012	22.24	54.22
27 July 2012	26.76	53.11
30 July 2012	22.86	51.85
31 July 2012	19.38	50.86
1 August 2012	19.67	49.73
2 August 2012	22.58	51.94
3 August 2012	23.85	51.61
6 August 2012	25.01	54.46
7 August 2012	24.52	53.06
8 August 2012	20.23	49.70
9 August 2012	20.86	49.65
10 August 2012	21.98	51.29
13 August 2012	22.33	52.11
14 August 2012	22.50	50.47
15 August 2012	27.28	57.39
16 August 2012	27.59	57.96
17 August 2012	27.16	59.25
20 August 2012	25.54	58.52
21 August 2012	26.52	59.07
22 August 2012	22.63	54.14
23 August 2012	20.84	54.73
24 August 2012	23.40	52.92
27 August 2012	21.92	52.46
28 August 2012	21.81	51.87
29 August 2012	25.46	52.92
30 August 2012	25.43	53.62
31 August 2012	20.78	52.60
4 September 2012	20.79	51.79
5 September 2012	21.12	51.03
6 September 2012	21.87	49.96
7 September 2012	12.64	49.83
10 September 2012	13.38	50.65
11 September 2012	12.64	51.58
12 September 2012	10.12	48.90
13 September 2012	-14.27	37.58
14 September 2012	-20.83	30.26
17 September 2012	-16.20	30.46
18 September 2012	-14.23	33.99
19 September 2012	-18.76	32.54
Loading [(MathJax)/jax/output/HTML-CSS/jax.js	-23.37	31.04

21 September 2012	-33.94	28.00
24 September 2012	-43.50	24.87
25 September 2012	-54.47	21.28
26 September 2012	-57.85	25.07
27 September 2012	-34.32	30.64
28 September 2012	-31.21	39.45
1 October 2012	-36.21	38.82
2 October 2012	-44.23	43.99
3 October 2012	-33.67	45.97
4 October 2012	-23.93	44.25
5 October 2012	-26.17	39.51
9 October 2012	-20.33	43.85
10 October 2012	-22.84	42.83
11 October 2012	-24.52	42.42
12 October 2012	-21.89	43.31
15 October 2012	-18.18	44.64
16 October 2012	-18.65	41.80
17 October 2012	-15.50	39.92
18 October 2012	-11.44	40.54
19 October 2012	-12.65	37.64
22 October 2012	-13.36	35.68
23 October 2012	-12.71	37.23
24 October 2012	-10.99	38.63
25 October 2012	-10.13	38.35
26 October 2012	-11.91	41.49
29 October 2012	-10.70	42.36
31 October 2012	-10.46	43.87
1 November 2012	-6.93	45.00
2 November 2012	-10.93	43.15
5 November 2012	-11.66	43.56
6 November 2012	-5.62	46.59
7 November 2012	-10.94	53.91
8 November 2012	-10.71	57.71
9 November 2012	-8.90	66.83
13 November 2012	-2.46	80.85
14 November 2012	4.37	84.66
15 November 2012	-0.07	83.78
16 November 2012	-4.46	80.71
19 November 2012	-3.96	78.03
20 November 2012	-3.92	76.57
21 November 2012	-2.06	76.02
23 November 2012	-1.64	75.94
26 November 2012	-4.94	76.35
27 November 2012	-9.83	76.70
28 November 2012	-8.13	79.23
29 November 2012	1.72	83.33
30 November 2012	1.65	86.12
3 December 2012	0.24	86.40
4 December 2012	-0.07	86.32
5 December 2012	1.09	87.47
6 December 2012	5.43	90.94
7 December 2012	6.39	88.12

\* FNMA 30-year OAS to Treasury. [Return to text](#)

Note: A vertical line indicates the September 12-13, 2012 FOMC meeting.

Source: Barclays

## Bottom-left panel (17) Expected Pace of Asset Purchases\* (One Year Ahead)

Asset: \$ Billions	Percent of Dealers
Treasuries: 0	23.81
Treasuries: (0, 20]	14.29
Treasuries: (20, 45)	14.29
Treasuries: 45	47.62
MBS: 0	19.05
MBS: (0, 20]	9.52
Loading [MathJax]/jax/output/HTML-CSS/jax.js	9.52

\* Figures from flash survey after Employment Situation report. [Return to text](#)

Source: Federal Reserve Bank of New York Survey

### Bottom-right panel (18) Probability Distribution of SOMA Portfolio Holdings

(Average End-2014 Forecasts)  
Percent

Par Amount (\$ Billions)	October Survey	December Survey
<2,500	0.57	1.14
2,500-3,000	4.48	5.57
3,000-3,500	22.10	17.38
3,500-4,000	34.19	34.62
4,000-4,500	18.19	19.76
4,500-5,000	7.90	13.33
>5,000	12.62	8.19

\* Figures from flash survey after Employment Situation report. [Return to table](#)

Source: Federal Reserve Bank of New York Survey

### Exhibit 4 (Last)

#### Top-left panel (19) Overall Policy Forecast Dispersion in Fed Funds Equivalents

(12 Months Ahead)  
Percent

Date	Disagreement	Uncertainty
20 March 2007	0.477	0.254
8 May 2007	0.498	0.249
27 June 2007	0.309	0.193
6 August 2007	0.385	0.214
17 September 2007	0.433	0.222
30 October 2007	0.398	0.240
10 December 2007	0.473	0.287
29 January 2008	0.734	0.229
17 March 2008	0.337	0.278
29 April 2008	0.416	0.248
24 June 2008	0.453	0.275
4 August 2008	0.430	0.248
15 September 2008	0.514	0.239
28 October 2008	0.436	0.235
15 December 2008	0.261	0.194
27 January 2009	0.188	0.241
17 March 2009	0.178	0.255
28 April 2009	0.195	0.255
23 June 2009	0.209	0.269
11 August 2009	0.264	0.149
22 September 2009	0.273	0.138
3 November 2009	0.357	0.156
15 December 2009	0.557	0.250
26 January 2010	0.557	0.250
15 March 2010	0.517	0.280
27 April 2010	0.635	0.236
22 June 2010	0.441	0.200
9 August 2010	0.392	0.228
20 September 2010	0.182	0.175
2 November 2010	0.220	0.156
13 December 2010	0.104	0.097
25 January 2011	0.283	ND
14 March 2011	0.325	ND
26 April 2011	0.335	ND
21 June 2011	0.234	ND
8 August 2011	0.236	ND
1 November 2011	0.272	ND
24 January 2012	0.303	ND
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.264	ND

31 July 2012		0.284	ND
12 September 2012		0.231	ND
23 October 2012		0.159	0.285
11 December 2012		0.109	0.303

Note: A vertical line indicates "Including Balance Sheet" near the end of 2010. Dashed lines (to the left of the vertical line) are measures for fed funds only; solid lines (to the right of the vertical line) are overall policy uncertainty and disagreement.

Source: Federal Reserve Bank of New York Survey, Wallis (2005)

## Top-right panel (20) Quarters Between End of Purchases and First Rate Hike

Percent of Dealers

Quarters	October Survey	December Survey
-2	4.76	4.76
-1	0.00	0.00
0	0.00	4.76
1	0.00	4.76
2	4.76	4.76
3	0.00	4.76
4	19.05	9.52
5	23.81	14.29
6	23.81	38.10
7	9.52	4.76
8	4.76	0.00
9	4.76	9.52
10	4.76	0.00

Source: Federal Reserve Bank of New York Survey

## Appendix 2: Materials used by Mses. Ihrig and Remache

Material for

**FOMC Presentation:** *Options for Continuation of Open-Ended Asset Purchases in 2013*

Jane Ihrig and Julie Remache

December 11, 2012

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

### Exhibit 1

#### Top-left panel Purchase Programs

\$ Billions

	Total Size	2013 Purchases
Option 1	750	500
Option 3	1250	1000
Option 6	250	0

\* Includes purchases from October through December 2012. [Return to table](#)

#### Top-right panel SOMA Holdings

Monthly

\$ Billions

Period	Option 1	Option 3	Option 6
January 2011	2238	2238	2238
February 2011	2320	2320	2320
March 2011	2410	2410	2410
April 2011	2472	2472	2472
May 2011	2567	2567	2567
June 2011	2645	2645	2645
July 2011	2648	2648	2648
August 2011	2647	2647	2647
September 2011	2644	2644	2644
October 2011	2620	2620	2620

November 2011	2605	2605	2605
December 2011	2605	2605	2605
January 2012	2597	2597	2597
February 2012	2603	2603	2603
March 2012	2594	2594	2594
April 2012	2603	2603	2603
May 2012	2606	2606	2606
June 2012	2606	2606	2606
July 2012	2589	2589	2589
August 2012	2573	2573	2573
September 2012	2564	2564	2564
October 2012	2568	2568	2568
November 2012	2600	2600	2601
December 2012	2650	2648	2652
January 2013	2735	2732	2694
February 2013	2822	2819	2719
March 2013	2909	2906	2725
April 2013	2997	2993	2727
May 2013	3084	3081	2730
June 2013	3172	3168	2732
July 2013	3214	3256	2735
August 2013	3239	3344	2738
September 2013	3247	3432	2742
October 2013	3250	3520	2744
November 2013	3251	3607	2746
December 2013	3252	3693	2746
January 2014	3253	3734	2747
February 2014	3254	3756	2747
March 2014	3255	3762	2748
April 2014	3256	3763	2749
May 2014	3257	3764	2749
June 2014	3257	3765	2750
July 2014	3258	3765	2750
August 2014	3258	3766	2750
September 2014	3258	3766	2751
October 2014	3258	3766	2751
November 2014	3258	3766	2751
December 2014	3258	3766	2751
January 2015	3259	3767	2752
February 2015	3260	3767	2753
March 2015	3254	3761	2748
April 2015	3244	3749	2739
May 2015	3232	3736	2730
June 2015	3220	3722	2720
July 2015	3208	3708	2710
August 2015	3196	3695	2700
September 2015	3184	3681	2690
October 2015	3173	3668	2681
November 2015	3161	3654	2671
December 2015	3149	3641	2661
January 2016	3130	3620	2645
February 2016	3073	3559	2591
March 2016	3028	3510	2550
April 2016	2979	3458	2504
May 2016	2919	3394	2448
June 2016	2884	3356	2417
July 2016	2853	3321	2389
August 2016	2819	3283	2358
September 2016	2791	3251	2334
October 2016	2763	3220	2310
November 2016	2718	3171	2269
December 2016	2685	3135	2239
January 2017	2656	3101	2213
February 2017	2616	3058	2177
March 2017	2585	3023	2149
April 2017	2551	2986	2119
May 2017	2500	2931	2072
June 2017	2468	2896	2044
Loading [MathJax]/jax/output/HTML-CSS/jax.js	2434	2858	2019

August 2017	2388	2808	1982
September 2017	2357	2773	1960
October 2017	2329	2741	1941
November 2017	2285	2694	1907
December 2017	2246	2651	1877
January 2018	2210	2606	1845
February 2018	2160	2547	1798
March 2018	2126	2503	1768
April 2018	2089	2457	1734
May 2018	2027	2385	1676
June 2018	1992	2342	1645
July 2018	1948	2294	1609
August 2018	1891	2233	1595
September 2018	1859	2197	1604
October 2018	1818	2152	1612
November 2018	1748	2079	1620
December 2018	1711	2038	1628
January 2019	1684	2003	1637
February 2019	1629	1936	1645
March 2019	1638	1892	1654
April 2019	1647	1839	1663
May 2019	1656	1758	1671
June 2019	1665	1713	1680
July 2019	1675	1677	1689
August 2019	1684	1637	1698
September 2019	1693	1646	1706
October 2019	1704	1654	1715
November 2019	1713	1663	1724
December 2019	1722	1672	1733
January 2020	1731	1681	1742
February 2020	1741	1691	1751
March 2020	1750	1700	1761
April 2020	1760	1709	1770
May 2020	1769	1719	1779
June 2020	1779	1728	1789
July 2020	1788	1737	1798
August 2020	1798	1747	1808
September 2020	1807	1757	1817
October 2020	1817	1766	1826
November 2020	1826	1776	1836
December 2020	1836	1786	1845
January 2021	1845	1795	1854
February 2021	1855	1805	1864
March 2021	1864	1814	1873
April 2021	1873	1831	1882
May 2021	1883	1841	1892
June 2021	1892	1850	1901
July 2021	1901	1868	1911
August 2021	1910	1878	1920
September 2021	1920	1887	1929
October 2021	1929	1906	1939
November 2021	1939	1915	1948
December 2021	1948	1924	1958
January 2022	1958	1944	1967
February 2022	1967	1954	1977
March 2022	1977	1964	1987
April 2022	1987	1981	1997
May 2022	1997	1991	2007
June 2022	2007	2000	2017
July 2022	2017	2010	2027
August 2022	2027	2020	2037
September 2022	2037	2030	2047
October 2022	2047	2040	2057
November 2022	2057	2050	2068
December 2022	2067	2060	2078
January 2023	2078	2071	2088
February 2023	2089	2082	2099
March 2023	2099	2092	2110
Loading [MathJax]/jax/output/HTML-CSS/jax.js	2110	2103	2120

May 2023	2121	2113	2131
June 2023	2131	2124	2142
July 2023	2142	2135	2153
August 2023	2153	2146	2164
September 2023	2164	2156	2175
October 2023	2175	2167	2185
November 2023	2185	2178	2196
December 2023	2196	2189	2207
January 2024	2208	2200	2219
February 2024	2219	2212	2230
March 2024	2231	2223	2242
April 2024	2242	2235	2253
May 2024	2254	2246	2265
June 2024	2265	2258	2276
July 2024	2277	2269	2288
August 2024	2288	2281	2300
September 2024	2300	2293	2311
October 2024	2312	2304	2323
November 2024	2324	2316	2335
December 2024	2335	2328	2347
January 2025	2348	2340	2359
February 2025	2360	2352	2371
March 2025	2372	2365	2384
April 2025	2385	2377	2396
May 2025	2397	2389	2409
June 2025	2410	2402	2421
July 2025	2422	2414	2434
August 2025	2435	2427	2446
September 2025	2447	2439	2459
October 2025	2460	2452	2471
November 2025	2472	2464	2484
December 2025	2485	2477	2497

## Bottom-left panel Unemployment Rate

Percent

Period	Option 1	Option 3	Option 6
2011:Q1	8.99	8.99	8.99
2011:Q2	9.07	9.07	9.07
2011:Q3	9.06	9.06	9.06
2011:Q4	8.71	8.71	8.71
2012:Q1	8.24	8.24	8.24
2012:Q2	8.17	8.17	8.17
2012:Q3	8.05	8.05	8.05
2012:Q4	8.02	8.02	8.01
2013:Q1	7.97	7.95	7.98
2013:Q2	7.95	7.92	7.99
2013:Q3	7.88	7.82	7.95
2013:Q4	7.78	7.68	7.89
2014:Q1	7.64	7.51	7.78
2014:Q2	7.49	7.33	7.66
2014:Q3	7.33	7.13	7.53
2014:Q4	7.16	6.94	7.39
2015:Q1	6.92	6.68	7.17
2015:Q2	6.68	6.43	6.95
2015:Q3	6.44	6.18	6.73
2015:Q4	6.21	5.94	6.50
2016:Q1	5.98	5.71	6.28
2016:Q2	5.78	5.52	6.09
2016:Q3	5.62	5.36	5.92
2016:Q4	5.49	5.24	5.78
2017:Q1	5.38	5.14	5.66
2017:Q2	5.28	5.07	5.55
2017:Q3	5.20	5.01	5.45
2017:Q4	5.12	4.96	5.36
2018:Q1	5.13	4.99	5.34
2018:Q2	5.15	5.03	5.34
Loading [MathJax]/jax/output/HTML-CSS/jax.js	5.18	5.09	5.35

2018:Q4	5.22	5.14	5.36
2019:Q1	5.26	5.19	5.37
2019:Q2	5.28	5.23	5.37
2019:Q3	5.30	5.25	5.37
2019:Q4	5.30	5.26	5.35
2020:Q1	5.29	5.27	5.33
2020:Q2	5.28	5.27	5.31
2020:Q3	5.27	5.26	5.29
2020:Q4	5.26	5.26	5.27
2021:Q1	5.25	5.25	5.25
2021:Q2	5.24	5.25	5.24
2021:Q3	5.24	5.24	5.23
2021:Q4	5.23	5.24	5.22
2022:Q1	5.22	5.23	5.21
2022:Q2	5.21	5.22	5.20
2022:Q3	5.20	5.21	5.19
2022:Q4	5.19	5.20	5.18
2023:Q1	5.18	5.19	5.17
2023:Q2	5.17	5.17	5.16
2023:Q3	5.15	5.16	5.14
2023:Q4	5.14	5.14	5.13
2024:Q1	5.13	5.13	5.12
2024:Q2	5.12	5.12	5.11
2024:Q3	5.11	5.11	5.10
2024:Q4	5.10	5.10	5.09
2025:Q1	5.09	5.09	5.08
2025:Q2	5.08	5.08	5.08
2025:Q3	5.07	5.07	5.07
2025:Q4	5.06	5.06	5.06

### Bottom-right panel Core PCE Inflation (4-qtr)

Percent

Period	Option 1	Option 3	Option 6
2011:Q1	1.12	1.12	1.12
2011:Q2	1.34	1.34	1.34
2011:Q3	1.58	1.58	1.58
2011:Q4	1.72	1.72	1.72
2012:Q1	1.94	1.94	1.94
2012:Q2	1.80	1.80	1.80
2012:Q3	1.61	1.61	1.61
2012:Q4	1.62	1.66	1.58
2013:Q1	1.46	1.52	1.39
2013:Q2	1.43	1.52	1.32
2013:Q3	1.54	1.66	1.39
2013:Q4	1.60	1.71	1.45
2014:Q1	1.62	1.74	1.46
2014:Q2	1.64	1.77	1.47
2014:Q3	1.65	1.79	1.48
2014:Q4	1.67	1.81	1.49
2015:Q1	1.67	1.81	1.49
2015:Q2	1.68	1.82	1.49
2015:Q3	1.69	1.84	1.50
2015:Q4	1.70	1.85	1.51
2016:Q1	1.73	1.88	1.54
2016:Q2	1.77	1.92	1.58
2016:Q3	1.82	1.97	1.64
2016:Q4	1.88	2.03	1.71
2017:Q1	1.93	2.07	1.76
2017:Q2	1.96	2.10	1.80
2017:Q3	1.99	2.12	1.83
2017:Q4	2.01	2.13	1.86
2018:Q1	2.02	2.13	1.88
2018:Q2	2.03	2.13	1.90
2018:Q3	2.03	2.12	1.92
2018:Q4	2.03	2.11	1.93
2019:Q1	2.03	2.09	1.95
Loading [MathJax]/jax/output/HTML-CSS/jax.js	2.03	2.08	1.96

2019:Q3	2.02	2.06	1.97
2019:Q4	2.02	2.05	1.98
2020:Q1	2.02	2.03	1.99
2020:Q2	2.02	2.02	2.00
2020:Q3	2.01	2.01	2.01
2020:Q4	2.01	2.01	2.02
2021:Q1	2.02	2.00	2.04
2021:Q2	2.02	2.00	2.04
2021:Q3	2.02	1.99	2.05
2021:Q4	2.02	1.99	2.06
2022:Q1	2.02	1.99	2.06
2022:Q2	2.02	1.99	2.07
2022:Q3	2.02	1.99	2.07
2022:Q4	2.03	1.99	2.08
2023:Q1	2.03	1.99	2.08
2023:Q2	2.03	2.00	2.08
2023:Q3	2.03	2.00	2.08
2023:Q4	2.03	2.00	2.08
2024:Q1	2.04	2.01	2.08
2024:Q2	2.04	2.01	2.08
2024:Q3	2.04	2.02	2.08
2024:Q4	2.04	2.02	2.08
2025:Q1	2.05	2.03	2.08
2025:Q2	2.05	2.03	2.08
2025:Q3	2.05	2.03	2.08
2025:Q4	2.05	2.04	2.08

## Exhibit 2

### Top-left panel

#### (1) Annual Remittances to Treasury

\$ Billions

Period	Option 1	Option 3	Option 6
2010	79.27	79.27	79.27
2011	75.42	75.42	75.42
2012	85.35	85.28	85.53
2013	70.66	71.99	65.35
2014	71.99	80.53	64.56
2015	67.33	75.07	60.66
2016	24.62	21.34	28.90
2017	1.60	0.00	11.89
2018	0.00	0.00	11.45
2019	2.18	0.00	17.02
2020	11.31	0.00	21.82
2021	41.38	0.00	44.39
2022	47.41	37.74	50.32
2023	51.29	49.14	54.00
2024	54.78	52.73	57.45
2025	58.26	56.18	61.11

Inset: Peak Deferred Asset: Option 1: \$4B (2018); Option 3: \$45B (2020); Option 6: N/A.

Source: Federal Reserve Board of Governors

### Top-right panel

#### (2) Federal Debt-to-GDP Ratio

Percent

Period	Option 1	Option 3	Option 6
28 February 2011	65.11	65.11	65.11
31 May 2011	64.91	64.91	64.91
31 August 2011	66.79	66.79	66.79
30 November 2011	68.23	68.23	68.23
29 February 2012	70.11	70.11	70.11
31 May 2012	71.43	71.43	71.43
31 August 2012	72.26	72.26	72.26
30 November 2012	73.25	73.25	73.25
Loading [MathJax]/jax/output/HTML-CSS/jax.js	74.09	74.02	74.17
31 May 2013	74.64	74.50	74.82

31 August 2013	75.05	74.81	75.35
30 November 2013	75.39	75.04	75.81
28 February 2014	75.53	75.06	76.08
31 May 2014	75.61	75.03	76.30
31 August 2014	75.67	74.97	76.49
30 November 2014	75.69	74.88	76.65
28 February 2015	75.58	74.66	76.67
31 May 2015	75.41	74.37	76.62
31 August 2015	75.19	74.05	76.52
30 November 2015	74.93	73.69	76.39
29 February 2016	74.59	73.26	76.15
31 May 2016	74.36	72.95	76.02
31 August 2016	74.19	72.71	75.94
30 November 2016	74.08	72.55	75.92
28 February 2017	74.02	72.44	75.93
31 May 2017	74.01	72.38	75.98
31 August 2017	74.04	72.38	76.08
30 November 2017	74.13	72.44	76.21
28 February 2018	74.30	72.59	76.43
31 May 2018	74.54	72.81	76.69
31 August 2018	74.83	73.08	77.00
30 November 2018	75.14	73.39	77.33
28 February 2019	75.48	73.72	77.67
31 May 2019	75.83	74.07	78.02
31 August 2019	76.20	74.44	78.38
30 November 2019	76.60	74.85	78.77
29 February 2020	77.01	75.29	79.17
31 May 2020	77.46	75.75	79.60
31 August 2020	77.92	76.25	80.04
30 November 2020	78.40	76.76	80.50
28 February 2021	78.88	77.31	80.97
31 May 2021	79.38	77.86	81.44
31 August 2021	79.87	78.42	81.91
30 November 2021	80.36	78.98	82.37
28 February 2022	80.84	79.51	82.82
31 May 2022	81.30	80.00	83.25
31 August 2022	81.76	80.48	83.68
30 November 2022	82.20	80.94	84.09
28 February 2023	82.62	81.39	84.48
31 May 2023	83.04	81.82	84.87
31 August 2023	83.44	82.24	85.24
30 November 2023	83.83	82.65	85.60
29 February 2024	84.21	83.04	85.96
31 May 2024	84.57	83.42	86.30
31 August 2024	84.93	83.79	86.63
30 November 2024	85.27	84.15	86.95
28 February 2025	85.60	84.50	87.26
31 May 2025	85.93	84.84	87.56
31 August 2025	86.24	85.17	87.85
30 November 2025	86.55	85.49	88.14

Source: Federal Reserve Board of Governors

### Middle-left panel (3) Annual Remittances to Treasury - Interest Rate Shocks

\$ Billions

Period	Option 3	Option 3 -100 bp shock	Option 3 +200 bp shock
2010	79.27	79.27	79.27
2011	75.42	75.42	75.42
2012	85.28	85.25	85.36
2013	71.99	71.91	73.78
2014	80.53	80.48	76.19
2015	75.07	77.48	8.54
2016	21.34	45.09	0.00
2017	0.00	6.74	0.00
2018	0.00	0.30	0.00
2019	0.00	7.81	0.00
2020	0.00	9.22	0.00
2021	0.00	28.57	0.00

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2022	37.74	31.72	0.00
2023	49.14	33.80	41.09
2024	52.73	35.86	78.64
2025	56.18	37.61	81.00

Source: Federal Reserve Board of Governors

### Middle-right panel (4) Deferred Assets - Interest Rate Shocks

\$ Billions

Period	Option 3	Option 3 -100 bp shock	Option 3 +200 bp shock
2010	0.00	0.00	0.00
2011	0.00	0.00	0.00
2012	0.00	0.00	0.00
2013	0.00	0.00	0.00
2014	0.00	0.00	0.00
2015	0.00	0.00	5.85
2016	0.00	0.00	45.95
2017	17.57	0.36	101.92
2018	36.47	0.00	150.35
2019	43.20	0.00	181.35
2020	44.14	0.00	148.94
2021	6.99	0.00	98.34
2022	0.00	0.00	33.59
2023	0.00	0.00	0.00
2024	0.00	0.00	0.00
2025	0.00	0.00	0.00

Source: Federal Reserve Board of Governors

### Bottom-left panel (5) SOMA Holdings - No Sales

\$ Trillions

Period	Option 3	Option 3 No Sales
2010	2.16	2.16
2011	2.60	2.60
2012	2.64	2.64
2013	3.69	3.69
2014	3.76	3.76
2015	3.64	3.63
2016	3.13	3.24
2017	2.65	2.90
2018	2.03	2.44
2019	1.67	2.00
2020	1.78	1.80
2021	1.92	1.92
2022	2.06	2.04
2023	2.18	2.17
2024	2.32	2.31
2025	2.47	2.46

Source: Federal Reserve Board of Governors

### Bottom-right panel (6) Annual Remittances to Treasury - No Sales

\$ Billions

Period	Option 3	Option 3 No Sales
2010	79.27	79.27
2011	75.42	75.42
2012	85.28	85.29
2013	71.99	72.03
2014	80.53	80.57
2015	75.07	75.08
2016	21.34	34.34
2017	0.00	2.11
2018	0.00	0.00
2019	0.00	8.64
2020	0.00	21.46
2021	0.00	
2022	0.00	
2023	0.00	
2024	0.00	
2025	0.00	

2021	0.00	27.66
2022	37.74	35.17
2023	49.14	40.37
2024	52.73	44.58
2025	56.18	48.89

Inset: Peak Deferred Asset: Option 3: \$45B (2020); Option 3 No Sales: \$6B (2018).

Source: Federal Reserve Board of Governors

## Appendix 3: Materials used by Mr. Wilcox

### Material for Forecast Summary

David Wilcox  
December 11, 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	December TB	October TB	70% confidence interval, lower bound	70% confidence interval, upper bound
2012:Q1	1.96	1.96	ND	ND
2012:Q2	1.25	1.25	ND	ND
2012:Q3	2.76	2.01	2.76	2.76
2012:Q4	0.86	2.05	-0.52	2.07
2013:Q1	1.74	1.80	-0.59	3.97
2013:Q2	2.50	2.52	0.08	5.12
2013:Q3	2.81	3.04	0.42	5.89
2013:Q4	2.88	3.15	0.32	6.01
2014:Q1	2.91	3.41	0.16	6.06
2014:Q2	3.08	3.48	0.35	6.11
2014:Q3	3.26	3.50	0.29	6.27
2014:Q4	3.42	3.57	0.14	6.16
2015:Q1	3.43	3.71	0.03	6.17
2015:Q2	3.53	3.74	0.02	5.98
2015:Q3	3.65	3.74	0.06	6.16
2015:Q4	3.71	3.74	-0.05	6.08

### Top-right panel Unemployment Rate

Percent

Period	December TB	October TB	70% confidence interval, lower bound	70% confidence interval, upper bound
2012:Q1	8.20	8.20	ND	ND
2012:Q2	8.20	8.20	ND	ND
2012:Q3	8.05	8.05	8.05	8.05
2012:Q4	7.96	8.02	7.87	8.05
2013:Q1	7.93	7.97	7.72	8.13
2013:Q2	7.89	7.95	7.54	8.22
2013:Q3	7.86	7.88	7.34	8.30
2013:Q4	7.81	7.78	7.12	8.37
2014:Q1	7.73	7.64	6.88	8.40
2014:Q2	7.66	7.49	6.66	8.42
2014:Q3	7.54	7.33	6.41	8.40
2014:Q4	7.39	7.16	6.17	8.33
2015:Q1	7.20	6.92	5.94	8.20
2015:Q2	6.97	6.68	5.72	8.08
2015:Q3	6.77	6.44	5.53	7.95
2015:Q4	6.54	6.21	5.36	7.80

Loading [MathJax]/jax/output/HTML-CSS/jax.js ate, and the Natural Rate with EEB (effect of emergency unemployment compensation and state-federal extended benefit programs). The Natural Rate begins in 2012:Q1 at about 6.0, remains at that level until 2014:Q4, and then decreases gradually to about 5.8 by 2015:Q4. The Natural Rate with EEB begins in 2012:Q1 at about 6.2,

decreases gradually to about 6.0 by 2013:Q1, and equals the Natural Rate for the remainder of the period.

### Middle-left panel PCE Prices

Percent change, annual rate

Period	December TB	October TB	70% confidence interval, lower bound	70% confidence interval, upper bound
2012:Q1	2.49	2.49	ND	ND
2012:Q2	0.68	0.68	ND	ND
2012:Q3	1.60	1.70	1.60	1.60
2012:Q4	1.53	2.15	0.71	2.37
2013:Q1	1.12	0.93	-0.31	2.61
2013:Q2	1.37	1.42	0.01	2.89
2013:Q3	1.40	1.39	-0.05	2.93
2013:Q4	1.30	1.32	-0.17	2.82
2014:Q1	1.46	1.39	-0.10	3.02
2014:Q2	1.40	1.37	-0.17	3.02
2014:Q3	1.40	1.38	-0.20	3.01
2014:Q4	1.36	1.41	-0.24	2.99
2015:Q1	1.57	1.47	0.02	3.16
2015:Q2	1.52	1.47	-0.03	3.12
2015:Q3	1.53	1.49	-0.07	3.18
2015:Q4	1.53	1.51	-0.01	3.14

### Middle-right panel PCE Prices Excluding Food and Energy

Percent change, annual rate

Period	December TB	October TB	70% confidence interval, lower bound	70% confidence interval, upper bound
2012:Q1	2.23	2.23	ND	ND
2012:Q2	1.71	1.71	ND	ND
2012:Q3	1.10	1.19	1.10	1.10
2012:Q4	1.24	1.36	0.76	1.82
2013:Q1	1.68	1.59	0.84	2.61
2013:Q2	1.59	1.60	0.67	2.60
2013:Q3	1.59	1.60	0.64	2.64
2013:Q4	1.54	1.60	0.56	2.62
2014:Q1	1.70	1.68	0.66	2.81
2014:Q2	1.64	1.67	0.58	2.80
2014:Q3	1.65	1.67	0.55	2.79
2014:Q4	1.57	1.66	0.43	2.74
2015:Q1	1.79	1.69	0.67	2.98
2015:Q2	1.73	1.69	0.58	2.90
2015:Q3	1.73	1.71	0.57	2.95
2015:Q4	1.71	1.71	0.54	2.93

### Bottom-left panel Measures of Monthly Change in Private Payroll Employment

Thousands

Period	Establishment survey	Model estimate
December 2008	-658	-727.40
January 2009	-839	-780.28
February 2009	-725	-753.89
March 2009	-787	-734.91
April 2009	-802	-655.77
May 2009	-312	-466.16
June 2009	-426	-393.70
July 2009	-296	-294.25
August 2009	-219	-243.37
September 2009	-184	-210.00
October 2009	-232	-197.33
November 2009	-42	-128.99
December 2009	-120	-121.25
January 2010	-40	-55.29
February 2010	-27	28.20
March 2010	141	66.34
April 2010	193	139.83
May 2010	84	120.88
June 2010	92	118.68

July 2010	92	127.12
August 2010	128	140.11
September 2010	115	130.81
October 2010	196	141.38
November 2010	134	129.95
December 2010	140	134.52
January 2011	119	158.96
February 2011	257	182.43
March 2011	261	214.21
April 2011	264	222.91
May 2011	108	166.41
June 2011	102	143.77
July 2011	175	159.16
August 2011	52	147.84
September 2011	216	166.74
October 2011	139	159.47
November 2011	178	172.79
December 2011	234	186.58
January 2012	277	212.79
February 2012	254	218.89
March 2012	147	173.05
April 2012	85	145.12
May 2012	116	136.71
June 2012	63	117.74
July 2012	163	141.73
August 2012	134	136.30
September 2012	122	146.30
October 2012	189	174.59
November 2012	147	163.97

Note: The Kalman filter estimates treat the household survey measure (not shown) and the establishment survey measure as noisy observations of the underlying signal.

## Bottom-right panel Assessment of Economic Policy and Policy Uncertainty\*

Index

Period	Michigan (poor opinion of government's economic policy)	Policy uncertainty index
January 2007	104	68.31
February 2007	112	66.52
March 2007	111	68.66
April 2007	109	63.19
May 2007	112	69.00
June 2007	118	70.14
July 2007	114	69.10
August 2007	120	73.88
September 2007	121	82.99
October 2007	118	92.98
November 2007	118	97.39
December 2007	126	99.97
January 2008	122	118.36
February 2008	131	120.20
March 2008	132	121.21
April 2008	136	107.00
May 2008	149	102.48
June 2008	138	96.85
July 2008	144	99.43
August 2008	145	99.94
September 2008	142	130.84
October 2008	150	157.42
November 2008	149	175.18
December 2008	145	161.52
January 2009	144	157.35
February 2009	129	171.73
March 2009	106	180.36
April 2009	105	167.16
May 2009	92	151.22
June 2009	104	139.37
July 2009	109	137.61
August 2009	116	142.32
September 2009	108	147.28

October 2009	114	151.37
November 2009	111	139.24
December 2009	123	131.13
January 2010	119	132.83
February 2010	128	136.24
March 2010	125	139.52
April 2010	127	135.29
May 2010	124	141.38
June 2010	121	142.42
July 2010	127	156.67
August 2010	119	155.51
September 2010	124	169.40
October 2010	134	163.98
November 2010	131	174.40
December 2010	129	168.71
January 2011	128	161.50
February 2011	115	150.48
March 2011	129	153.58
April 2011	129	158.80
May 2011	122	152.47
June 2011	125	147.16
July 2011	137	160.64
August 2011	152	200.16
September 2011	146	215.66
October 2011	150	203.06
November 2011	147	176.98
December 2011	144	171.98
January 2012	144	178.24
February 2012	136	172.74
March 2012	131	155.38
April 2012	128	140.93
May 2012	126	143.04
June 2012	132	159.62
July 2012	134	175.46
August 2012	134	176.25
September 2012	124	173.82
October 2012	124	170.43
November 2012	122	183.10
December 2012 (approximate projected)	123	ND

\* Three-month moving average of index values. [Return to text](#)

Source: Thomson Reuters/University of Michigan Surveys of Consumers; [www.policyuncertainty.com](http://www.policyuncertainty.com) (Baker, Bloom, and Davis)

## Appendix 4: Materials used by Mr. Kiley

Material for Briefing on  
**Financial Stability**

Michael Kiley  
December 11, 2012

**Class II FOMC - Restricted (FR)**

### Exhibit 1 Leverage & Asset Valuations

Top-left panel  
Private Nonfinancial Sector Credit-to-GDP Ratio

Quarterly  
Ratio

Period	Trend	Ratio
1990:Q1	1.1579	1.2346
1990:Q2	1.1621	1.2323
1990:Q3	1.1664	1.2363
1990:Q4	1.1708	1.2484
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.1751	1.2465
1991:Q2	1.1795	1.2388

1991:Q3	1.1839	1.2244
1991:Q4	1.1883	1.2150
1992:Q1	1.1928	1.2041
1992:Q2	1.1973	1.1883
1992:Q3	1.2018	1.1788
1992:Q4	1.2064	1.1698
1993:Q1	1.2110	1.1691
1993:Q2	1.2157	1.1699
1993:Q3	1.2205	1.1745
1993:Q4	1.2253	1.1667
1994:Q1	1.2301	1.1677
1994:Q2	1.2350	1.1635
1994:Q3	1.2400	1.1674
1994:Q4	1.2451	1.1698
1995:Q1	1.2502	1.1808
1995:Q2	1.2554	1.1945
1995:Q3	1.2607	1.1981
1995:Q4	1.2660	1.1997
1996:Q1	1.2714	1.2055
1996:Q2	1.2769	1.2011
1996:Q3	1.2825	1.2051
1996:Q4	1.2881	1.2003
1997:Q1	1.2939	1.2033
1997:Q2	1.2997	1.2041
1997:Q3	1.3056	1.2078
1997:Q4	1.3115	1.2166
1998:Q1	1.3176	1.2319
1998:Q2	1.3237	1.2489
1998:Q3	1.3299	1.2532
1998:Q4	1.3362	1.2553
1999:Q1	1.3426	1.2716
1999:Q2	1.3490	1.2819
1999:Q3	1.3556	1.2919
1999:Q4	1.3621	1.2884
2000:Q1	1.3688	1.3059
2000:Q2	1.3755	1.3066
2000:Q3	1.3824	1.3231
2000:Q4	1.3892	1.3348
2001:Q1	1.3962	1.3556
2001:Q2	1.4031	1.3666
2001:Q3	1.4102	1.3906
2001:Q4	1.4173	1.4055
2002:Q1	1.4245	1.4145
2002:Q2	1.4317	1.4213
2002:Q3	1.4389	1.4293
2002:Q4	1.4462	1.4489
2003:Q1	1.4536	1.4597
2003:Q2	1.4609	1.4716
2003:Q3	1.4684	1.4654
2003:Q4	1.4758	1.4677
2004:Q1	1.4833	1.4751
2004:Q2	1.4908	1.4847
2004:Q3	1.4983	1.4927
2004:Q4	1.5059	1.5095
2005:Q1	1.5134	1.5133
2005:Q2	1.5210	1.5346
2005:Q3	1.5286	1.5444
2005:Q4	1.5362	1.5640
2006:Q1	1.5438	1.5768
2006:Q2	1.5514	1.5988
2006:Q3	1.5590	1.6190
2006:Q4	1.5667	1.6390
2007:Q1	1.5743	1.6558
2007:Q2	1.5819	1.6711
2007:Q3	1.5895	1.6949
2007:Q4	1.5971	1.7134
2008:Q1	1.6046	1.7364
2008:Q2	1.6122	1.7329
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.6197	1.7427

2008:Q4	1.6273	1.7802
2009:Q1	1.6348	1.7972
2009:Q2	1.6423	1.7947
2009:Q3	1.6498	1.7727
2009:Q4	1.6573	1.7389
2010:Q1	1.6648	1.7135
2010:Q2	1.6722	1.6886
2010:Q3	1.6797	1.6699
2010:Q4	1.6871	1.6536
2011:Q1	1.6945	1.6472
2011:Q2	1.7020	1.6305
2011:Q3	1.7094	1.6176
2011:Q4	1.7168	1.6111
2012:Q1	1.7243	1.5992
2012:Q2	1.7317	1.6001

Note: Calculated using an HP filter. Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): July 1990-March 1991, March 2001-November 2001, and December 2007-June 2009.

Source: FOFA, NIPA, and staff calculations.

## Top-right panel Short Term Debt as Percent of Total Debt

Quarterly  
Percent

Period	All firms	75th Percentile
1999:Q1	18.06	61.57
1999:Q2	17.99	63.63
1999:Q3	18.96	65.65
1999:Q4	18.63	65.85
2000:Q1	19.06	66.99
2000:Q2	19.57	68.67
2000:Q3	20.43	69.39
2000:Q4	19.94	70.57
2001:Q1	18.66	75.01
2001:Q2	18.02	78.70
2001:Q3	18.32	81.27
2001:Q4	18.93	77.52
2002:Q1	17.88	78.03
2002:Q2	16.97	77.94
2002:Q3	16.96	78.44
2002:Q4	16.31	75.42
2003:Q1	14.93	76.60
2003:Q2	13.77	76.38
2003:Q3	13.68	73.77
2003:Q4	12.82	70.52
2004:Q1	12.82	68.68
2004:Q2	13.16	70.63
2004:Q3	12.43	66.09
2004:Q4	12.54	61.76
2005:Q1	13.36	61.31
2005:Q2	13.12	61.71
2005:Q3	13.06	62.31
2005:Q4	13.82	60.45
2006:Q1	13.39	60.17
2006:Q2	13.83	62.50
2006:Q3	14.05	61.78
2006:Q4	13.25	62.30
2007:Q1	12.69	60.48
2007:Q2	12.99	62.47
2007:Q3	12.87	63.32
2007:Q4	12.89	61.45
2008:Q1	12.71	62.67
2008:Q2	12.92	66.67
2008:Q3	14.21	66.99
2008:Q4	13.75	67.18
2009:Q1	12.81	70.62
2009:Q2	11.00	72.34
2009:Q3	10.61	69.39
2009:Q4	9.53	65.44

2010:Q1	10.61	68.63
2010:Q2	10.73	74.51
2010:Q3	10.64	75.56
2010:Q4	10.79	71.67
2011:Q1	11.30	71.55
2011:Q2	10.67	70.79
2011:Q3	11.32	70.38
2011:Q4	11.04	63.17
2012:Q1	11.38	60.94
2012:Q2	11.64	57.01

Note: Ratio of the sum of short-term debt and long-term debt due in one year to total debt.

Source: Compustat.

## Middle-left panel Expected Real Equity Return

Monthly  
Percent

Period	Expected 10-year real equity return
January 1990	7.57
February 1990	8.00
March 1990	8.10
April 1990	7.91
May 1990	7.71
June 1990	7.58
July 1990	7.67
August 1990	8.38
September 1990	9.07
October 1990	9.59
November 1990	8.86
December 1990	8.47
January 1991	9.01
February 1991	7.60
March 1991	7.53
April 1991	7.16
May 1991	7.78
June 1991	7.65
July 1991	7.51
August 1991	7.34
September 1991	7.47
October 1991	7.45
November 1991	7.33
December 1991	7.59
January 1992	7.02
February 1992	7.60
March 1992	7.81
April 1992	7.73
May 1992	7.84
June 1992	8.28
July 1992	8.17
August 1992	8.10
September 1992	8.05
October 1992	8.38
November 1992	7.98
December 1992	7.85
January 1993	7.93
February 1993	8.00
March 1993	7.78
April 1993	7.59
May 1993	7.59
June 1993	7.75
July 1993	7.94
August 1993	7.82
September 1993	7.73
October 1993	7.76
November 1993	7.73
December 1993	7.81
Loading [MathJax]/jax/output/HTML-CSS/jax.js	7.62
February 1994	7.73

March 1994	7.79
April 1994	8.23
May 1994	8.14
June 1994	8.00
July 1994	8.29
August 1994	8.08
September 1994	8.07
October 1994	8.16
November 1994	8.36
December 1994	8.64
January 1995	8.62
February 1995	8.43
March 1995	8.35
April 1995	8.12
May 1995	7.84
June 1995	7.64
July 1995	7.59
August 1995	7.54
September 1995	7.33
October 1995	7.43
November 1995	7.39
December 1995	7.07
January 1996	7.23
February 1996	6.55
March 1996	6.79
April 1996	6.76
May 1996	6.45
June 1996	6.55
July 1996	6.94
August 1996	6.53
September 1996	6.30
October 1996	6.07
November 1996	5.81
December 1996	5.92
January 1997	5.56
February 1997	5.14
March 1997	5.49
April 1997	5.98
May 1997	5.18
June 1997	4.59
July 1997	4.00
August 1997	4.29
September 1997	4.11
October 1997	4.29
November 1997	4.50
December 1997	4.36
January 1998	4.62
February 1998	4.03
March 1998	3.57
April 1998	3.40
May 1998	3.47
June 1998	3.59
July 1998	3.04
August 1998	3.67
September 1998	4.20
October 1998	4.49
November 1998	3.25
December 1998	3.08
January 1999	2.77
February 1999	3.09
March 1999	2.76
April 1999	2.58
May 1999	2.44
June 1999	2.66
July 1999	2.20
August 1999	2.67
September 1999	2.79
October 1999	3.10
Loading [MathJax]/jax/output/HTML-CSS/jax.js	2.31

December 1999	2.28
January 2000	2.19
February 2000	2.81
March 2000	2.83
April 2000	2.57
May 2000	2.64
June 2000	2.35
July 2000	2.20
August 2000	2.24
September 2000	2.26
October 2000	3.24
November 2000	2.85
December 2000	2.89
January 2001	3.08
February 2001	3.26
March 2001	4.22
April 2001	3.51
May 2001	3.11
June 2001	3.33
July 2001	3.40
August 2001	3.56
September 2001	4.90
October 2001	4.02
November 2001	3.54
December 2001	3.53
January 2002	3.96
February 2002	4.19
March 2002	4.15
April 2002	4.45
May 2002	4.84
June 2002	5.58
July 2002	6.62
August 2002	6.39
September 2002	6.83
October 2002	6.75
November 2002	6.52
December 2002	6.41
January 2003	6.01
February 2003	6.69
March 2003	6.58
April 2003	6.57
May 2003	6.05
June 2003	5.44
July 2003	5.62
August 2003	5.78
September 2003	5.47
October 2003	5.44
November 2003	5.60
December 2003	5.37
January 2004	5.01
February 2004	4.96
March 2004	5.28
April 2004	5.37
May 2004	5.90
June 2004	5.63
July 2004	5.89
August 2004	6.09
September 2004	5.88
October 2004	6.00
November 2004	5.58
December 2004	5.47
January 2005	5.74
February 2005	5.59
March 2005	5.89
April 2005	6.00
May 2005	5.99
June 2005	5.90
July 2005	5.87
Loading [MathJax]/jax/output/HTML-CSS/jax.js	6.06

September 2005	6.17
October 2005	6.54
November 2005	6.31
December 2005	5.99
January 2006	6.06
February 2006	6.13
March 2006	6.06
April 2006	6.06
May 2006	6.50
June 2006	6.94
July 2006	6.82
August 2006	6.66
September 2006	6.55
October 2006	6.26
November 2006	6.13
December 2006	6.10
January 2007	6.13
February 2007	6.07
March 2007	6.61
April 2007	6.08
May 2007	5.98
June 2007	6.14
July 2007	6.07
August 2007	7.06
September 2007	6.34
October 2007	6.30
November 2007	6.73
December 2007	6.75
January 2008	7.19
February 2008	7.35
March 2008	7.94
April 2008	7.65
May 2008	7.47
June 2008	8.12
July 2008	8.87
August 2008	8.44
September 2008	9.50
October 2008	11.51
November 2008	12.02
December 2008	10.44
January 2009	11.21
February 2009	11.11
March 2009	10.59
April 2009	9.88
May 2009	9.59
June 2009	9.60
July 2009	9.32
August 2009	8.69
September 2009	8.10
October 2009	8.21
November 2009	8.44
December 2009	8.43
January 2010	8.00
February 2010	8.79
March 2010	8.39
April 2010	8.22
May 2010	9.29
June 2010	9.38
July 2010	9.72
August 2010	9.90
September 2010	9.64
October 2010	9.31
November 2010	9.42
December 2010	9.02
January 2011	8.63
February 2011	8.21
March 2011	8.77
April 2011	8.33
Loading [MathJax]/jax/output/HTML-CSS/jax.js	8.24

June 2011	8.84
July 2011	8.47
August 2011	9.54
September 2011	9.59
October 2011	9.26
November 2011	9.11
December 2011	9.32
January 2012	8.76
February 2012	8.54
March 2012	8.26
April 2012	8.29
May 2012	8.71
June 2012	8.82
July 2012	8.54
August 2012	8.35
September 2012	8.06
October 2012	8.16
November 2012	8.88

\* Staff estimate using a dividend discount model incorporating private sector earnings growth estimates. [Return to table](#)

Note: Also shown in the chart is another curve, expected real yield on 10-year Treasury (off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation). The curve begins at about 7 percent in 1985, generally decreases to about 5 by 1986, then decreases more gradually and fluctuates within a range of about 2-5 percent through 2002. It fluctuates within a range of about 0-3 percent through 2011, and ends at about -1 percent in mid-2012.

## Middle-right panel House Price Overvaluation Measures

Quarterly  
Percent

Period	FHFA	S&P/Case-Shiller National	CoreLogic
1990:Q1	3.76	6.93	8.45
1990:Q2	2.61	5.72	7.31
1990:Q3	1.08	3.33	5.32
1990:Q4	-0.45	1.52	3.56
1991:Q1	-0.70	-0.41	1.68
1991:Q2	-1.57	-0.80	1.66
1991:Q3	-2.23	-1.07	0.49
1991:Q4	-2.47	-1.76	-0.74
1992:Q1	-1.44	-2.07	-1.26
1992:Q2	-2.21	-2.38	-1.86
1992:Q3	-2.34	-3.25	-2.62
1992:Q4	-2.23	-3.96	-3.27
1993:Q1	-3.29	-4.69	-3.68
1993:Q2	-3.62	-5.71	-3.79
1993:Q3	-3.63	-5.60	-3.60
1993:Q4	-3.26	-5.41	-3.16
1994:Q1	-2.77	-4.79	-4.07
1994:Q2	-1.27	-3.76	-4.28
1994:Q3	-1.24	-4.18	-4.82
1994:Q4	-1.02	-4.10	-5.11
1995:Q1	-1.20	-4.56	-5.85
1995:Q2	-2.27	-5.09	-5.80
1995:Q3	-2.15	-5.08	-5.61
1995:Q4	-2.40	-5.34	-5.77
1996:Q1	-2.34	-5.54	-5.84
1996:Q2	-1.48	-5.05	-5.87
1996:Q3	-1.62	-5.14	-6.39
1996:Q4	-2.26	-5.83	-6.62
1997:Q1	-2.30	-5.27	-6.76
1997:Q2	-1.87	-4.93	-6.57
1997:Q3	-2.68	-5.31	-6.18
1997:Q4	-2.32	-4.61	-5.47
1998:Q1	-2.02	-3.92	-4.03
1998:Q2	-1.30	-2.79	-3.72
1998:Q3	-1.28	-2.09	-2.99
1998:Q4	-0.74	-1.41	-2.03
1999:Q1	0.33	0.00	-1.57
1999:Q2	1.23	1.13	-0.35
1999:Q3	2.58	2.92	0.75
1999:Q4	3.14	4.11	1.85

2000:Q1	4.13	5.60	3.28
2000:Q2	5.13	7.51	5.13
2000:Q3	5.30	8.43	6.23
2000:Q4	5.36	9.21	7.15
2001:Q1	5.48	9.66	8.62
2001:Q2	6.07	10.67	8.94
2001:Q3	6.24	11.56	9.68
2001:Q4	6.21	11.46	10.16
2002:Q1	6.99	12.70	11.00
2002:Q2	7.94	14.50	12.85
2002:Q3	8.56	16.26	14.59
2002:Q4	9.46	17.87	15.40
2003:Q1	10.18	19.00	16.71
2003:Q2	10.82	20.16	18.08
2003:Q3	12.61	22.60	20.31
2003:Q4	14.07	25.26	22.62
2004:Q1	15.25	27.75	26.17
2004:Q2	17.57	31.02	29.38
2004:Q3	18.98	33.29	31.68
2004:Q4	20.51	35.95	34.29
2005:Q1	22.12	39.50	39.11
2005:Q2	23.84	42.17	41.67
2005:Q3	25.63	44.47	43.92
2005:Q4	27.29	46.71	45.12
2006:Q1	28.00	47.83	46.71
2006:Q2	28.12	46.56	44.37
2006:Q3	27.13	43.62	42.40
2006:Q4	26.08	42.30	41.36
2007:Q1	25.46	41.84	38.68
2007:Q2	24.54	38.39	34.96
2007:Q3	22.56	34.65	31.03
2007:Q4	19.42	29.44	26.55
2008:Q1	15.80	23.69	21.51
2008:Q2	12.66	18.28	16.14
2008:Q3	9.60	12.48	10.84
2008:Q4	5.15	5.40	4.28
2009:Q1	3.38	-0.42	-1.19
2009:Q2	1.54	-1.35	-1.33
2009:Q3	1.31	0.53	-0.63
2009:Q4	1.07	1.55	-0.19
2010:Q1	0.01	1.85	0.16
2010:Q2	-0.65	2.02	-0.50
2010:Q3	-2.92	-1.36	-3.39
2010:Q4	-4.45	-2.88	-5.10
2011:Q1	-7.15	-4.17	-7.03
2011:Q2	-8.51	-5.36	-7.93
2011:Q3	-9.14	-7.00	-8.94
2011:Q4	-10.28	-9.44	-11.23
2012:Q1	-10.25	-8.71	-9.29
2012:Q2	-9.02	-7.51	-7.85
2012:Q3	-8.61	-2.62	-7.15

Note: Overvaluation measured as deviation from long-run relationship between house prices and rents.

## Bottom-left panel Ten-Year Nominal Term Premiums

Daily

Date	Percent
2 January 1997	1.539
3 January 1997	1.526
6 January 1997	1.547
7 January 1997	1.567
8 January 1997	1.585
9 January 1997	1.537
10 January 1997	1.600
13 January 1997	1.598
14 January 1997	1.542
15 January 1997	1.541
16 January 1997	1.570

17 January 1997	1.563
20 January 1997	ND
21 January 1997	1.531
22 January 1997	1.558
23 January 1997	1.575
24 January 1997	1.604
27 January 1997	1.632
28 January 1997	1.620
29 January 1997	1.614
30 January 1997	1.602
31 January 1997	1.539
3 February 1997	1.503
4 February 1997	1.487
5 February 1997	1.505
6 February 1997	1.509
7 February 1997	1.478
10 February 1997	1.468
11 February 1997	1.469
12 February 1997	ND
13 February 1997	1.425
14 February 1997	1.392
17 February 1997	ND
18 February 1997	1.403
19 February 1997	1.415
20 February 1997	1.471
21 February 1997	1.456
24 February 1997	1.475
25 February 1997	1.474
26 February 1997	1.573
27 February 1997	1.586
28 February 1997	1.574
3 March 1997	1.585
4 March 1997	1.605
5 March 1997	1.598
6 March 1997	1.617
7 March 1997	1.582
10 March 1997	1.581
11 March 1997	1.593
12 March 1997	1.612
13 March 1997	1.690
14 March 1997	1.681
17 March 1997	1.675
18 March 1997	1.677
19 March 1997	1.685
20 March 1997	1.672
21 March 1997	1.661
24 March 1997	1.643
25 March 1997	1.653
26 March 1997	1.694
27 March 1997	1.770
28 March 1997	ND
31 March 1997	1.796
1 April 1997	1.780
2 April 1997	1.769
3 April 1997	1.766
4 April 1997	1.802
7 April 1997	1.764
8 April 1997	1.778
9 April 1997	1.777
10 April 1997	1.774
11 April 1997	1.811
14 April 1997	1.808
15 April 1997	1.748
16 April 1997	1.756
17 April 1997	1.727
18 April 1997	1.719
21 April 1997	1.740
22 April 1997	1.719
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	1.756

24 April 1997	1.782
25 April 1997	1.791
28 April 1997	1.773
29 April 1997	1.697
30 April 1997	1.654
1 May 1997	1.628
2 May 1997	1.618
5 May 1997	1.610
6 May 1997	1.599
7 May 1997	1.663
8 May 1997	1.640
9 May 1997	1.619
12 May 1997	1.608
13 May 1997	1.647
14 May 1997	1.619
15 May 1997	1.607
16 May 1997	1.621
19 May 1997	1.619
20 May 1997	1.629
21 May 1997	1.666
22 May 1997	1.688
23 May 1997	1.642
26 May 1997	ND
27 May 1997	1.716
28 May 1997	1.711
29 May 1997	1.687
30 May 1997	1.637
2 June 1997	1.625
3 June 1997	1.608
4 June 1997	1.603
5 June 1997	1.606
6 June 1997	1.533
9 June 1997	1.564
10 June 1997	1.582
11 June 1997	1.573
12 June 1997	1.539
13 June 1997	1.504
16 June 1997	1.486
17 June 1997	1.502
18 June 1997	1.489
19 June 1997	1.490
20 June 1997	1.468
23 June 1997	1.490
24 June 1997	1.499
25 June 1997	1.536
26 June 1997	1.576
27 June 1997	1.572
30 June 1997	1.580
1 July 1997	1.528
2 July 1997	1.504
3 July 1997	1.432
4 July 1997	ND
7 July 1997	1.403
8 July 1997	1.408
9 July 1997	1.384
10 July 1997	1.388
11 July 1997	1.362
14 July 1997	1.371
15 July 1997	1.375
16 July 1997	1.335
17 July 1997	1.334
18 July 1997	1.369
21 July 1997	1.370
22 July 1997	1.296
23 July 1997	1.288
24 July 1997	1.293
25 July 1997	1.309
28 July 1997	1.297
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.245

30 July 1997	1.227
31 July 1997	1.194
1 August 1997	1.311
4 August 1997	1.328
5 August 1997	1.326
6 August 1997	1.316
7 August 1997	1.319
8 August 1997	1.432
11 August 1997	1.422
12 August 1997	1.452
13 August 1997	1.443
14 August 1997	1.386
15 August 1997	1.396
18 August 1997	1.362
19 August 1997	1.365
20 August 1997	1.375
21 August 1997	1.412
22 August 1997	1.471
25 August 1997	1.477
26 August 1997	1.464
27 August 1997	1.466
28 August 1997	1.410
29 August 1997	1.434
1 September 1997	ND
2 September 1997	1.417
3 September 1997	1.434
4 September 1997	1.438
5 September 1997	1.468
8 September 1997	1.440
9 September 1997	1.451
10 September 1997	1.473
11 September 1997	1.489
12 September 1997	1.423
15 September 1997	1.414
16 September 1997	1.290
17 September 1997	1.286
18 September 1997	1.301
19 September 1997	1.289
22 September 1997	1.276
23 September 1997	1.306
24 September 1997	1.283
25 September 1997	1.351
26 September 1997	1.335
29 September 1997	1.335
30 September 1997	1.334
1 October 1997	1.271
2 October 1997	1.256
3 October 1997	1.259
6 October 1997	1.224
7 October 1997	1.198
8 October 1997	1.291
9 October 1997	1.289
10 October 1997	1.331
13 October 1997	ND
14 October 1997	1.272
15 October 1997	1.293
16 October 1997	1.294
17 October 1997	1.340
20 October 1997	1.325
21 October 1997	1.307
22 October 1997	1.290
23 October 1997	1.237
24 October 1997	1.212
27 October 1997	1.173
28 October 1997	1.199
29 October 1997	1.156
30 October 1997	1.107
31 October 1997	1.097
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.129

4 November 1997	1.162
5 November 1997	1.164
6 November 1997	1.129
7 November 1997	1.128
10 November 1997	1.121
11 November 1997	ND
12 November 1997	1.117
13 November 1997	1.098
14 November 1997	1.096
17 November 1997	1.075
18 November 1997	1.069
19 November 1997	1.042
20 November 1997	1.058
21 November 1997	1.053
24 November 1997	1.071
25 November 1997	1.057
26 November 1997	1.058
27 November 1997	ND
28 November 1997	1.050
1 December 1997	1.052
2 December 1997	1.052
3 December 1997	1.040
4 December 1997	1.053
5 December 1997	1.089
8 December 1997	1.108
9 December 1997	1.109
10 December 1997	1.094
11 December 1997	1.048
12 December 1997	0.992
15 December 1997	1.017
16 December 1997	1.004
17 December 1997	1.019
18 December 1997	0.974
19 December 1997	0.949
22 December 1997	0.919
23 December 1997	0.929
24 December 1997	0.952
25 December 1997	ND
26 December 1997	0.950
29 December 1997	0.957
30 December 1997	0.989
31 December 1997	0.967
1 January 1998	ND
2 January 1998	0.908
5 January 1998	0.821
6 January 1998	0.820
7 January 1998	0.864
8 January 1998	0.832
9 January 1998	0.811
12 January 1998	0.804
13 January 1998	0.813
14 January 1998	0.843
15 January 1998	0.859
16 January 1998	0.884
19 January 1998	ND
20 January 1998	0.899
21 January 1998	0.873
22 January 1998	0.893
23 January 1998	0.981
26 January 1998	0.934
27 January 1998	0.963
28 January 1998	0.959
29 January 1998	0.875
30 January 1998	0.855
2 February 1998	0.882
3 February 1998	0.878
4 February 1998	0.887
5 February 1998	0.944
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.927

9 February 1998	0.951
10 February 1998	0.937
11 February 1998	0.889
12 February 1998	0.896
13 February 1998	0.869
16 February 1998	ND
17 February 1998	0.836
18 February 1998	0.858
19 February 1998	0.871
20 February 1998	0.886
23 February 1998	0.915
24 February 1998	1.005
25 February 1998	0.937
26 February 1998	0.955
27 February 1998	0.942
2 March 1998	1.012
3 March 1998	1.060
4 March 1998	1.051
5 March 1998	1.088
6 March 1998	1.047
9 March 1998	1.011
10 March 1998	1.012
11 March 1998	0.983
12 March 1998	0.937
13 March 1998	0.948
16 March 1998	0.928
17 March 1998	0.928
18 March 1998	0.937
19 March 1998	0.937
20 March 1998	0.931
23 March 1998	0.931
24 March 1998	0.942
25 March 1998	0.985
26 March 1998	1.012
27 March 1998	1.015
30 March 1998	1.039
31 March 1998	0.998
1 April 1998	0.962
2 April 1998	0.927
3 April 1998	0.881
6 April 1998	0.898
7 April 1998	0.915
8 April 1998	0.946
9 April 1998	0.940
10 April 1998	ND
13 April 1998	0.972
14 April 1998	0.943
15 April 1998	0.933
16 April 1998	0.932
17 April 1998	0.940
20 April 1998	0.976
21 April 1998	1.001
22 April 1998	1.005
23 April 1998	1.009
24 April 1998	0.990
27 April 1998	1.079
28 April 1998	1.081
29 April 1998	1.090
30 April 1998	1.018
1 May 1998	0.997
4 May 1998	0.990
5 May 1998	1.008
6 May 1998	0.982
7 May 1998	0.988
8 May 1998	1.002
11 May 1998	1.048
12 May 1998	0.988
13 May 1998	0.961
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.982

15 May 1998	0.983
18 May 1998	0.954
19 May 1998	0.967
20 May 1998	0.932
21 May 1998	0.953
22 May 1998	0.944
25 May 1998	ND
26 May 1998	0.909
27 May 1998	0.908
28 May 1998	0.914
29 May 1998	0.937
1 June 1998	0.925
2 June 1998	0.938
3 June 1998	0.946
4 June 1998	0.950
5 June 1998	0.941
8 June 1998	0.936
9 June 1998	0.931
10 June 1998	0.881
11 June 1998	0.840
12 June 1998	0.827
15 June 1998	0.804
16 June 1998	0.846
17 June 1998	0.909
18 June 1998	0.881
19 June 1998	0.858
22 June 1998	0.864
23 June 1998	0.832
24 June 1998	0.863
25 June 1998	0.865
26 June 1998	0.850
29 June 1998	0.882
30 June 1998	0.856
1 July 1998	0.858
2 July 1998	0.836
3 July 1998	ND
6 July 1998	0.823
7 July 1998	0.829
8 July 1998	0.837
9 July 1998	0.818
10 July 1998	0.824
13 July 1998	0.857
14 July 1998	0.872
15 July 1998	0.873
16 July 1998	0.883
17 July 1998	0.899
20 July 1998	0.865
21 July 1998	0.841
22 July 1998	0.849
23 July 1998	0.843
24 July 1998	0.851
27 July 1998	0.867
28 July 1998	0.896
29 July 1998	0.907
30 July 1998	0.888
31 July 1998	0.888
3 August 1998	0.848
4 August 1998	0.837
5 August 1998	0.841
6 August 1998	0.847
7 August 1998	0.816
10 August 1998	0.831
11 August 1998	0.809
12 August 1998	0.816
13 August 1998	0.831
14 August 1998	0.811
17 August 1998	0.801
18 August 1998	0.798
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.806

20 August 1998	0.780
21 August 1998	0.738
24 August 1998	0.715
25 August 1998	0.677
26 August 1998	0.701
27 August 1998	0.634
28 August 1998	0.634
31 August 1998	0.604
1 September 1998	0.626
2 September 1998	0.644
3 September 1998	0.603
4 September 1998	0.585
7 September 1998	ND
8 September 1998	0.605
9 September 1998	0.546
10 September 1998	0.451
11 September 1998	0.478
14 September 1998	0.478
15 September 1998	0.502
16 September 1998	0.483
17 September 1998	0.438
18 September 1998	0.393
21 September 1998	0.379
22 September 1998	0.417
23 September 1998	0.421
24 September 1998	0.424
25 September 1998	0.411
28 September 1998	0.408
29 September 1998	0.388
30 September 1998	0.304
1 October 1998	0.247
2 October 1998	0.240
5 October 1998	0.162
6 October 1998	0.227
7 October 1998	0.331
8 October 1998	0.545
9 October 1998	0.714
12 October 1998	ND
13 October 1998	0.677
14 October 1998	0.552
15 October 1998	0.555
16 October 1998	0.516
19 October 1998	0.506
20 October 1998	0.558
21 October 1998	0.567
22 October 1998	0.577
23 October 1998	0.633
26 October 1998	0.589
27 October 1998	0.522
28 October 1998	0.465
29 October 1998	0.403
30 October 1998	0.455
2 November 1998	0.527
3 November 1998	0.515
4 November 1998	0.582
5 November 1998	0.570
6 November 1998	0.651
9 November 1998	0.599
10 November 1998	0.579
11 November 1998	ND
12 November 1998	0.565
13 November 1998	0.595
16 November 1998	0.616
17 November 1998	0.645
18 November 1998	0.619
19 November 1998	0.646
20 November 1998	0.609
23 November 1998	0.622
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.615

25 November 1998	0.610
26 November 1998	ND
27 November 1998	0.592
30 November 1998	0.511
1 December 1998	0.478
2 December 1998	0.413
3 December 1998	0.413
4 December 1998	0.459
7 December 1998	0.515
8 December 1998	0.460
9 December 1998	0.424
10 December 1998	0.393
11 December 1998	0.450
14 December 1998	0.425
15 December 1998	0.465
16 December 1998	0.435
17 December 1998	0.443
18 December 1998	0.447
21 December 1998	0.494
22 December 1998	0.535
23 December 1998	0.609
24 December 1998	0.663
25 December 1998	ND
28 December 1998	0.603
29 December 1998	0.556
30 December 1998	0.550
31 December 1998	0.566
1 January 1999	ND
4 January 1999	0.550
5 January 1999	0.584
6 January 1999	0.558
7 January 1999	0.616
8 January 1999	0.679
11 January 1999	0.703
12 January 1999	0.666
13 January 1999	0.627
14 January 1999	0.591
15 January 1999	0.602
18 January 1999	ND
19 January 1999	0.630
20 January 1999	0.652
21 January 1999	0.611
22 January 1999	0.562
25 January 1999	0.571
26 January 1999	0.580
27 January 1999	0.565
28 January 1999	0.545
29 January 1999	0.534
1 February 1999	0.606
2 February 1999	0.632
3 February 1999	0.673
4 February 1999	0.730
5 February 1999	0.756
8 February 1999	0.741
9 February 1999	0.719
10 February 1999	0.731
11 February 1999	0.747
12 February 1999	0.855
15 February 1999	ND
16 February 1999	0.824
17 February 1999	0.784
18 February 1999	0.833
19 February 1999	0.844
22 February 1999	0.819
23 February 1999	0.861
24 February 1999	0.906
25 February 1999	0.995
26 February 1999	0.961
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.018

2 March 1999	0.977
3 March 1999	1.017
4 March 1999	1.042
5 March 1999	1.004
8 March 1999	0.978
9 March 1999	0.930
10 March 1999	0.950
11 March 1999	0.950
12 March 1999	0.924
15 March 1999	0.905
16 March 1999	0.871
17 March 1999	0.896
18 March 1999	0.887
19 March 1999	0.933
22 March 1999	0.964
23 March 1999	0.985
24 March 1999	0.956
25 March 1999	0.986
26 March 1999	0.999
29 March 1999	1.040
30 March 1999	0.993
31 March 1999	1.015
1 April 1999	1.039
2 April 1999	ND
5 April 1999	0.966
6 April 1999	0.907
7 April 1999	0.911
8 April 1999	0.833
9 April 1999	0.850
12 April 1999	0.832
13 April 1999	0.880
14 April 1999	0.896
15 April 1999	0.924
16 April 1999	0.946
19 April 1999	0.909
20 April 1999	0.896
21 April 1999	0.901
22 April 1999	0.966
23 April 1999	0.955
26 April 1999	0.936
27 April 1999	0.930
28 April 1999	0.938
29 April 1999	0.885
30 April 1999	0.994
3 May 1999	1.006
4 May 1999	1.038
5 May 1999	1.021
6 May 1999	1.096
7 May 1999	1.133
10 May 1999	1.116
11 May 1999	1.149
12 May 1999	1.132
13 May 1999	1.051
14 May 1999	1.178
17 May 1999	1.209
18 May 1999	1.221
19 May 1999	1.184
20 May 1999	1.200
21 May 1999	1.155
24 May 1999	1.138
25 May 1999	1.137
26 May 1999	1.178
27 May 1999	1.216
28 May 1999	ND
31 May 1999	ND
1 June 1999	1.316
2 June 1999	1.306
3 June 1999	1.299
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.306

7 June 1999	1.297
8 June 1999	1.306
9 June 1999	1.325
10 June 1999	1.347
11 June 1999	1.424
14 June 1999	1.387
15 June 1999	1.382
16 June 1999	1.369
17 June 1999	1.270
18 June 1999	1.292
21 June 1999	1.329
22 June 1999	1.355
23 June 1999	1.402
24 June 1999	1.428
25 June 1999	1.404
28 June 1999	1.354
29 June 1999	1.321
30 June 1999	1.256
1 July 1999	1.283
2 July 1999	1.283
5 July 1999	ND
6 July 1999	1.338
7 July 1999	1.393
8 July 1999	1.351
9 July 1999	1.355
12 July 1999	ND
13 July 1999	1.269
14 July 1999	1.293
15 July 1999	1.286
16 July 1999	1.261
19 July 1999	1.250
20 July 1999	1.252
21 July 1999	ND
22 July 1999	1.344
23 July 1999	1.379
26 July 1999	1.383
27 July 1999	1.347
28 July 1999	1.337
29 July 1999	1.393
30 July 1999	1.410
2 August 1999	1.399
3 August 1999	1.409
4 August 1999	1.408
5 August 1999	1.361
6 August 1999	1.457
9 August 1999	1.512
10 August 1999	1.536
11 August 1999	1.508
12 August 1999	1.527
13 August 1999	1.431
16 August 1999	1.414
17 August 1999	1.338
18 August 1999	1.338
19 August 1999	1.361
20 August 1999	1.350
23 August 1999	1.332
24 August 1999	1.299
25 August 1999	1.218
26 August 1999	1.227
27 August 1999	1.288
30 August 1999	1.357
31 August 1999	1.375
1 September 1999	1.380
2 September 1999	1.415
3 September 1999	1.333
6 September 1999	ND
7 September 1999	1.377
8 September 1999	1.361
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.397

10 September 1999	1.345
13 September 1999	1.359
14 September 1999	1.401
15 September 1999	1.388
16 September 1999	1.358
17 September 1999	1.329
20 September 1999	1.361
21 September 1999	1.380
22 September 1999	1.371
23 September 1999	1.318
24 September 1999	1.254
27 September 1999	1.305
28 September 1999	1.373
29 September 1999	1.433
30 September 1999	1.378
1 October 1999	1.446
4 October 1999	1.406
5 October 1999	1.455
6 October 1999	1.461
7 October 1999	1.465
8 October 1999	1.463
11 October 1999	ND
12 October 1999	1.479
13 October 1999	1.515
14 October 1999	1.553
15 October 1999	1.500
18 October 1999	1.507
19 October 1999	1.534
20 October 1999	1.530
21 October 1999	1.547
22 October 1999	1.539
25 October 1999	1.539
26 October 1999	1.542
27 October 1999	1.497
28 October 1999	1.432
29 October 1999	1.347
1 November 1999	1.369
2 November 1999	1.340
3 November 1999	1.323
4 November 1999	1.282
5 November 1999	1.244
8 November 1999	1.249
9 November 1999	1.251
10 November 1999	1.263
11 November 1999	ND
12 November 1999	1.215
15 November 1999	1.208
16 November 1999	1.217
17 November 1999	1.283
18 November 1999	1.310
19 November 1999	1.312
22 November 1999	1.327
23 November 1999	1.317
24 November 1999	1.304
25 November 1999	ND
26 November 1999	1.321
29 November 1999	1.368
30 November 1999	1.345
1 December 1999	1.372
2 December 1999	1.388
3 December 1999	1.351
6 December 1999	1.324
7 December 1999	1.287
8 December 1999	1.312
9 December 1999	1.300
10 December 1999	1.233
13 December 1999	1.231
14 December 1999	1.304
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.333

16 December 1999	1.370
17 December 1999	1.376
20 December 1999	1.415
21 December 1999	1.427
22 December 1999	1.440
23 December 1999	1.474
24 December 1999	ND
27 December 1999	1.472
28 December 1999	1.503
29 December 1999	1.490
30 December 1999	1.488
31 December 1999	1.518
3 January 2000	1.566
4 January 2000	1.520
5 January 2000	1.605
6 January 2000	1.574
7 January 2000	1.547
10 January 2000	1.578
11 January 2000	1.641
12 January 2000	1.673
13 January 2000	1.603
14 January 2000	1.629
17 January 2000	ND
18 January 2000	1.671
19 January 2000	1.636
20 January 2000	1.659
21 January 2000	1.652
24 January 2000	1.575
25 January 2000	1.596
26 January 2000	1.584
27 January 2000	1.571
28 January 2000	1.534
31 January 2000	1.546
1 February 2000	1.527
2 February 2000	1.520
3 February 2000	1.460
4 February 2000	1.479
7 February 2000	1.565
8 February 2000	1.505
9 February 2000	1.556
10 February 2000	1.623
11 February 2000	1.587
14 February 2000	1.517
15 February 2000	1.533
16 February 2000	1.549
17 February 2000	1.553
18 February 2000	1.484
21 February 2000	ND
22 February 2000	1.402
23 February 2000	1.450
24 February 2000	1.410
25 February 2000	1.421
28 February 2000	1.427
29 February 2000	1.445
1 March 2000	1.422
2 March 2000	1.419
3 March 2000	1.413
6 March 2000	1.426
7 March 2000	1.421
8 March 2000	1.409
9 March 2000	1.386
10 March 2000	1.406
13 March 2000	1.385
14 March 2000	1.342
15 March 2000	1.311
16 March 2000	1.287
17 March 2000	1.237
20 March 2000	1.232
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.197

22 March 2000	1.207
23 March 2000	1.168
24 March 2000	1.238
27 March 2000	1.237
28 March 2000	1.214
29 March 2000	1.212
30 March 2000	1.128
31 March 2000	1.100
3 April 2000	1.088
4 April 2000	1.025
5 April 2000	1.027
6 April 2000	1.042
7 April 2000	0.998
10 April 2000	0.978
11 April 2000	1.054
12 April 2000	1.130
13 April 2000	1.089
14 April 2000	1.049
17 April 2000	1.179
18 April 2000	1.193
19 April 2000	1.130
20 April 2000	1.118
21 April 2000	ND
24 April 2000	1.128
25 April 2000	1.222
26 April 2000	1.222
27 April 2000	1.269
28 April 2000	1.248
1 May 2000	1.270
2 May 2000	1.294
3 May 2000	1.354
4 May 2000	1.382
5 May 2000	1.394
8 May 2000	1.424
9 May 2000	1.386
10 May 2000	1.323
11 May 2000	1.293
12 May 2000	1.357
15 May 2000	1.322
16 May 2000	1.296
17 May 2000	1.345
18 May 2000	1.425
19 May 2000	1.398
22 May 2000	1.344
23 May 2000	1.338
24 May 2000	1.366
25 May 2000	1.314
26 May 2000	1.255
29 May 2000	ND
30 May 2000	1.290
31 May 2000	1.230
1 June 2000	1.183
2 June 2000	1.150
5 June 2000	1.126
6 June 2000	1.132
7 June 2000	1.112
8 June 2000	1.110
9 June 2000	1.113
12 June 2000	1.091
13 June 2000	1.100
14 June 2000	1.089
15 June 2000	1.081
16 June 2000	1.048
19 June 2000	1.059
20 June 2000	1.073
21 June 2000	1.133
22 June 2000	1.140
23 June 2000	1.180
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.121

27 June 2000	1.106
28 June 2000	1.124
29 June 2000	1.071
30 June 2000	1.051
3 July 2000	1.033
4 July 2000	ND
5 July 2000	1.017
6 July 2000	1.071
7 July 2000	1.016
10 July 2000	1.024
11 July 2000	1.036
12 July 2000	1.054
13 July 2000	0.996
14 July 2000	1.056
17 July 2000	1.103
18 July 2000	1.092
19 July 2000	1.095
20 July 2000	0.992
21 July 2000	0.983
24 July 2000	0.997
25 July 2000	0.993
26 July 2000	0.987
27 July 2000	0.961
28 July 2000	0.981
31 July 2000	0.970
1 August 2000	0.931
2 August 2000	0.916
3 August 2000	0.897
4 August 2000	0.885
7 August 2000	0.920
8 August 2000	0.885
9 August 2000	0.875
10 August 2000	0.843
11 August 2000	0.874
14 August 2000	0.860
15 August 2000	0.876
16 August 2000	0.894
17 August 2000	0.885
18 August 2000	0.858
21 August 2000	0.862
22 August 2000	0.862
23 August 2000	0.815
24 August 2000	0.807
25 August 2000	0.803
28 August 2000	0.824
29 August 2000	0.861
30 August 2000	0.858
31 August 2000	0.805
1 September 2000	0.775
4 September 2000	ND
5 September 2000	0.783
6 September 2000	0.824
7 September 2000	0.851
8 September 2000	0.842
11 September 2000	0.870
12 September 2000	0.884
13 September 2000	0.854
14 September 2000	0.887
15 September 2000	0.901
18 September 2000	0.921
19 September 2000	0.901
20 September 2000	0.922
21 September 2000	0.908
22 September 2000	0.876
25 September 2000	0.866
26 September 2000	0.848
27 September 2000	0.850
28 September 2000	0.829
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.826

2 October 2000	0.833
3 October 2000	0.852
4 October 2000	0.858
5 October 2000	0.839
6 October 2000	0.815
9 October 2000	ND
10 October 2000	0.798
11 October 2000	0.778
12 October 2000	0.761
13 October 2000	0.766
16 October 2000	0.756
17 October 2000	0.718
18 October 2000	0.703
19 October 2000	0.690
20 October 2000	0.668
23 October 2000	0.625
24 October 2000	0.652
25 October 2000	0.683
26 October 2000	0.681
27 October 2000	0.691
30 October 2000	0.705
31 October 2000	0.744
1 November 2000	0.730
2 November 2000	0.723
3 November 2000	0.786
6 November 2000	0.804
7 November 2000	0.806
8 November 2000	0.800
9 November 2000	0.765
10 November 2000	0.769
13 November 2000	0.742
14 November 2000	0.719
15 November 2000	0.696
16 November 2000	0.679
17 November 2000	0.699
20 November 2000	0.686
21 November 2000	0.655
22 November 2000	0.617
23 November 2000	ND
24 November 2000	0.618
27 November 2000	0.636
28 November 2000	0.604
29 November 2000	0.589
30 November 2000	0.545
1 December 2000	0.580
4 December 2000	0.603
5 December 2000	0.561
6 December 2000	0.498
7 December 2000	0.492
8 December 2000	0.523
11 December 2000	0.524
12 December 2000	0.516
13 December 2000	0.469
14 December 2000	0.426
15 December 2000	0.413
18 December 2000	0.405
19 December 2000	0.421
20 December 2000	0.398
21 December 2000	0.403
22 December 2000	0.407
25 December 2000	ND
26 December 2000	0.420
27 December 2000	0.460
28 December 2000	0.467
29 December 2000	0.474
1 January 2001	ND
2 January 2001	0.378
3 January 2001	0.585
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.576

5 January 2001	0.557
8 January 2001	0.562
9 January 2001	0.568
10 January 2001	0.621
11 January 2001	0.652
12 January 2001	0.702
15 January 2001	ND
16 January 2001	0.681
17 January 2001	0.634
18 January 2001	0.608
19 January 2001	0.678
22 January 2001	0.714
23 January 2001	0.751
24 January 2001	0.773
25 January 2001	0.749
26 January 2001	0.769
29 January 2001	0.799
30 January 2001	0.747
31 January 2001	0.746
1 February 2001	0.685
2 February 2001	0.709
5 February 2001	0.702
6 February 2001	0.727
7 February 2001	0.721
8 February 2001	0.726
9 February 2001	0.675
12 February 2001	0.703
13 February 2001	0.700
14 February 2001	0.729
15 February 2001	0.774
16 February 2001	0.747
19 February 2001	ND
20 February 2001	0.743
21 February 2001	0.773
22 February 2001	0.798
23 February 2001	0.787
26 February 2001	0.769
27 February 2001	0.694
28 February 2001	0.669
1 March 2001	0.628
2 March 2001	0.700
5 March 2001	0.714
6 March 2001	0.733
7 March 2001	0.692
8 March 2001	0.681
9 March 2001	0.714
12 March 2001	0.704
13 March 2001	0.732
14 March 2001	0.688
15 March 2001	0.692
16 March 2001	0.667
19 March 2001	0.692
20 March 2001	0.682
21 March 2001	0.679
22 March 2001	0.652
23 March 2001	0.697
26 March 2001	0.752
27 March 2001	0.850
28 March 2001	0.862
29 March 2001	0.884
30 March 2001	0.852
2 April 2001	0.864
3 April 2001	0.857
4 April 2001	0.864
5 April 2001	0.886
6 April 2001	0.838
9 April 2001	0.865
10 April 2001	0.946
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.964

12 April 2001	0.989
13 April 2001	ND
16 April 2001	1.047
17 April 2001	1.023
18 April 2001	1.015
19 April 2001	1.127
20 April 2001	1.159
23 April 2001	1.116
24 April 2001	1.127
25 April 2001	1.152
26 April 2001	1.100
27 April 2001	1.188
30 April 2001	1.183
1 May 2001	1.160
2 May 2001	1.149
3 May 2001	1.097
4 May 2001	1.111
7 May 2001	1.128
8 May 2001	1.150
9 May 2001	1.124
10 May 2001	1.201
11 May 2001	1.323
14 May 2001	1.307
15 May 2001	1.356
16 May 2001	1.356
17 May 2001	1.330
18 May 2001	1.309
21 May 2001	1.303
22 May 2001	1.316
23 May 2001	1.329
24 May 2001	1.392
25 May 2001	1.401
28 May 2001	ND
29 May 2001	1.417
30 May 2001	1.415
31 May 2001	1.355
1 June 2001	1.319
4 June 2001	1.303
5 June 2001	1.270
6 June 2001	1.264
7 June 2001	1.305
8 June 2001	1.320
11 June 2001	1.288
12 June 2001	1.257
13 June 2001	1.262
14 June 2001	1.241
15 June 2001	1.254
18 June 2001	1.261
19 June 2001	1.252
20 June 2001	1.245
21 June 2001	1.230
22 June 2001	1.192
25 June 2001	1.200
26 June 2001	1.248
27 June 2001	1.245
28 June 2001	1.299
29 June 2001	1.351
2 July 2001	1.304
3 July 2001	1.324
4 July 2001	ND
5 July 2001	1.360
6 July 2001	1.346
9 July 2001	1.310
10 July 2001	1.283
11 July 2001	1.284
12 July 2001	1.256
13 July 2001	1.246
16 July 2001	1.209
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.206

18 July 2001	1.156
19 July 2001	1.160
20 July 2001	1.174
23 July 2001	1.154
24 July 2001	1.139
25 July 2001	1.188
26 July 2001	1.183
27 July 2001	1.146
30 July 2001	1.130
31 July 2001	1.108
1 August 2001	1.135
2 August 2001	1.175
3 August 2001	1.197
6 August 2001	1.198
7 August 2001	1.199
8 August 2001	1.135
9 August 2001	1.173
10 August 2001	1.150
13 August 2001	1.139
14 August 2001	1.131
15 August 2001	1.141
16 August 2001	1.121
17 August 2001	1.061
20 August 2001	1.081
21 August 2001	1.074
22 August 2001	1.076
23 August 2001	1.067
24 August 2001	1.092
27 August 2001	1.099
28 August 2001	1.045
29 August 2001	1.003
30 August 2001	1.033
31 August 2001	1.047
3 September 2001	ND
4 September 2001	1.128
5 September 2001	1.128
6 September 2001	1.074
7 September 2001	1.059
10 September 2001	1.096
11 September 2001	ND
12 September 2001	ND
13 September 2001	1.043
14 September 2001	1.046
17 September 2001	1.062
18 September 2001	1.161
19 September 2001	1.179
20 September 2001	1.221
21 September 2001	1.200
24 September 2001	1.213
25 September 2001	1.218
26 September 2001	1.173
27 September 2001	1.134
28 September 2001	1.144
1 October 2001	1.123
2 October 2001	1.128
3 October 2001	1.113
4 October 2001	1.127
5 October 2001	1.129
8 October 2001	ND
9 October 2001	1.196
10 October 2001	1.172
11 October 2001	1.221
12 October 2001	1.233
15 October 2001	1.183
16 October 2001	1.159
17 October 2001	1.153
18 October 2001	1.170
19 October 2001	1.201
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.204

23 October 2001	1.220
24 October 2001	1.193
25 October 2001	1.177
26 October 2001	1.162
29 October 2001	1.145
30 October 2001	1.120
31 October 2001	1.031
1 November 2001	0.986
2 November 2001	1.116
5 November 2001	1.072
6 November 2001	1.080
7 November 2001	1.020
8 November 2001	1.083
9 November 2001	1.109
12 November 2001	ND
13 November 2001	1.154
14 November 2001	1.230
15 November 2001	1.385
16 November 2001	1.479
19 November 2001	1.432
20 November 2001	1.493
21 November 2001	1.566
22 November 2001	ND
23 November 2001	1.605
26 November 2001	1.617
27 November 2001	1.623
28 November 2001	1.608
29 November 2001	1.513
30 November 2001	1.516
3 December 2001	1.482
4 December 2001	1.447
5 December 2001	1.583
6 December 2001	1.685
7 December 2001	1.836
10 December 2001	1.840
11 December 2001	1.817
12 December 2001	1.735
13 December 2001	1.792
14 December 2001	1.864
17 December 2001	1.880
18 December 2001	1.822
19 December 2001	1.749
20 December 2001	1.757
21 December 2001	1.781
24 December 2001	1.819
25 December 2001	ND
26 December 2001	1.843
27 December 2001	1.791
28 December 2001	1.824
31 December 2001	1.762
1 January 2002	ND
2 January 2002	1.844
3 January 2002	1.813
4 January 2002	1.841
7 January 2002	1.773
8 January 2002	1.774
9 January 2002	1.778
10 January 2002	1.687
11 January 2002	1.671
14 January 2002	1.665
15 January 2002	1.626
16 January 2002	1.621
17 January 2002	1.678
18 January 2002	1.643
21 January 2002	ND
22 January 2002	1.652
23 January 2002	1.715
24 January 2002	1.702
Loading [(MathJax)/jax/output/HTML-CSS/jax.js	1.729

28 January 2002	1.737
29 January 2002	1.666
30 January 2002	1.657
31 January 2002	1.677
1 February 2002	1.652
4 February 2002	1.599
5 February 2002	1.580
6 February 2002	1.623
7 February 2002	1.643
8 February 2002	1.612
11 February 2002	1.617
12 February 2002	1.654
13 February 2002	1.682
14 February 2002	1.633
15 February 2002	1.587
18 February 2002	ND
19 February 2002	1.599
20 February 2002	1.589
21 February 2002	1.582
22 February 2002	1.549
25 February 2002	1.554
26 February 2002	1.608
27 February 2002	1.552
28 February 2002	1.576
1 March 2002	1.643
4 March 2002	1.663
5 March 2002	1.665
6 March 2002	1.703
7 March 2002	1.811
8 March 2002	1.863
11 March 2002	1.870
12 March 2002	1.864
13 March 2002	1.846
14 March 2002	1.919
15 March 2002	1.873
18 March 2002	1.842
19 March 2002	1.864
20 March 2002	1.909
21 March 2002	1.903
22 March 2002	1.910
25 March 2002	1.901
26 March 2002	1.869
27 March 2002	1.879
28 March 2002	1.924
29 March 2002	ND
1 April 2002	1.921
2 April 2002	1.873
3 April 2002	1.842
4 April 2002	1.817
5 April 2002	1.776
8 April 2002	1.807
9 April 2002	1.785
10 April 2002	1.805
11 April 2002	1.785
12 April 2002	1.755
15 April 2002	1.734
16 April 2002	1.762
17 April 2002	1.808
18 April 2002	1.804
19 April 2002	1.789
22 April 2002	1.777
23 April 2002	1.767
24 April 2002	1.723
25 April 2002	1.713
26 April 2002	1.690
29 April 2002	1.717
30 April 2002	1.707
1 May 2002	1.677
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.708

3 May 2002	1.676
6 May 2002	1.695
7 May 2002	1.694
8 May 2002	1.770
9 May 2002	1.751
10 May 2002	1.715
13 May 2002	1.766
14 May 2002	1.810
15 May 2002	1.791
16 May 2002	1.751
17 May 2002	1.777
20 May 2002	1.733
21 May 2002	1.706
22 May 2002	1.677
23 May 2002	1.689
24 May 2002	1.682
27 May 2002	ND
28 May 2002	1.671
29 May 2002	1.637
30 May 2002	1.605
31 May 2002	1.607
3 June 2002	1.595
4 June 2002	1.586
5 June 2002	1.609
6 June 2002	1.586
7 June 2002	1.632
10 June 2002	1.604
11 June 2002	1.576
12 June 2002	1.552
13 June 2002	1.526
14 June 2002	1.461
17 June 2002	1.492
18 June 2002	1.489
19 June 2002	1.424
20 June 2002	1.468
21 June 2002	1.431
24 June 2002	1.474
25 June 2002	1.492
26 June 2002	1.421
27 June 2002	1.484
28 June 2002	1.495
1 July 2002	1.483
2 July 2002	1.438
3 July 2002	1.441
4 July 2002	ND
5 July 2002	1.508
8 July 2002	1.477
9 July 2002	1.429
10 July 2002	1.352
11 July 2002	1.342
12 July 2002	1.317
15 July 2002	1.346
16 July 2002	1.396
17 July 2002	1.361
18 July 2002	1.321
19 July 2002	1.282
22 July 2002	1.203
23 July 2002	1.178
24 July 2002	1.180
25 July 2002	1.141
26 July 2002	1.147
29 July 2002	1.251
30 July 2002	1.271
31 July 2002	1.189
1 August 2002	1.162
2 August 2002	1.066
5 August 2002	1.034
6 August 2002	1.113
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.079

8 August 2002	1.109
9 August 2002	1.016
12 August 2002	0.978
13 August 2002	0.931
14 August 2002	0.901
15 August 2002	0.970
16 August 2002	1.079
19 August 2002	1.069
20 August 2002	0.990
21 August 2002	0.999
22 August 2002	1.044
23 August 2002	0.997
26 August 2002	0.969
27 August 2002	1.022
28 August 2002	0.977
29 August 2002	0.928
30 August 2002	0.908
2 September 2002	ND
3 September 2002	0.791
4 September 2002	0.770
5 September 2002	0.742
6 September 2002	0.823
9 September 2002	0.817
10 September 2002	0.795
11 September 2002	0.842
12 September 2002	0.779
13 September 2002	0.733
16 September 2002	0.714
17 September 2002	0.685
18 September 2002	0.673
19 September 2002	0.645
20 September 2002	0.645
23 September 2002	0.561
24 September 2002	0.550
25 September 2002	0.622
26 September 2002	0.651
27 September 2002	0.603
30 September 2002	0.563
1 October 2002	0.620
2 October 2002	0.619
3 October 2002	0.615
4 October 2002	0.588
7 October 2002	0.551
8 October 2002	0.553
9 October 2002	0.529
10 October 2002	0.567
11 October 2002	0.675
14 October 2002	ND
15 October 2002	0.823
16 October 2002	0.842
17 October 2002	0.912
18 October 2002	0.898
21 October 2002	0.955
22 October 2002	0.979
23 October 2002	0.971
24 October 2002	0.915
25 October 2002	0.887
28 October 2002	0.881
29 October 2002	0.791
30 October 2002	0.817
31 October 2002	0.783
1 November 2002	0.845
4 November 2002	0.894
5 November 2002	0.926
6 November 2002	0.935
7 November 2002	0.804
8 November 2002	0.788
11 November 2002	ND
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.791

13 November 2002	0.780
14 November 2002	0.911
15 November 2002	0.936
18 November 2002	0.915
19 November 2002	0.892
20 November 2002	0.981
21 November 2002	1.035
22 November 2002	1.060
25 November 2002	1.065
26 November 2002	0.990
27 November 2002	1.137
28 November 2002	ND
29 November 2002	1.107
2 December 2002	1.120
3 December 2002	1.130
4 December 2002	1.087
5 December 2002	1.046
6 December 2002	1.020
9 December 2002	0.974
10 December 2002	0.962
11 December 2002	0.924
12 December 2002	0.927
13 December 2002	0.965
16 December 2002	1.010
17 December 2002	1.001
18 December 2002	0.952
19 December 2002	0.872
20 December 2002	0.869
23 December 2002	0.878
24 December 2002	0.864
25 December 2002	ND
26 December 2002	0.844
27 December 2002	0.775
30 December 2002	0.749
31 December 2002	0.764
1 January 2003	ND
2 January 2003	0.941
3 January 2003	0.931
6 January 2003	0.962
7 January 2003	0.942
8 January 2003	0.922
9 January 2003	1.064
10 January 2003	1.066
13 January 2003	1.038
14 January 2003	0.998
15 January 2003	0.993
16 January 2003	0.999
17 January 2003	0.957
20 January 2003	ND
21 January 2003	0.922
22 January 2003	0.871
23 January 2003	0.891
24 January 2003	0.859
27 January 2003	0.895
28 January 2003	0.912
29 January 2003	0.958
30 January 2003	0.931
31 January 2003	0.917
3 February 2003	0.934
4 February 2003	0.902
5 February 2003	0.958
6 February 2003	0.921
7 February 2003	0.910
10 February 2003	0.932
11 February 2003	0.922
12 February 2003	0.873
13 February 2003	0.826
14 February 2003	0.869
Loading [MathJax]/jax/output/HTML-CSS/jax.js	ND

18 February 2003	0.854
19 February 2003	0.812
20 February 2003	0.777
21 February 2003	0.807
24 February 2003	0.777
25 February 2003	0.739
26 February 2003	0.713
27 February 2003	0.701
28 February 2003	0.662
3 March 2003	0.632
4 March 2003	0.613
5 March 2003	0.596
6 March 2003	0.627
7 March 2003	0.613
10 March 2003	0.589
11 March 2003	0.600
12 March 2003	0.602
13 March 2003	0.708
14 March 2003	0.698
17 March 2003	0.766
18 March 2003	0.829
19 March 2003	0.892
20 March 2003	0.917
21 March 2003	0.990
24 March 2003	0.908
25 March 2003	0.895
26 March 2003	0.889
27 March 2003	0.880
28 March 2003	0.859
31 March 2003	0.786
1 April 2003	0.796
2 April 2003	0.874
3 April 2003	0.872
4 April 2003	0.892
7 April 2003	0.931
8 April 2003	0.876
9 April 2003	0.856
10 April 2003	0.852
11 April 2003	0.880
14 April 2003	0.905
15 April 2003	0.864
16 April 2003	0.857
17 April 2003	0.873
18 April 2003	ND
21 April 2003	0.895
22 April 2003	0.900
23 April 2003	0.907
24 April 2003	0.844
25 April 2003	0.829
28 April 2003	0.829
29 April 2003	0.855
30 April 2003	0.820
1 May 2003	0.806
2 May 2003	0.842
5 May 2003	0.822
6 May 2003	0.764
7 May 2003	0.649
8 May 2003	0.628
9 May 2003	0.619
12 May 2003	0.587
13 May 2003	0.572
14 May 2003	0.506
15 May 2003	0.510
16 May 2003	0.477
19 May 2003	0.462
20 May 2003	0.407
21 May 2003	0.405
22 May 2003	0.369
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	0.366

26 May 2003	ND
27 May 2003	0.418
28 May 2003	0.414
29 May 2003	0.348
30 May 2003	0.353
2 June 2003	0.407
3 June 2003	0.349
4 June 2003	0.314
5 June 2003	0.353
6 June 2003	0.386
9 June 2003	0.334
10 June 2003	0.272
11 June 2003	0.287
12 June 2003	0.273
13 June 2003	0.237
16 June 2003	0.284
17 June 2003	0.363
18 June 2003	0.449
19 June 2003	0.447
20 June 2003	0.474
23 June 2003	0.411
24 June 2003	0.385
25 June 2003	0.430
26 June 2003	0.538
27 June 2003	0.580
30 June 2003	0.549
1 July 2003	0.561
2 July 2003	0.560
3 July 2003	0.647
4 July 2003	ND
7 July 2003	0.700
8 July 2003	0.710
9 July 2003	0.691
10 July 2003	0.673
11 July 2003	0.639
14 July 2003	0.685
15 July 2003	0.852
16 July 2003	0.887
17 July 2003	0.906
18 July 2003	0.926
21 July 2003	0.996
22 July 2003	1.062
23 July 2003	1.025
24 July 2003	1.081
25 July 2003	1.104
28 July 2003	1.174
29 July 2003	1.261
30 July 2003	1.229
31 July 2003	1.294
1 August 2003	1.292
4 August 2003	1.233
5 August 2003	1.292
6 August 2003	1.186
7 August 2003	1.136
8 August 2003	1.125
11 August 2003	1.191
12 August 2003	1.208
13 August 2003	1.355
14 August 2003	1.342
15 August 2003	1.339
18 August 2003	1.292
19 August 2003	1.222
20 August 2003	1.281
21 August 2003	1.349
22 August 2003	1.311
25 August 2003	1.346
26 August 2003	1.347
27 August 2003	1.367
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.288

29 August 2003	1.312
1 September 2003	ND
2 September 2003	1.435
3 September 2003	1.430
4 September 2003	1.353
5 September 2003	1.223
8 September 2003	1.246
9 September 2003	1.221
10 September 2003	1.137
11 September 2003	1.177
12 September 2003	1.127
15 September 2003	1.124
16 September 2003	1.131
17 September 2003	1.048
18 September 2003	1.049
19 September 2003	1.045
22 September 2003	1.114
23 September 2003	1.090
24 September 2003	1.034
25 September 2003	1.005
26 September 2003	0.929
29 September 2003	0.963
30 September 2003	0.871
1 October 2003	0.873
2 October 2003	0.939
3 October 2003	1.077
6 October 2003	1.053
7 October 2003	1.123
8 October 2003	1.119
9 October 2003	1.155
10 October 2003	1.126
13 October 2003	ND
14 October 2003	1.196
15 October 2003	1.235
16 October 2003	1.265
17 October 2003	1.230
20 October 2003	1.222
21 October 2003	1.201
22 October 2003	1.131
23 October 2003	1.161
24 October 2003	1.084
27 October 2003	1.117
28 October 2003	1.069
29 October 2003	1.131
30 October 2003	1.182
31 October 2003	1.162
3 November 2003	1.216
4 November 2003	1.172
5 November 2003	1.202
6 November 2003	1.262
7 November 2003	1.281
10 November 2003	1.290
11 November 2003	ND
12 November 2003	1.252
13 November 2003	1.152
14 November 2003	1.088
17 November 2003	1.056
18 November 2003	1.034
19 November 2003	1.082
20 November 2003	1.041
21 November 2003	1.036
24 November 2003	1.088
25 November 2003	1.073
26 November 2003	1.119
27 November 2003	ND
28 November 2003	1.181
1 December 2003	1.246
2 December 2003	1.238
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.254

4 December 2003	1.226
5 December 2003	1.118
8 December 2003	1.147
9 December 2003	1.171
10 December 2003	1.156
11 December 2003	1.129
12 December 2003	1.122
15 December 2003	1.140
16 December 2003	1.111
17 December 2003	1.078
18 December 2003	1.055
19 December 2003	1.060
22 December 2003	1.069
23 December 2003	1.136
24 December 2003	1.087
25 December 2003	ND
26 December 2003	1.056
29 December 2003	1.110
30 December 2003	1.140
31 December 2003	1.124
1 January 2004	ND
2 January 2004	1.203
5 January 2004	1.221
6 January 2004	1.142
7 January 2004	1.114
8 January 2004	1.112
9 January 2004	1.001
12 January 2004	0.988
13 January 2004	0.949
14 January 2004	0.915
15 January 2004	0.905
16 January 2004	0.952
19 January 2004	ND
20 January 2004	0.979
21 January 2004	0.961
22 January 2004	0.918
23 January 2004	0.995
26 January 2004	1.042
27 January 2004	1.013
28 January 2004	1.076
29 January 2004	1.084
30 January 2004	1.048
2 February 2004	1.060
3 February 2004	1.031
4 February 2004	1.044
5 February 2004	1.066
6 February 2004	1.016
9 February 2004	0.994
10 February 2004	1.012
11 February 2004	0.958
12 February 2004	0.978
13 February 2004	0.950
16 February 2004	ND
17 February 2004	0.945
18 February 2004	0.953
19 February 2004	0.950
20 February 2004	0.987
23 February 2004	0.952
24 February 2004	0.936
25 February 2004	0.924
26 February 2004	0.944
27 February 2004	0.927
1 March 2004	0.910
2 March 2004	0.948
3 March 2004	0.956
4 March 2004	0.930
5 March 2004	0.789
8 March 2004	0.736
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.686

10 March 2004	0.687
11 March 2004	0.710
12 March 2004	0.715
15 March 2004	0.712
16 March 2004	0.655
17 March 2004	0.658
18 March 2004	0.705
19 March 2004	0.734
22 March 2004	0.685
23 March 2004	0.679
24 March 2004	0.682
25 March 2004	0.706
26 March 2004	0.779
29 March 2004	0.820
30 March 2004	0.821
31 March 2004	0.783
1 April 2004	0.820
2 April 2004	1.006
5 April 2004	1.080
6 April 2004	1.046
7 April 2004	1.046
8 April 2004	1.072
9 April 2004	ND
12 April 2004	1.105
13 April 2004	1.180
14 April 2004	1.201
15 April 2004	1.228
16 April 2004	1.199
19 April 2004	1.215
20 April 2004	1.238
21 April 2004	1.249
22 April 2004	1.219
23 April 2004	1.270
26 April 2004	1.264
27 April 2004	1.252
28 April 2004	1.300
29 April 2004	1.345
30 April 2004	1.321
3 May 2004	1.318
4 May 2004	1.350
5 May 2004	1.383
6 May 2004	1.391
7 May 2004	1.495
10 May 2004	1.504
11 May 2004	1.492
12 May 2004	1.513
13 May 2004	1.537
14 May 2004	1.491
17 May 2004	1.422
18 May 2004	1.440
19 May 2004	1.474
20 May 2004	1.434
21 May 2004	1.455
24 May 2004	1.442
25 May 2004	1.428
26 May 2004	1.388
27 May 2004	1.338
28 May 2004	1.366
31 May 2004	ND
1 June 2004	1.395
2 June 2004	1.412
3 June 2004	1.395
4 June 2004	1.432
7 June 2004	1.422
8 June 2004	1.409
9 June 2004	1.421
10 June 2004	1.395
11 June 2004	ND
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.423

15 June 2004	1.301
16 June 2004	1.333
17 June 2004	1.314
18 June 2004	1.321
21 June 2004	1.303
22 June 2004	1.313
23 June 2004	1.305
24 June 2004	1.264
25 June 2004	1.264
28 June 2004	1.316
29 June 2004	1.280
30 June 2004	1.234
1 July 2004	1.203
2 July 2004	1.131
5 July 2004	ND
6 July 2004	1.134
7 July 2004	1.139
8 July 2004	1.131
9 July 2004	1.127
12 July 2004	1.108
13 July 2004	1.124
14 July 2004	1.125
15 July 2004	1.127
16 July 2004	1.047
19 July 2004	1.043
20 July 2004	1.103
21 July 2004	1.125
22 July 2004	1.116
23 July 2004	1.095
26 July 2004	1.113
27 July 2004	1.198
28 July 2004	1.190
29 July 2004	1.188
30 July 2004	1.112
2 August 2004	1.093
3 August 2004	1.069
4 August 2004	1.067
5 August 2004	1.045
6 August 2004	0.921
9 August 2004	0.941
10 August 2004	0.961
11 August 2004	0.959
12 August 2004	0.934
13 August 2004	0.902
16 August 2004	0.921
17 August 2004	0.885
18 August 2004	0.906
19 August 2004	0.894
20 August 2004	0.900
23 August 2004	0.925
24 August 2004	0.925
25 August 2004	0.907
26 August 2004	0.884
27 August 2004	0.883
30 August 2004	0.851
31 August 2004	0.796
1 September 2004	0.792
2 September 2004	0.842
3 September 2004	0.891
6 September 2004	ND
7 September 2004	0.849
8 September 2004	0.800
9 September 2004	0.820
10 September 2004	0.802
13 September 2004	0.777
14 September 2004	0.768
15 September 2004	0.787
16 September 2004	0.723
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.747

20 September 2004	0.700
21 September 2004	0.676
22 September 2004	0.640
23 September 2004	0.655
24 September 2004	0.653
27 September 2004	0.621
28 September 2004	0.639
29 September 2004	0.690
30 September 2004	0.720
1 October 2004	0.776
4 October 2004	0.756
5 October 2004	0.753
6 October 2004	0.787
7 October 2004	0.812
8 October 2004	0.733
11 October 2004	ND
12 October 2004	0.710
13 October 2004	0.693
14 October 2004	0.648
15 October 2004	0.668
18 October 2004	0.663
19 October 2004	0.662
20 October 2004	0.614
21 October 2004	0.615
22 October 2004	0.602
25 October 2004	0.580
26 October 2004	0.590
27 October 2004	0.653
28 October 2004	0.645
29 October 2004	0.609
1 November 2004	0.640
2 November 2004	0.630
3 November 2004	0.625
4 November 2004	0.626
5 November 2004	0.679
8 November 2004	0.689
9 November 2004	0.686
10 November 2004	0.704
11 November 2004	ND
12 November 2004	0.666
15 November 2004	0.653
16 November 2004	0.705
17 November 2004	0.659
18 November 2004	0.592
19 November 2004	0.655
22 November 2004	0.630
23 November 2004	0.640
24 November 2004	0.643
25 November 2004	ND
26 November 2004	0.678
29 November 2004	0.745
30 November 2004	0.765
1 December 2004	0.782
2 December 2004	0.792
3 December 2004	0.697
6 December 2004	0.674
7 December 2004	0.662
8 December 2004	0.590
9 December 2004	0.605
10 December 2004	0.588
13 December 2004	0.573
14 December 2004	0.561
15 December 2004	0.524
16 December 2004	0.604
17 December 2004	0.614
20 December 2004	0.596
21 December 2004	0.575
22 December 2004	0.594
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.602

24 December 2004	ND
27 December 2004	0.649
28 December 2004	0.648
29 December 2004	0.668
30 December 2004	0.632
31 December 2004	0.609
3 January 2005	0.604
4 January 2005	0.643
5 January 2005	0.640
6 January 2005	0.642
7 January 2005	0.649
10 January 2005	0.642
11 January 2005	0.616
12 January 2005	0.613
13 January 2005	0.575
14 January 2005	0.589
17 January 2005	ND
18 January 2005	0.575
19 January 2005	0.575
20 January 2005	0.558
21 January 2005	0.550
24 January 2005	0.517
25 January 2005	0.570
26 January 2005	0.563
27 January 2005	0.581
28 January 2005	0.530
31 January 2005	0.509
1 February 2005	0.517
2 February 2005	0.522
3 February 2005	0.540
4 February 2005	0.477
7 February 2005	0.454
8 February 2005	0.433
9 February 2005	0.397
10 February 2005	0.447
11 February 2005	0.459
14 February 2005	0.442
15 February 2005	0.459
16 February 2005	0.499
17 February 2005	0.521
18 February 2005	0.570
21 February 2005	ND
22 February 2005	0.586
23 February 2005	0.567
24 February 2005	0.581
25 February 2005	0.562
28 February 2005	0.621
1 March 2005	0.638
2 March 2005	0.648
3 March 2005	0.652
4 March 2005	0.600
7 March 2005	0.589
8 March 2005	0.642
9 March 2005	0.751
10 March 2005	0.701
11 March 2005	0.764
14 March 2005	0.737
15 March 2005	0.755
16 March 2005	0.735
17 March 2005	0.698
18 March 2005	0.723
21 March 2005	0.733
22 March 2005	0.787
23 March 2005	0.782
24 March 2005	0.773
25 March 2005	ND
28 March 2005	0.800
29 March 2005	0.769
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.738

31 March 2005	0.690
1 April 2005	0.656
4 April 2005	0.674
5 April 2005	0.677
6 April 2005	0.653
7 April 2005	0.682
8 April 2005	0.680
11 April 2005	0.646
12 April 2005	0.588
13 April 2005	0.590
14 April 2005	0.575
15 April 2005	0.510
18 April 2005	0.494
19 April 2005	0.472
20 April 2005	0.475
21 April 2005	0.530
22 April 2005	0.491
25 April 2005	0.483
26 April 2005	0.496
27 April 2005	0.473
28 April 2005	0.427
29 April 2005	0.437
2 May 2005	0.432
3 May 2005	0.432
4 May 2005	0.428
5 May 2005	0.423
6 May 2005	0.472
9 May 2005	0.478
10 May 2005	0.444
11 May 2005	0.431
12 May 2005	0.417
13 May 2005	0.397
16 May 2005	0.396
17 May 2005	0.384
18 May 2005	0.355
19 May 2005	0.384
20 May 2005	0.396
23 May 2005	0.346
24 May 2005	0.320
25 May 2005	0.355
26 May 2005	0.357
27 May 2005	0.347
30 May 2005	ND
31 May 2005	0.299
1 June 2005	0.230
2 June 2005	0.221
3 June 2005	0.285
6 June 2005	0.274
7 June 2005	0.241
8 June 2005	0.258
9 June 2005	0.277
10 June 2005	0.327
13 June 2005	0.356
14 June 2005	0.377
15 June 2005	0.372
16 June 2005	0.347
17 June 2005	0.349
20 June 2005	0.354
21 June 2005	0.303
22 June 2005	0.239
23 June 2005	0.240
24 June 2005	0.203
27 June 2005	0.183
28 June 2005	0.226
29 June 2005	0.240
30 June 2005	0.197
1 July 2005	0.265
4 July 2005	ND
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.311

6 July 2005	0.285
7 July 2005	0.275
8 July 2005	0.302
11 July 2005	0.298
12 July 2005	0.322
13 July 2005	0.339
14 July 2005	0.353
15 July 2005	0.344
18 July 2005	0.364
19 July 2005	0.340
20 July 2005	0.316
21 July 2005	0.388
22 July 2005	0.347
25 July 2005	0.347
26 July 2005	0.342
27 July 2005	0.358
28 July 2005	0.307
29 July 2005	0.365
1 August 2005	0.384
2 August 2005	0.392
3 August 2005	0.366
4 August 2005	0.382
5 August 2005	0.428
8 August 2005	0.441
9 August 2005	0.432
10 August 2005	0.423
11 August 2005	0.376
12 August 2005	0.320
15 August 2005	0.339
16 August 2005	0.308
17 August 2005	0.341
18 August 2005	0.293
19 August 2005	0.281
22 August 2005	0.284
23 August 2005	0.275
24 August 2005	0.271
25 August 2005	0.265
26 August 2005	0.274
29 August 2005	0.271
30 August 2005	0.251
31 August 2005	0.160
1 September 2005	0.179
2 September 2005	0.191
5 September 2005	ND
6 September 2005	0.214
7 September 2005	0.246
8 September 2005	0.235
9 September 2005	0.219
12 September 2005	0.254
13 September 2005	0.226
14 September 2005	0.248
15 September 2005	0.285
16 September 2005	0.308
19 September 2005	0.301
20 September 2005	0.290
21 September 2005	0.256
22 September 2005	0.248
23 September 2005	0.293
26 September 2005	0.322
27 September 2005	0.325
28 September 2005	0.299
29 September 2005	0.323
30 September 2005	0.379
3 October 2005	0.361
4 October 2005	0.353
5 October 2005	0.344
6 October 2005	0.354
7 October 2005	0.337
Loading [MathJax]/jax/output/HTML-CSS/jax.js	ND

11 October 2005	0.348
12 October 2005	0.379
13 October 2005	0.402
14 October 2005	0.406
17 October 2005	0.407
18 October 2005	0.400
19 October 2005	0.381
20 October 2005	0.378
21 October 2005	0.322
24 October 2005	0.364
25 October 2005	0.421
26 October 2005	0.462
27 October 2005	0.444
28 October 2005	0.442
31 October 2005	0.427
1 November 2005	0.437
2 November 2005	0.463
3 November 2005	0.493
4 November 2005	0.508
7 November 2005	0.537
8 November 2005	0.475
9 November 2005	0.519
10 November 2005	0.464
11 November 2005	ND
14 November 2005	0.497
15 November 2005	0.463
16 November 2005	0.409
17 November 2005	0.402
18 November 2005	0.370
21 November 2005	0.353
22 November 2005	0.337
23 November 2005	0.361
24 November 2005	ND
25 November 2005	0.327
28 November 2005	0.304
29 November 2005	0.354
30 November 2005	0.367
1 December 2005	0.389
2 December 2005	0.389
5 December 2005	0.421
6 December 2005	0.364
7 December 2005	0.388
8 December 2005	0.353
9 December 2005	0.400
12 December 2005	0.406
13 December 2005	0.395
14 December 2005	0.334
15 December 2005	0.348
16 December 2005	0.328
19 December 2005	0.315
20 December 2005	0.328
21 December 2005	0.340
22 December 2005	0.303
23 December 2005	0.263
26 December 2005	ND
27 December 2005	0.233
28 December 2005	0.263
29 December 2005	0.247
30 December 2005	0.257
2 January 2006	ND
3 January 2006	0.244
4 January 2006	0.232
5 January 2006	0.236
6 January 2006	0.244
9 January 2006	0.244
10 January 2006	0.272
11 January 2006	0.286
12 January 2006	0.266
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.217

16 January 2006	ND
17 January 2006	0.195
18 January 2006	0.199
19 January 2006	0.223
20 January 2006	0.213
23 January 2006	0.207
24 January 2006	0.226
25 January 2006	0.281
26 January 2006	0.310
27 January 2006	0.301
30 January 2006	0.312
31 January 2006	0.304
1 February 2006	0.323
2 February 2006	0.325
3 February 2006	0.299
6 February 2006	0.297
7 February 2006	0.314
8 February 2006	0.331
9 February 2006	0.315
10 February 2006	0.344
13 February 2006	0.334
14 February 2006	0.353
15 February 2006	0.352
16 February 2006	0.346
17 February 2006	0.306
20 February 2006	ND
21 February 2006	0.321
22 February 2006	0.296
23 February 2006	0.317
24 February 2006	0.331
27 February 2006	0.345
28 February 2006	0.310
1 March 2006	0.333
2 March 2006	0.376
3 March 2006	0.405
6 March 2006	0.441
7 March 2006	0.438
8 March 2006	0.434
9 March 2006	0.427
10 March 2006	0.438
13 March 2006	0.438
14 March 2006	0.389
15 March 2006	0.397
16 March 2006	0.344
17 March 2006	0.366
20 March 2006	0.350
21 March 2006	0.381
22 March 2006	0.378
23 March 2006	0.404
24 March 2006	0.362
27 March 2006	0.377
28 March 2006	0.434
29 March 2006	0.447
30 March 2006	0.479
31 March 2006	0.479
3 April 2006	0.486
4 April 2006	0.482
5 April 2006	0.463
6 April 2006	0.492
7 April 2006	0.535
10 April 2006	0.527
11 April 2006	0.499
12 April 2006	0.523
13 April 2006	0.567
14 April 2006	ND
17 April 2006	0.543
18 April 2006	0.529
19 April 2006	0.562
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.563

21 April 2006	0.534
24 April 2006	0.521
25 April 2006	0.572
26 April 2006	0.587
27 April 2006	0.579
28 April 2006	0.569
1 May 2006	0.601
2 May 2006	0.585
3 May 2006	0.611
4 May 2006	0.609
5 May 2006	0.581
8 May 2006	0.579
9 May 2006	0.585
10 May 2006	0.579
11 May 2006	0.605
12 May 2006	0.641
15 May 2006	0.616
16 May 2006	0.579
17 May 2006	0.623
18 May 2006	0.554
19 May 2006	0.533
22 May 2006	0.523
23 May 2006	0.539
24 May 2006	0.520
25 May 2006	0.552
26 May 2006	0.540
29 May 2006	ND
30 May 2006	0.559
31 May 2006	0.570
1 June 2006	0.569
2 June 2006	0.493
5 June 2006	0.507
6 June 2006	0.486
7 June 2006	0.502
8 June 2006	0.478
9 June 2006	0.462
12 June 2006	0.462
13 June 2006	0.444
14 June 2006	0.497
15 June 2006	0.522
16 June 2006	0.538
19 June 2006	0.542
20 June 2006	0.546
21 June 2006	0.550
22 June 2006	0.577
23 June 2006	0.590
26 June 2006	0.599
27 June 2006	0.570
28 June 2006	0.589
29 June 2006	0.571
30 June 2006	0.523
3 July 2006	0.523
4 July 2006	ND
5 July 2006	0.570
6 July 2006	0.552
7 July 2006	0.515
10 July 2006	0.507
11 July 2006	0.484
12 July 2006	0.493
13 July 2006	0.480
14 July 2006	0.472
17 July 2006	0.468
18 July 2006	0.503
19 July 2006	0.457
20 July 2006	0.438
21 July 2006	0.456
24 July 2006	0.452
25 July 2006	0.467
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.455

27 July 2006	0.466
28 July 2006	0.431
31 July 2006	0.425
1 August 2006	0.418
2 August 2006	0.402
3 August 2006	0.393
4 August 2006	0.359
7 August 2006	0.365
8 August 2006	0.378
9 August 2006	0.388
10 August 2006	0.385
11 August 2006	0.409
14 August 2006	0.422
15 August 2006	0.385
16 August 2006	0.342
17 August 2006	0.337
18 August 2006	0.311
21 August 2006	0.304
22 August 2006	0.303
23 August 2006	0.304
24 August 2006	0.298
25 August 2006	0.292
28 August 2006	0.296
29 August 2006	0.302
30 August 2006	0.294
31 August 2006	0.283
1 September 2006	0.286
4 September 2006	ND
5 September 2006	0.314
6 September 2006	0.332
7 September 2006	0.319
8 September 2006	0.310
11 September 2006	0.320
12 September 2006	0.302
13 September 2006	0.300
14 September 2006	0.315
15 September 2006	0.320
18 September 2006	0.328
19 September 2006	0.278
20 September 2006	0.275
21 September 2006	0.230
22 September 2006	0.202
25 September 2006	0.169
26 September 2006	0.186
27 September 2006	0.198
28 September 2006	0.214
29 September 2006	0.226
2 October 2006	0.219
3 October 2006	0.216
4 October 2006	0.188
5 October 2006	0.208
6 October 2006	0.267
9 October 2006	ND
10 October 2006	0.290
11 October 2006	0.305
12 October 2006	0.299
13 October 2006	0.314
16 October 2006	0.299
17 October 2006	0.284
18 October 2006	0.277
19 October 2006	0.293
20 October 2006	0.295
23 October 2006	0.319
24 October 2006	0.314
25 October 2006	0.276
26 October 2006	0.239
27 October 2006	0.214
30 October 2006	0.219
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.171

1 November 2006	0.150
2 November 2006	0.178
3 November 2006	0.235
6 November 2006	0.227
7 November 2006	0.197
8 November 2006	0.177
9 November 2006	0.173
10 November 2006	0.149
13 November 2006	0.155
14 November 2006	0.132
15 November 2006	0.156
16 November 2006	0.190
17 November 2006	0.159
20 November 2006	0.151
21 November 2006	0.135
22 November 2006	0.124
23 November 2006	ND
24 November 2006	0.117
27 November 2006	0.108
28 November 2006	0.096
29 November 2006	0.101
30 November 2006	0.066
1 December 2006	0.074
4 December 2006	0.079
5 December 2006	0.087
6 December 2006	0.108
7 December 2006	0.116
8 December 2006	0.151
11 December 2006	0.123
12 December 2006	0.103
13 December 2006	0.159
14 December 2006	0.166
15 December 2006	0.169
18 December 2006	0.161
19 December 2006	0.165
20 December 2006	0.166
21 December 2006	0.141
22 December 2006	0.189
25 December 2006	ND
26 December 2006	0.177
27 December 2006	0.206
28 December 2006	0.242
29 December 2006	0.255
1 January 2007	ND
2 January 2007	0.239
3 January 2007	0.226
4 January 2007	0.206
5 January 2007	0.217
8 January 2007	0.218
9 January 2007	0.208
10 January 2007	0.227
11 January 2007	0.259
12 January 2007	0.286
15 January 2007	ND
16 January 2007	0.272
17 January 2007	0.295
18 January 2007	0.272
19 January 2007	0.288
22 January 2007	0.273
23 January 2007	0.308
24 January 2007	0.314
25 January 2007	0.352
26 January 2007	0.363
29 January 2007	0.374
30 January 2007	0.364
31 January 2007	0.331
1 February 2007	0.336
2 February 2007	0.331
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.318

6 February 2007	0.279
7 February 2007	0.265
8 February 2007	0.257
9 February 2007	0.296
12 February 2007	0.308
13 February 2007	0.315
14 February 2007	0.254
15 February 2007	0.238
16 February 2007	0.225
19 February 2007	ND
20 February 2007	0.218
21 February 2007	0.223
22 February 2007	0.247
23 February 2007	0.210
26 February 2007	0.173
27 February 2007	0.102
28 February 2007	0.137
1 March 2007	0.142
2 March 2007	0.127
5 March 2007	0.131
6 March 2007	0.131
7 March 2007	0.111
8 March 2007	0.114
9 March 2007	0.146
12 March 2007	0.122
13 March 2007	0.103
14 March 2007	0.114
15 March 2007	0.111
16 March 2007	0.113
19 March 2007	0.127
20 March 2007	0.115
21 March 2007	0.118
22 March 2007	0.153
23 March 2007	0.170
26 March 2007	0.161
27 March 2007	0.179
28 March 2007	0.187
29 March 2007	0.197
30 March 2007	0.209
2 April 2007	0.208
3 April 2007	0.216
4 April 2007	0.214
5 April 2007	0.234
6 April 2007	0.271
9 April 2007	0.266
10 April 2007	0.258
11 April 2007	0.265
12 April 2007	0.266
13 April 2007	0.278
16 April 2007	0.262
17 April 2007	0.239
18 April 2007	0.219
19 April 2007	0.233
20 April 2007	0.233
23 April 2007	0.215
24 April 2007	0.201
25 April 2007	0.215
26 April 2007	0.242
27 April 2007	0.248
30 April 2007	0.205
1 May 2007	0.199
2 May 2007	0.209
3 May 2007	0.224
4 May 2007	0.202
7 May 2007	0.199
8 May 2007	0.197
9 May 2007	0.228
10 May 2007	0.226
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.254

14 May 2007	0.272
15 May 2007	0.295
16 May 2007	0.300
17 May 2007	0.331
18 May 2007	0.356
21 May 2007	0.335
22 May 2007	0.362
23 May 2007	0.389
24 May 2007	0.389
25 May 2007	0.398
28 May 2007	ND
29 May 2007	0.409
30 May 2007	0.412
31 May 2007	0.432
1 June 2007	0.473
4 June 2007	0.456
5 June 2007	0.495
6 June 2007	0.502
7 June 2007	0.602
8 June 2007	0.617
11 June 2007	0.632
12 June 2007	0.725
13 June 2007	0.686
14 June 2007	0.704
15 June 2007	0.668
18 June 2007	0.647
19 June 2007	0.603
20 June 2007	0.624
21 June 2007	0.645
22 June 2007	0.628
25 June 2007	0.579
26 June 2007	0.590
27 June 2007	0.578
28 June 2007	0.600
29 June 2007	0.540
2 July 2007	0.503
3 July 2007	0.538
4 July 2007	ND
5 July 2007	0.603
6 July 2007	0.644
9 July 2007	0.615
10 July 2007	0.533
11 July 2007	0.564
12 July 2007	0.585
13 July 2007	0.575
16 July 2007	0.532
17 July 2007	0.556
18 July 2007	0.512
19 July 2007	0.527
20 July 2007	0.477
23 July 2007	0.463
24 July 2007	0.447
25 July 2007	0.425
26 July 2007	0.362
27 July 2007	0.366
30 July 2007	0.372
31 July 2007	0.349
1 August 2007	0.344
2 August 2007	0.343
3 August 2007	0.324
6 August 2007	0.329
7 August 2007	0.346
8 August 2007	0.413
9 August 2007	0.416
10 August 2007	0.439
13 August 2007	0.426
14 August 2007	0.421
15 August 2007	0.438
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.434

17 August 2007	0.495
20 August 2007	0.492
21 August 2007	0.478
22 August 2007	0.494
23 August 2007	0.467
24 August 2007	0.419
27 August 2007	0.353
28 August 2007	0.325
29 August 2007	0.368
30 August 2007	0.346
31 August 2007	0.345
3 September 2007	ND
4 September 2007	0.336
5 September 2007	0.285
6 September 2007	0.300
7 September 2007	0.236
10 September 2007	0.215
11 September 2007	0.235
12 September 2007	0.277
13 September 2007	0.318
14 September 2007	0.313
17 September 2007	0.315
18 September 2007	0.364
19 September 2007	0.395
20 September 2007	0.505
21 September 2007	0.483
24 September 2007	0.482
25 September 2007	0.482
26 September 2007	0.489
27 September 2007	0.449
28 September 2007	0.449
1 October 2007	0.415
2 October 2007	0.398
3 October 2007	0.402
4 October 2007	0.387
5 October 2007	0.469
8 October 2007	ND
9 October 2007	0.468
10 October 2007	0.457
11 October 2007	0.458
12 October 2007	0.462
15 October 2007	0.445
16 October 2007	0.448
17 October 2007	0.407
18 October 2007	0.383
19 October 2007	0.318
22 October 2007	0.319
23 October 2007	0.322
24 October 2007	0.297
25 October 2007	0.306
26 October 2007	0.337
29 October 2007	0.313
30 October 2007	0.317
31 October 2007	0.370
1 November 2007	0.320
2 November 2007	0.318
5 November 2007	0.326
6 November 2007	0.356
7 November 2007	0.363
8 November 2007	0.354
9 November 2007	0.320
12 November 2007	ND
13 November 2007	0.319
14 November 2007	0.337
15 November 2007	0.300
16 November 2007	0.300
19 November 2007	0.261
20 November 2007	0.268
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.278

22 November 2007	ND
23 November 2007	0.263
26 November 2007	0.147
27 November 2007	0.214
28 November 2007	0.261
29 November 2007	0.221
30 November 2007	0.242
3 December 2007	0.206
4 December 2007	0.206
5 December 2007	0.225
6 December 2007	0.267
7 December 2007	0.342
10 December 2007	0.356
11 December 2007	0.275
12 December 2007	0.309
13 December 2007	0.378
14 December 2007	0.401
17 December 2007	0.357
18 December 2007	0.312
19 December 2007	0.265
20 December 2007	0.268
21 December 2007	0.345
24 December 2007	0.360
25 December 2007	ND
26 December 2007	0.392
27 December 2007	0.348
28 December 2007	0.286
31 December 2007	0.237
1 January 2008	ND
2 January 2008	0.180
3 January 2008	0.186
4 January 2008	0.157
7 January 2008	0.116
8 January 2008	0.118
9 January 2008	0.098
10 January 2008	0.176
11 January 2008	0.138
14 January 2008	0.142
15 January 2008	0.082
16 January 2008	0.106
17 January 2008	0.067
18 January 2008	0.112
21 January 2008	ND
22 January 2008	0.101
23 January 2008	0.119
24 January 2008	0.227
25 January 2008	0.196
28 January 2008	0.213
29 January 2008	0.274
30 January 2008	0.352
31 January 2008	0.302
1 February 2008	0.275
4 February 2008	0.311
5 February 2008	0.281
6 February 2008	0.293
7 February 2008	0.390
8 February 2008	0.323
11 February 2008	0.296
12 February 2008	0.331
13 February 2008	0.367
14 February 2008	0.480
15 February 2008	0.424
18 February 2008	ND
19 February 2008	0.493
20 February 2008	0.513
21 February 2008	0.422
22 February 2008	0.425
25 February 2008	0.508
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.500

27 February 2008	0.499
28 February 2008	0.409
29 February 2008	0.315
3 March 2008	0.335
4 March 2008	0.404
5 March 2008	0.462
6 March 2008	0.433
7 March 2008	0.388
10 March 2008	0.325
11 March 2008	0.403
12 March 2008	0.337
13 March 2008	0.397
14 March 2008	0.322
17 March 2008	0.261
18 March 2008	0.329
19 March 2008	0.298
20 March 2008	0.262
21 March 2008	0.289
24 March 2008	0.372
25 March 2008	0.347
26 March 2008	0.356
27 March 2008	0.388
28 March 2008	0.333
31 March 2008	0.314
1 April 2008	0.395
2 April 2008	0.419
3 April 2008	0.424
4 April 2008	0.354
7 April 2008	0.398
8 April 2008	0.424
9 April 2008	0.371
10 April 2008	0.425
11 April 2008	0.396
14 April 2008	0.429
15 April 2008	0.469
16 April 2008	0.546
17 April 2008	0.541
18 April 2008	0.546
21 April 2008	0.552
22 April 2008	0.560
23 April 2008	0.588
24 April 2008	0.660
25 April 2008	0.690
28 April 2008	0.645
29 April 2008	0.630
30 April 2008	0.597
1 May 2008	0.591
2 May 2008	0.672
5 May 2008	0.652
6 May 2008	0.682
7 May 2008	0.643
8 May 2008	0.584
9 May 2008	0.560
12 May 2008	0.546
13 May 2008	0.622
14 May 2008	0.649
15 May 2008	0.579
16 May 2008	0.595
19 May 2008	0.577
20 May 2008	0.545
21 May 2008	0.568
22 May 2008	0.652
23 May 2008	0.602
26 May 2008	ND
27 May 2008	0.667
28 May 2008	0.737
29 May 2008	0.791
30 May 2008	0.763
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.690

3 June 2008	0.632
4 June 2008	0.673
5 June 2008	0.728
6 June 2008	0.642
9 June 2008	0.680
10 June 2008	0.737
11 June 2008	0.738
12 June 2008	0.812
13 June 2008	0.846
16 June 2008	0.827
17 June 2008	0.817
18 June 2008	0.763
19 June 2008	0.814
20 June 2008	0.774
23 June 2008	0.784
24 June 2008	0.721
25 June 2008	0.749
26 June 2008	0.706
27 June 2008	0.649
30 June 2008	0.639
1 July 2008	0.640
2 July 2008	0.630
3 July 2008	0.634
4 July 2008	ND
7 July 2008	0.601
8 July 2008	0.562
9 July 2008	0.522
10 July 2008	0.522
11 July 2008	0.625
14 July 2008	0.603
15 July 2008	0.588
16 July 2008	0.674
17 July 2008	0.750
18 July 2008	0.789
21 July 2008	0.769
22 July 2008	0.810
23 July 2008	0.835
24 July 2008	0.748
25 July 2008	0.803
28 July 2008	0.741
29 July 2008	0.757
30 July 2008	0.743
31 July 2008	0.671
1 August 2008	0.654
4 August 2008	0.645
5 August 2008	0.679
6 August 2008	0.704
7 August 2008	0.612
8 August 2008	0.613
11 August 2008	0.636
12 August 2008	0.571
13 August 2008	0.597
14 August 2008	0.557
15 August 2008	0.522
18 August 2008	0.502
19 August 2008	0.523
20 August 2008	0.498
21 August 2008	0.530
22 August 2008	0.550
25 August 2008	0.486
26 August 2008	0.486
27 August 2008	0.472
28 August 2008	0.477
29 August 2008	0.514
1 September 2008	ND
2 September 2008	0.455
3 September 2008	0.421
4 September 2008	0.376
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.394

8 September 2008	0.399
9 September 2008	0.381
10 September 2008	0.414
11 September 2008	0.406
12 September 2008	0.502
15 September 2008	0.393
16 September 2008	0.407
17 September 2008	0.465
18 September 2008	0.573
19 September 2008	0.648
22 September 2008	0.660
23 September 2008	0.668
24 September 2008	0.671
25 September 2008	0.710
26 September 2008	0.688
29 September 2008	0.560
30 September 2008	0.707
1 October 2008	0.699
2 October 2008	0.666
3 October 2008	0.658
6 October 2008	0.565
7 October 2008	0.569
8 October 2008	0.789
9 October 2008	0.914
10 October 2008	0.973
13 October 2008	ND
14 October 2008	1.111
15 October 2008	1.131
16 October 2008	1.051
17 October 2008	1.007
20 October 2008	0.854
21 October 2008	0.739
22 October 2008	0.674
23 October 2008	0.707
24 October 2008	0.801
27 October 2008	0.853
28 October 2008	0.981
29 October 2008	1.055
30 October 2008	1.127
31 October 2008	1.137
3 November 2008	1.111
4 November 2008	0.971
5 November 2008	0.921
6 November 2008	0.951
7 November 2008	1.023
10 November 2008	1.019
11 November 2008	ND
12 November 2008	0.926
13 November 2008	0.962
14 November 2008	0.859
17 November 2008	0.814
18 November 2008	0.720
19 November 2008	0.644
20 November 2008	0.506
21 November 2008	0.588
24 November 2008	0.713
25 November 2008	0.545
26 November 2008	0.479
27 November 2008	ND
28 November 2008	0.462
1 December 2008	0.287
2 December 2008	0.258
3 December 2008	0.261
4 December 2008	0.201
5 December 2008	0.342
8 December 2008	0.407
9 December 2008	0.332
10 December 2008	0.346
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.297

12 December 2008	0.279
15 December 2008	0.231
16 December 2008	0.112
17 December 2008	-0.007
18 December 2008	-0.097
19 December 2008	-0.038
22 December 2008	-0.036
23 December 2008	-0.020
24 December 2008	0.005
25 December 2008	ND
26 December 2008	-0.035
29 December 2008	-0.046
30 December 2008	-0.048
31 December 2008	0.060
1 January 2009	ND
2 January 2009	0.207
5 January 2009	0.210
6 January 2009	0.201
7 January 2009	0.198
8 January 2009	0.151
9 January 2009	0.116
12 January 2009	0.053
13 January 2009	0.037
14 January 2009	-0.030
15 January 2009	-0.031
16 January 2009	0.087
19 January 2009	ND
20 January 2009	0.123
21 January 2009	0.259
22 January 2009	0.309
23 January 2009	0.319
26 January 2009	0.359
27 January 2009	0.273
28 January 2009	0.358
29 January 2009	0.468
30 January 2009	0.460
2 February 2009	0.366
3 February 2009	0.460
4 February 2009	0.497
5 February 2009	0.487
6 February 2009	0.553
9 February 2009	0.553
10 February 2009	0.413
11 February 2009	0.341
12 February 2009	0.312
13 February 2009	0.418
16 February 2009	ND
17 February 2009	0.215
18 February 2009	0.296
19 February 2009	0.391
20 February 2009	0.338
23 February 2009	0.349
24 February 2009	0.372
25 February 2009	0.480
26 February 2009	0.510
27 February 2009	0.533
2 March 2009	0.434
3 March 2009	0.453
4 March 2009	0.528
5 March 2009	0.399
6 March 2009	0.404
9 March 2009	0.431
10 March 2009	0.511
11 March 2009	0.461
12 March 2009	0.409
13 March 2009	0.396
16 March 2009	0.449
17 March 2009	0.500
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.101

19 March 2009	0.132
20 March 2009	0.146
23 March 2009	0.153
24 March 2009	0.160
25 March 2009	0.261
26 March 2009	0.231
27 March 2009	0.240
30 March 2009	0.189
31 March 2009	0.167
1 April 2009	0.135
2 April 2009	0.205
3 April 2009	0.315
6 April 2009	0.357
7 April 2009	0.353
8 April 2009	0.308
9 April 2009	0.366
10 April 2009	ND
13 April 2009	0.311
14 April 2009	0.247
15 April 2009	0.245
16 April 2009	0.308
17 April 2009	0.399
20 April 2009	0.325
21 April 2009	0.374
22 April 2009	0.418
23 April 2009	0.406
24 April 2009	0.459
27 April 2009	0.396
28 April 2009	0.466
29 April 2009	0.526
30 April 2009	0.547
1 May 2009	0.575
4 May 2009	0.544
5 May 2009	0.550
6 May 2009	0.556
7 May 2009	0.646
8 May 2009	0.643
11 May 2009	0.559
12 May 2009	0.549
13 May 2009	0.505
14 May 2009	0.508
15 May 2009	0.534
18 May 2009	0.591
19 May 2009	0.622
20 May 2009	0.579
21 May 2009	0.691
22 May 2009	0.763
25 May 2009	ND
26 May 2009	0.811
27 May 2009	0.975
28 May 2009	0.959
29 May 2009	0.821
1 June 2009	1.020
2 June 2009	0.989
3 June 2009	0.927
4 June 2009	1.065
5 June 2009	1.130
8 June 2009	1.185
9 June 2009	1.167
10 June 2009	1.229
11 June 2009	1.167
12 June 2009	1.127
15 June 2009	1.075
16 June 2009	1.023
17 June 2009	1.035
18 June 2009	1.173
19 June 2009	1.130
22 June 2009	1.072
Loading [MathJax]/jax/output/HTML-CSS/jax.js	1.039

24 June 2009	1.074
25 June 2009	0.946
26 June 2009	0.913
29 June 2009	0.900
30 June 2009	0.913
1 July 2009	0.939
2 July 2009	0.887
3 July 2009	ND
6 July 2009	0.895
7 July 2009	0.848
8 July 2009	0.719
9 July 2009	0.816
10 July 2009	0.717
13 July 2009	0.764
14 July 2009	0.860
15 July 2009	0.959
16 July 2009	0.925
17 July 2009	0.991
20 July 2009	0.935
21 July 2009	0.847
22 July 2009	0.907
23 July 2009	1.024
24 July 2009	1.015
27 July 2009	1.057
28 July 2009	1.035
29 July 2009	1.030
30 July 2009	1.011
31 July 2009	0.901
3 August 2009	1.011
4 August 2009	1.029
5 August 2009	1.094
6 August 2009	1.094
7 August 2009	1.163
10 August 2009	1.096
11 August 2009	1.037
12 August 2009	1.067
13 August 2009	0.969
14 August 2009	0.937
17 August 2009	0.872
18 August 2009	0.896
19 August 2009	0.860
20 August 2009	0.844
21 August 2009	0.951
24 August 2009	0.906
25 August 2009	0.875
26 August 2009	0.871
27 August 2009	0.890
28 August 2009	0.876
31 August 2009	0.830
1 September 2009	0.813
2 September 2009	0.747
3 September 2009	0.772
4 September 2009	0.852
7 September 2009	ND
8 September 2009	0.861
9 September 2009	0.867
10 September 2009	0.769
11 September 2009	0.760
14 September 2009	0.826
15 September 2009	0.865
16 September 2009	0.878
17 September 2009	0.835
18 September 2009	0.897
21 September 2009	0.891
22 September 2009	0.872
23 September 2009	0.860
24 September 2009	0.825
25 September 2009	0.777
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	0.753

29 September 2009	0.753
30 September 2009	0.756
1 October 2009	0.679
2 October 2009	0.696
5 October 2009	0.689
6 October 2009	0.709
7 October 2009	0.644
8 October 2009	0.697
9 October 2009	0.799
12 October 2009	ND
13 October 2009	0.758
14 October 2009	0.833
15 October 2009	0.859
16 October 2009	0.802
19 October 2009	0.788
20 October 2009	0.751
21 October 2009	0.804
22 October 2009	0.825
23 October 2009	0.869
26 October 2009	0.927
27 October 2009	0.846
28 October 2009	0.821
29 October 2009	0.882
30 October 2009	0.792
2 November 2009	0.799
3 November 2009	0.840
4 November 2009	0.889
5 November 2009	0.874
6 November 2009	0.844
9 November 2009	0.827
10 November 2009	0.831
11 November 2009	ND
12 November 2009	0.805
13 November 2009	0.793
16 November 2009	0.712
17 November 2009	0.712
18 November 2009	0.742
19 November 2009	0.735
20 November 2009	0.746
23 November 2009	0.738
24 November 2009	0.692
25 November 2009	0.642
26 November 2009	ND
27 November 2009	0.594
30 November 2009	0.582
1 December 2009	0.627
2 December 2009	0.654
3 December 2009	0.708
4 December 2009	0.768
7 December 2009	0.747
8 December 2009	0.706
9 December 2009	0.729
10 December 2009	0.771
11 December 2009	0.817
14 December 2009	0.824
15 December 2009	0.860
16 December 2009	0.869
17 December 2009	0.792
18 December 2009	0.832
21 December 2009	0.935
22 December 2009	0.981
23 December 2009	0.992
24 December 2009	1.032
25 December 2009	ND
28 December 2009	1.045
29 December 2009	1.025
30 December 2009	1.019
31 December 2009	1.053
Loading [MathJax]/jax/output/HTML-CSS/jax.js	ND

4 January 2010	1.057
5 January 2010	1.003
6 January 2010	1.059
7 January 2010	1.056
8 January 2010	1.049
11 January 2010	1.064
12 January 2010	0.979
13 January 2010	1.024
14 January 2010	0.991
15 January 2010	0.955
18 January 2010	ND
19 January 2010	0.978
20 January 2010	0.937
21 January 2010	0.895
22 January 2010	0.897
25 January 2010	0.923
26 January 2010	0.908
27 January 2010	0.916
28 January 2010	0.928
29 January 2010	0.890
1 February 2010	0.915
2 February 2010	0.897
3 February 2010	0.933
4 February 2010	0.859
5 February 2010	0.826
8 February 2010	0.843
9 February 2010	0.873
10 February 2010	0.914
11 February 2010	0.928
12 February 2010	0.903
15 February 2010	ND
16 February 2010	0.884
17 February 2010	0.943
18 February 2010	0.992
19 February 2010	0.983
22 February 2010	0.999
23 February 2010	0.910
24 February 2010	0.919
25 February 2010	0.875
26 February 2010	0.852
1 March 2010	0.844
2 March 2010	0.844
3 March 2010	0.843
4 March 2010	0.817
5 March 2010	0.873
8 March 2010	0.896
9 March 2010	0.885
10 March 2010	0.902
11 March 2010	0.907
12 March 2010	0.892
15 March 2010	0.895
16 March 2010	0.858
17 March 2010	0.852
18 March 2010	0.876
19 March 2010	0.897
22 March 2010	0.867
23 March 2010	0.873
24 March 2010	0.998
25 March 2010	1.057
26 March 2010	1.024
29 March 2010	1.037
30 March 2010	1.034
31 March 2010	1.012
1 April 2010	1.036
2 April 2010	1.088
5 April 2010	1.123
6 April 2010	1.101
7 April 2010	1.037
Loading [(MathJax)/jax/output/HTML-CSS/jax.js]	1.065

9 April 2010	1.056
12 April 2010	1.019
13 April 2010	0.988
14 April 2010	1.024
15 April 2010	1.007
16 April 2010	0.955
19 April 2010	0.987
20 April 2010	0.985
21 April 2010	0.941
22 April 2010	0.979
23 April 2010	1.002
26 April 2010	0.992
27 April 2010	0.892
28 April 2010	0.965
29 April 2010	0.930
30 April 2010	0.885
3 May 2010	0.904
4 May 2010	0.838
5 May 2010	0.808
6 May 2010	0.702
7 May 2010	0.712
10 May 2010	0.796
11 May 2010	0.793
12 May 2010	0.815
13 May 2010	0.797
14 May 2010	0.713
17 May 2010	0.738
18 May 2010	0.670
19 May 2010	0.660
20 May 2010	0.579
21 May 2010	0.544
24 May 2010	0.571
25 May 2010	0.519
26 May 2010	0.548
27 May 2010	0.657
28 May 2010	0.640
31 May 2010	ND
1 June 2010	0.618
2 June 2010	0.662
3 June 2010	0.690
4 June 2010	0.549
7 June 2010	0.513
8 June 2010	0.525
9 June 2010	0.541
10 June 2010	0.650
11 June 2010	0.580
14 June 2010	0.616
15 June 2010	0.644
16 June 2010	0.607
17 June 2010	0.559
18 June 2010	0.582
21 June 2010	0.598
22 June 2010	0.529
23 June 2010	0.484
24 June 2010	0.490
25 June 2010	0.471
28 June 2010	0.398
29 June 2010	0.348
30 June 2010	0.340
1 July 2010	0.338
2 July 2010	0.372
5 July 2010	ND
6 July 2010	0.328
7 July 2010	0.364
8 July 2010	0.390
9 July 2010	0.421
12 July 2010	0.409
13 July 2010	0.457
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.407

15 July 2010	0.341
16 July 2010	0.293
19 July 2010	0.314
20 July 2010	0.305
21 July 2010	0.251
22 July 2010	0.290
23 July 2010	0.341
26 July 2010	0.345
27 July 2010	0.377
28 July 2010	0.327
29 July 2010	0.307
30 July 2010	0.233
2 August 2010	0.270
3 August 2010	0.203
4 August 2010	0.245
5 August 2010	0.215
6 August 2010	0.152
9 August 2010	0.149
10 August 2010	0.089
11 August 2010	0.041
12 August 2010	0.060
13 August 2010	0.030
16 August 2010	-0.038
17 August 2010	0.012
18 August 2010	0.021
19 August 2010	-0.018
20 August 2010	0.030
23 August 2010	0.005
24 August 2010	-0.072
25 August 2010	-0.034
26 August 2010	-0.068
27 August 2010	0.052
30 August 2010	-0.034
31 August 2010	-0.088
1 September 2010	-0.013
2 September 2010	0.024
3 September 2010	0.096
6 September 2010	ND
7 September 2010	0.017
8 September 2010	0.056
9 September 2010	0.140
10 September 2010	0.175
13 September 2010	0.108
14 September 2010	0.054
15 September 2010	0.094
16 September 2010	0.127
17 September 2010	0.107
20 September 2010	0.073
21 September 2010	-0.014
22 September 2010	-0.050
23 September 2010	-0.042
24 September 2010	0.001
27 September 2010	-0.076
28 September 2010	-0.130
29 September 2010	-0.099
30 September 2010	-0.089
1 October 2010	-0.089
4 October 2010	-0.123
5 October 2010	-0.139
6 October 2010	-0.196
7 October 2010	-0.197
8 October 2010	-0.207
11 October 2010	ND
12 October 2010	-0.192
13 October 2010	-0.191
14 October 2010	-0.145
15 October 2010	-0.092
18 October 2010	-0.164
Loading [MathJax]/jax/output/HTML-CSS/jax.js	-0.186

20 October 2010	-0.180
21 October 2010	-0.126
22 October 2010	-0.108
25 October 2010	-0.102
26 October 2010	-0.033
27 October 2010	0.035
28 October 2010	-0.034
29 October 2010	-0.086
1 November 2010	-0.073
2 November 2010	-0.105
3 November 2010	-0.116
4 November 2010	-0.238
5 November 2010	-0.204
8 November 2010	-0.198
9 November 2010	-0.095
10 November 2010	-0.140
11 November 2010	ND
12 November 2010	-0.047
15 November 2010	0.099
16 November 2010	0.068
17 November 2010	0.102
18 November 2010	0.129
19 November 2010	0.122
22 November 2010	0.054
23 November 2010	0.031
24 November 2010	0.157
25 November 2010	ND
26 November 2010	0.120
29 November 2010	0.097
30 November 2010	0.084
1 December 2010	0.219
2 December 2010	0.256
3 December 2010	0.271
6 December 2010	0.199
7 December 2010	0.382
8 December 2010	0.470
9 December 2010	0.480
10 December 2010	0.560
13 December 2010	0.516
14 December 2010	0.678
15 December 2010	0.706
16 December 2010	0.648
17 December 2010	0.555
20 December 2010	0.566
21 December 2010	0.556
22 December 2010	0.573
23 December 2010	0.621
24 December 2010	ND
27 December 2010	0.578
28 December 2010	0.682
29 December 2010	0.576
30 December 2010	0.600
31 December 2010	0.553
3 January 2011	0.582
4 January 2011	0.572
5 January 2011	0.675
6 January 2011	0.625
7 January 2011	0.547
10 January 2011	0.520
11 January 2011	0.562
12 January 2011	0.561
13 January 2011	0.512
14 January 2011	0.529
17 January 2011	ND
18 January 2011	0.557
19 January 2011	0.546
20 January 2011	0.632
21 January 2011	0.608
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.594

25 January 2011	0.535
26 January 2011	0.603
27 January 2011	0.583
28 January 2011	0.532
31 January 2011	0.571
1 February 2011	0.620
2 February 2011	0.657
3 February 2011	0.714
4 February 2011	0.798
7 February 2011	0.806
8 February 2011	0.869
9 February 2011	0.825
10 February 2011	0.864
11 February 2011	0.823
14 February 2011	0.809
15 February 2011	0.803
16 February 2011	0.809
17 February 2011	0.782
18 February 2011	0.790
21 February 2011	ND
22 February 2011	0.677
23 February 2011	0.706
24 February 2011	0.686
25 February 2011	0.658
28 February 2011	0.651
1 March 2011	0.647
2 March 2011	0.685
3 March 2011	0.774
4 March 2011	0.708
7 March 2011	0.719
8 March 2011	0.748
9 March 2011	0.687
10 March 2011	0.604
11 March 2011	0.626
14 March 2011	0.583
15 March 2011	0.556
16 March 2011	0.461
17 March 2011	0.482
18 March 2011	0.526
21 March 2011	0.571
22 March 2011	0.581
23 March 2011	0.599
24 March 2011	0.657
25 March 2011	0.684
28 March 2011	0.698
29 March 2011	0.718
30 March 2011	0.692
31 March 2011	0.716
1 April 2011	0.710
4 April 2011	0.697
5 April 2011	0.740
6 April 2011	0.785
7 April 2011	0.799
8 April 2011	0.810
11 April 2011	0.803
12 April 2011	0.746
13 April 2011	0.723
14 April 2011	0.731
15 April 2011	0.680
18 April 2011	0.650
19 April 2011	0.643
20 April 2011	0.686
21 April 2011	0.674
22 April 2011	ND
25 April 2011	0.642
26 April 2011	0.604
27 April 2011	0.630
28 April 2011	0.590
Loading [MathJax]/jax/output/HTML-CSS/jax.js	0.565

2 May 2011	0.561
3 May 2011	0.542
4 May 2011	0.526
5 May 2011	0.465
6 May 2011	0.468
9 May 2011	0.449
10 May 2011	0.493
11 May 2011	0.468
12 May 2011	0.489
13 May 2011	0.455
16 May 2011	0.432
17 May 2011	0.406
18 May 2011	0.448
19 May 2011	0.444
20 May 2011	0.424
23 May 2011	0.395
24 May 2011	0.389
25 May 2011	0.393
26 May 2011	0.336
27 May 2011	0.336
30 May 2011	ND
31 May 2011	0.313
1 June 2011	0.230
2 June 2011	0.277
3 June 2011	0.239
6 June 2011	0.240
7 June 2011	0.251
8 June 2011	0.199
9 June 2011	0.248
10 June 2011	0.229
13 June 2011	0.245
14 June 2011	0.334
15 June 2011	0.218
16 June 2011	0.176
17 June 2011	0.193
20 June 2011	0.210
21 June 2011	0.234
22 June 2011	0.246
23 June 2011	0.175
24 June 2011	0.122
27 June 2011	0.162
28 June 2011	0.263
29 June 2011	0.351
30 June 2011	0.407
1 July 2011	0.445
4 July 2011	ND
5 July 2011	0.385
6 July 2011	0.349
7 July 2011	0.396
8 July 2011	0.277
11 July 2011	0.204
12 July 2011	0.185
13 July 2011	0.164
14 July 2011	0.213
15 July 2011	0.175
18 July 2011	0.165
19 July 2011	0.140
20 July 2011	0.183
21 July 2011	0.247
22 July 2011	0.208
25 July 2011	0.227
26 July 2011	0.189
27 July 2011	0.198
28 July 2011	0.176
29 July 2011	0.032
1 August 2011	-0.002
2 August 2011	-0.071
3 August 2011	-0.074
Loading [MathJax]/jax/output/HTML-CSS/jax.js	-0.142

5 August 2011	-0.083
8 August 2011	-0.206
9 August 2011	-0.386
10 August 2011	-0.392
11 August 2011	-0.261
12 August 2011	-0.342
15 August 2011	-0.309
16 August 2011	-0.354
17 August 2011	-0.402
18 August 2011	-0.450
19 August 2011	-0.449
22 August 2011	-0.418
23 August 2011	-0.393
24 August 2011	-0.281
25 August 2011	-0.336
26 August 2011	-0.369
29 August 2011	-0.305
30 August 2011	-0.379
31 August 2011	-0.343
1 September 2011	-0.404
2 September 2011	-0.492
5 September 2011	ND
6 September 2011	-0.504
7 September 2011	-0.450
8 September 2011	-0.489
9 September 2011	-0.542
12 September 2011	-0.520
13 September 2011	-0.479
14 September 2011	-0.448
15 September 2011	-0.390
16 September 2011	-0.394
19 September 2011	-0.484
20 September 2011	-0.490
21 September 2011	-0.531
22 September 2011	-0.645
23 September 2011	-0.542
26 September 2011	-0.490
27 September 2011	-0.425
28 September 2011	-0.416
29 September 2011	-0.439
30 September 2011	-0.479
3 October 2011	-0.570
4 October 2011	-0.553
5 October 2011	-0.469
6 October 2011	-0.405
7 October 2011	-0.335
10 October 2011	ND
11 October 2011	-0.277
12 October 2011	-0.232
13 October 2011	-0.281
14 October 2011	-0.239
17 October 2011	-0.299
18 October 2011	-0.300
19 October 2011	-0.319
20 October 2011	-0.299
21 October 2011	-0.280
24 October 2011	-0.259
25 October 2011	-0.353
26 October 2011	-0.281
27 October 2011	-0.142
28 October 2011	-0.212
31 October 2011	-0.346
1 November 2011	-0.463
2 November 2011	-0.457
3 November 2011	-0.416
4 November 2011	-0.442
7 November 2011	-0.461
8 November 2011	-0.408
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10 November 2011	-0.440
11 November 2011	ND
14 November 2011	-0.442
15 November 2011	-0.429
16 November 2011	-0.466
17 November 2011	-0.501
18 November 2011	-0.446
21 November 2011	-0.474
22 November 2011	-0.490
23 November 2011	-0.539
24 November 2011	ND
25 November 2011	-0.475
28 November 2011	-0.478
29 November 2011	-0.453
30 November 2011	-0.399
1 December 2011	-0.388
2 December 2011	-0.437
5 December 2011	-0.438
6 December 2011	-0.410
7 December 2011	-0.462
8 December 2011	-0.496
9 December 2011	-0.437
12 December 2011	-0.465
13 December 2011	-0.512
14 December 2011	-0.536
15 December 2011	-0.528
16 December 2011	-0.574
19 December 2011	-0.601
20 December 2011	-0.514
21 December 2011	-0.486
22 December 2011	-0.488
23 December 2011	-0.436
26 December 2011	ND
27 December 2011	-0.437
28 December 2011	-0.502
29 December 2011	-0.525
30 December 2011	-0.545
2 January 2012	ND
3 January 2012	-0.491
4 January 2012	-0.474
5 January 2012	-0.475
6 January 2012	-0.498
9 January 2012	-0.508
10 January 2012	-0.490
11 January 2012	-0.540
12 January 2012	-0.526
13 January 2012	-0.572
16 January 2012	ND
17 January 2012	-0.584
18 January 2012	-0.556
19 January 2012	-0.489
20 January 2012	-0.455
23 January 2012	-0.426
24 January 2012	-0.439
25 January 2012	-0.517
26 January 2012	-0.565
27 January 2012	-0.590
30 January 2012	-0.627
31 January 2012	-0.660
1 February 2012	-0.635
2 February 2012	-0.657
3 February 2012	-0.576
6 February 2012	-0.606
7 February 2012	-0.547
8 February 2012	-0.546
9 February 2012	-0.518
10 February 2012	-0.576
13 February 2012	-0.552
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15 February 2012	-0.589
16 February 2012	-0.538
17 February 2012	-0.518
20 February 2012	ND
21 February 2012	-0.487
22 February 2012	-0.524
23 February 2012	-0.543
24 February 2012	-0.537
27 February 2012	-0.582
28 February 2012	-0.577
29 February 2012	-0.544
1 March 2012	-0.501
2 March 2012	-0.543
5 March 2012	-0.529
6 March 2012	-0.566
7 March 2012	-0.552
8 March 2012	-0.515
9 March 2012	-0.502
12 March 2012	-0.505
13 March 2012	-0.429
14 March 2012	-0.300
15 March 2012	-0.305
16 March 2012	-0.279
19 March 2012	-0.215
20 March 2012	-0.213
21 March 2012	-0.269
22 March 2012	-0.283
23 March 2012	-0.313
26 March 2012	-0.316
27 March 2012	-0.369
28 March 2012	-0.359
29 March 2012	-0.394
30 March 2012	-0.352
2 April 2012	-0.365
3 April 2012	-0.303
4 April 2012	-0.345
5 April 2012	-0.390
6 April 2012	-0.501
9 April 2012	-0.508
10 April 2012	-0.545
11 April 2012	-0.514
12 April 2012	-0.484
13 April 2012	-0.529
16 April 2012	-0.548
17 April 2012	-0.515
18 April 2012	-0.535
19 April 2012	-0.548
20 April 2012	-0.539
23 April 2012	-0.567
24 April 2012	-0.541
25 April 2012	-0.533
26 April 2012	-0.562
27 April 2012	-0.571
30 April 2012	-0.582
1 May 2012	-0.561
2 May 2012	-0.582
3 May 2012	-0.575
4 May 2012	-0.616
7 May 2012	-0.610
8 May 2012	-0.638
9 May 2012	-0.645
10 May 2012	-0.623
11 May 2012	-0.658
14 May 2012	-0.696
15 May 2012	-0.702
16 May 2012	-0.698
17 May 2012	-0.732
18 May 2012	-0.723
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22 May 2012	-0.675
23 May 2012	-0.711
24 May 2012	-0.678
25 May 2012	-0.696
28 May 2012	ND
29 May 2012	-0.701
30 May 2012	-0.776
31 May 2012	-0.806
1 June 2012	-0.883
4 June 2012	-0.819
5 June 2012	-0.795
6 June 2012	-0.738
7 June 2012	-0.743
8 June 2012	-0.755
11 June 2012	-0.788
12 June 2012	-0.735
13 June 2012	-0.785
14 June 2012	-0.752
15 June 2012	-0.788
18 June 2012	-0.790
19 June 2012	-0.758
20 June 2012	-0.743
21 June 2012	-0.758
22 June 2012	-0.714
25 June 2012	-0.764
26 June 2012	-0.744
27 June 2012	-0.757
28 June 2012	-0.801
29 June 2012	-0.751
2 July 2012	-0.810
3 July 2012	-0.772
4 July 2012	ND
5 July 2012	-0.794
6 July 2012	-0.823
9 July 2012	-0.849
10 July 2012	-0.851
11 July 2012	-0.846
12 July 2012	-0.860
13 July 2012	-0.849
16 July 2012	-0.867
17 July 2012	-0.848
18 July 2012	-0.858
19 July 2012	-0.840
20 July 2012	-0.877
23 July 2012	-0.893
24 July 2012	-0.916
25 July 2012	-0.917
26 July 2012	-0.897
27 July 2012	-0.811
30 July 2012	-0.848
31 July 2012	-0.861
1 August 2012	-0.817
2 August 2012	-0.859
3 August 2012	-0.786
6 August 2012	-0.802
7 August 2012	-0.744
8 August 2012	-0.735
9 August 2012	-0.728
10 August 2012	-0.753
13 August 2012	-0.757
14 August 2012	-0.701
15 August 2012	-0.644
16 August 2012	-0.614
17 August 2012	-0.631
20 August 2012	-0.633
21 August 2012	-0.645
22 August 2012	-0.720
23 August 2012	-0.744
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27 August 2012	-0.765
28 August 2012	-0.773
29 August 2012	-0.760
30 August 2012	-0.784
31 August 2012	-0.839
3 September 2012	ND
4 September 2012	-0.819
5 September 2012	-0.815
6 September 2012	-0.755
7 September 2012	-0.777
10 September 2012	-0.767
11 September 2012	-0.756
12 September 2012	-0.706
13 September 2012	-0.744
14 September 2012	-0.648
17 September 2012	-0.665
18 September 2012	-0.690
19 September 2012	-0.708
20 September 2012	-0.707
21 September 2012	-0.728
24 September 2012	-0.753
25 September 2012	-0.779
26 September 2012	-0.823
27 September 2012	-0.807
28 September 2012	-0.812
1 October 2012	-0.817
2 October 2012	-0.821
3 October 2012	-0.828
4 October 2012	-0.789
5 October 2012	-0.747
8 October 2012	ND
9 October 2012	-0.758
10 October 2012	-0.774
11 October 2012	-0.777
12 October 2012	-0.780
15 October 2012	-0.777
16 October 2012	-0.738
17 October 2012	-0.664
18 October 2012	-0.643
19 October 2012	-0.685
22 October 2012	-0.655
23 October 2012	-0.687
24 October 2012	-0.684
25 October 2012	-0.631
26 October 2012	-0.693
29 October 2012	-0.725
30 October 2012	ND
31 October 2012	-0.737
1 November 2012	-0.721
2 November 2012	-0.721
5 November 2012	-0.745
6 November 2012	-0.696
7 November 2012	-0.781
8 November 2012	-0.816
9 November 2012	-0.815
12 November 2012	ND
13 November 2012	-0.834
14 November 2012	-0.827
15 November 2012	-0.834
16 November 2012	-0.835
19 November 2012	-0.811
20 November 2012	-0.777
21 November 2012	-0.756
22 November 2012	ND
23 November 2012	-0.749
26 November 2012	-0.776
27 November 2012	-0.793
28 November 2012	-0.810
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30 November 2012	-0.819
3 December 2012	-0.810
4 December 2012	-0.819
5 December 2012	-0.836
6 December 2012	-0.846
7 December 2012	-0.813

Note: Term premia are estimated by a three-factor term structure model combining Treasury yields with SPF interest rate forecasts.

Source: Board.

## Bottom-right panel Corporate Bond Yields

Monthly  
Percent

Period	Ten-year High-Yield	Ten-year BBB
January 1997	9.85	7.44
February 1997	9.58	7.27
March 1997	9.71	7.52
April 1997	9.87	7.72
May 1997	9.55	7.56
June 1997	9.40	7.34
July 1997	9.23	7.07
August 1997	9.15	7.14
September 1997	9.10	7.05
October 1997	8.96	6.89
November 1997	9.06	6.84
December 1997	8.98	6.80
January 1998	8.90	6.56
February 1998	8.87	6.66
March 1998	8.88	6.74
April 1998	8.87	6.72
May 1998	9.02	6.74
June 1998	9.18	6.60
July 1998	9.26	6.61
August 1998	9.62	6.64
September 1998	10.33	6.61
October 1998	10.70	6.50
November 1998	10.36	6.86
December 1998	10.10	6.58
January 1999	10.13	6.64
February 1999	10.16	6.79
March 1999	10.24	6.96
April 1999	9.98	6.85
May 1999	10.23	7.16
June 1999	10.56	7.59
July 1999	10.56	7.52
August 1999	10.73	7.77
September 1999	10.86	7.84
October 1999	10.99	7.98
November 1999	10.90	7.83
December 1999	10.75	8.01
January 2000	11.02	8.29
February 2000	11.14	8.19
March 2000	11.55	8.13
April 2000	11.82	8.14
May 2000	12.05	8.76
June 2000	12.02	8.43
July 2000	12.02	8.27
August 2000	12.05	8.09
September 2000	11.86	8.08
October 2000	12.45	8.03
November 2000	12.99	8.01
December 2000	13.18	7.68
January 2001	12.33	7.55
February 2001	11.61	7.45
March 2001	11.63	7.31
April 2001	12.17	7.52
June 2001	11.85	7.54
June 2001	11.85	7.41

July 2001	11.88	7.41
August 2001	11.56	7.18
September 2001	11.94	7.19
October 2001	11.93	7.04
November 2001	11.08	7.11
December 2001	11.12	7.42
January 2002	10.93	7.43
February 2002	11.00	7.54
March 2002	10.62	7.79
April 2002	10.60	7.69
May 2002	10.54	7.73
June 2002	11.05	7.40
July 2002	11.43	7.50
August 2002	11.72	7.34
September 2002	11.49	6.97
October 2002	12.13	7.31
November 2002	11.39	7.05
December 2002	11.08	6.76
January 2003	10.43	6.63
February 2003	10.45	6.47
March 2003	10.14	6.30
April 2003	9.51	6.15
May 2003	9.02	5.55
June 2003	8.71	5.26
July 2003	8.78	5.79
August 2003	9.26	6.29
September 2003	8.72	5.99
October 2003	8.44	5.92
November 2003	8.28	5.85
December 2003	7.97	5.75
January 2004	7.65	5.54
February 2004	7.86	5.52
March 2004	7.84	5.31
April 2004	7.99	5.79
May 2004	8.51	6.23
June 2004	8.47	6.24
July 2004	8.23	5.99
August 2004	8.11	5.78
September 2004	7.85	5.54
October 2004	7.71	5.46
November 2004	7.46	5.46
December 2004	7.41	5.41
January 2005	7.46	5.38
February 2005	7.31	5.27
March 2005	7.49	5.62
April 2005	7.91	5.61
May 2005	8.27	5.47
June 2005	7.92	5.30
July 2005	7.77	5.45
August 2005	7.76	5.50
September 2005	7.89	5.50
October 2005	8.20	5.81
November 2005	8.35	5.94
December 2005	8.32	5.89
January 2006	8.20	5.83
February 2006	8.17	5.95
March 2006	8.17	6.10
April 2006	8.23	6.37
May 2006	8.31	6.47
June 2006	8.59	6.59
July 2006	8.69	6.62
August 2006	8.61	6.41
September 2006	8.51	6.27
October 2006	8.39	6.26
November 2006	8.27	6.07
December 2006	8.21	6.03
January 2007	8.21	6.20
February 2007	8.05	6.11
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April 2007	8.03	6.15
May 2007	7.93	6.18
June 2007	8.21	6.56
July 2007	8.74	6.58
August 2007	9.08	6.56
September 2007	8.88	6.46
October 2007	8.64	6.36
November 2007	9.09	6.27
December 2007	9.28	6.47
January 2008	9.79	6.33
February 2008	10.05	6.59
March 2008	10.31	6.70
April 2008	10.02	6.81
May 2008	9.72	6.77
June 2008	9.95	6.95
July 2008	10.43	7.11
August 2008	10.56	7.15
September 2008	10.99	7.33
October 2008	14.85	9.11
November 2008	16.59	9.70
December 2008	17.47	9.41
January 2009	14.95	9.05
February 2009	14.40	8.82
March 2009	15.86	9.00
April 2009	13.50	8.70
May 2009	13.12	8.06
June 2009	12.21	7.71
July 2009	11.65	7.20
August 2009	10.77	6.66
September 2009	10.17	6.39
October 2009	9.63	6.21
November 2009	9.47	6.13
December 2009	9.28	6.06
January 2010	8.69	5.78
February 2010	8.92	5.84
March 2010	8.66	5.73
April 2010	8.37	5.64
May 2010	8.76	5.47
June 2010	8.98	5.55
July 2010	8.55	5.30
August 2010	8.24	4.97
September 2010	8.03	4.95
October 2010	7.58	4.75
November 2010	7.56	4.91
December 2010	7.78	5.42
January 2011	7.57	5.38
February 2011	7.44	5.48
March 2011	7.45	5.34
April 2011	7.36	5.33
May 2011	7.27	5.08
June 2011	7.53	5.05
July 2011	7.43	5.04
August 2011	7.99	4.71
September 2011	8.25	4.89
October 2011	8.39	5.20
November 2011	8.06	4.84
December 2011	7.96	4.90
January 2012	7.49	4.80
February 2012	7.20	4.63
March 2012	7.22	4.66
April 2012	7.29	4.60
May 2012	7.30	4.49
June 2012	7.48	4.48
July 2012	7.12	4.23
August 2012	6.95	4.20
September 2012	6.70	4.11
October 2012	6.61	3.89
November 2012	6.62	3.85
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Note: Staff estimates of smooth yield curves based on Merrill Lynch bond data.

## Exhibit 2 Developments in Business Finance

### Top-left panel Gross Nonfinancial Corporate Bond Issuance

Monthly Rate  
Billions of dollars

Period	Speculative Grade	Investment Grade	Total
1998	9.13	14.74	23.87
1999	6.86	15.96	22.82
2000	3.85	16.01	19.86
2001	7.96	28.98	36.94
2002	5.09	18.35	23.44
2003	10.90	16.97	27.87
2004	10.62	10.19	20.81
2005	6.79	9.46	16.25
2006	10.07	15.87	25.94
2007	9.76	20.09	29.85
2008	2.88	22.47	25.35
2009	10.32	28.42	38.74
2010	17.41	21.65	39.06
2011	12.80	25.54	38.34
2012:H1	15.60	28.01	43.61
2012:Q3	23.40	33.05	56.45
October 2012	31.30	25.61	56.91
November 2012	19.86	74.05	93.91

Source: Thomson Financial.

### Top-right panel Use of Proceeds for HY Issues

Monthly Rate  
Billions of dollars

Period	Recapitalization/Dividends	Refinancing	LBO	M&A	Other	Total
2005	0.58	3.33	1.42	1.05	0.56	6.94
2006	0.62	3.89	2.59	2.57	0.93	10.61
2007	0.52	3.35	3.58	2.17	0.96	10.58
2008	0.11	2.52	1.64	0.25	0.26	4.79
2009	0.59	10.09	0.00	0.71	1.39	12.77
2010	1.37	13.28	0.97	2.97	1.82	20.40
2011	1.81	8.63	1.27	2.79	1.48	15.98
2012:Q1	2.57	16.35	1.42	3.01	3.60	26.95
2012:Q2	1.29	7.93	1.33	2.89	0.94	14.38
2012:Q3	0.93	18.37	1.09	4.05	3.06	27.49
October 2012	4.69	16.38	1.40	6.55	1.82	30.85

Note: October 2012 values are approximate.

Source: Standard and Poors.

### Middle-left panel Institutional Issuance of Leveraged Loans

Monthly Rate  
Billions of dollars

Period	Refinancings	New money	Total
1998	3.74	0.00	3.74
1999	4.61	0.00	4.61
2000	4.17	0.00	4.17
2001	2.66	0.00	2.66
2002	5.31	2.95	8.27
2003	5.80	4.06	9.87
2004	9.77	8.85	18.62
2005	8.39	11.69	20.08
Loading [MathJax]/jax/output/HTML-CSS/jax.js	7.67	22.84	30.51

2007	9.23	26.26	35.48
2008	0.84	4.96	5.80
2009	2.67	2.03	4.69
2010	8.53	8.69	17.22
2011	19.90	2.33	22.22
2012:Q1	14.39	8.30	22.69
2012:Q2	14.48	9.90	24.37
2012:Q3	8.40	9.33	17.73
October 2012	ND	ND	59.47
November 2012	ND	ND	36.07

Note: October and November 2012 values are approximate.

Source: Thomson Reuters LPC LoanConnector.

## Middle-right panel Covenant-lite Issuance

Monthly Rate

Period	Billions of dollars
2005:Q1	0.02
2005:Q2	0.50
2005:Q3	0.00
2005:Q4	0.02
2006:Q1	1.71
2006:Q2	1.85
2006:Q3	1.52
2006:Q4	2.49
2007:Q1	14.08
2007:Q2	15.97
2007:Q3	5.46
2007:Q4	0.44
2008:Q1	0.00
2008:Q2	0.00
2008:Q3	1.26
2008:Q4	0.00
2009:Q1	0.00
2009:Q2	0.00
2009:Q3	0.00
2009:Q4	0.28
2010:Q1	0.63
2010:Q2	0.17
2010:Q3	0.23
2010:Q4	1.21
2011:Q1	7.31
2011:Q2	6.06
2011:Q3	3.08
2011:Q4	1.02
2012:Q1	1.87
2012:Q2	5.87
2012:Q3	3.78

Source: LPC LoanConnector.

## Bottom panel Summary

- Developments to date may not signal a notable increase in systemic risk.
  - Increased demand for corporate credits reflects, in part, interest on the part of long-term investors.
  - Dealers appear to be better managing the pipeline of deals.
  - Market participants continue to characterize conditions as significantly tighter than in 2006 and 2007.
- Some situations bear watching.
  - Potential for a disorderly deleveraging could rise if available borrowing capacity were taken up quickly.
  - Reversal of inflows into corporate bond and loan funds could strain these markets.
  - Some institutions could "reach for yield" in new and difficult-to-detect ways.
- Overall, low interest rates may be contributing to some increase in willingness to bear risk.

## Appendix 5: Materials used by Ms. Roush

Material for Briefing on the  
**Summary of Economic Projections**

Jennifer E. Roush  
 December 11, 2012

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

**Exhibit 1. Central tendencies and ranges of economic projections, 2012-15 and over the longer run**

**Change in real GDP**

Percent

	2007	2008	2009	2010	2011	2012	2013	2014	2015	Longer run
<b>Actual</b>	2.2	-3.3	-0.1	2.4	2.0	-	-	-	-	-
<b>Upper End of Range</b>	-	-	-	-	-	2.0	3.2	4.0	4.2	3.0
<b>Upper End of Central Tendency</b>	-	-	-	-	-	1.8	3.0	3.5	3.7	2.5
<b>Lower End of Central Tendency</b>	-	-	-	-	-	1.7	2.3	3.0	3.0	2.3
<b>Lower End of Range</b>	-	-	-	-	-	1.6	2.0	2.8	2.5	2.2

**Unemployment rate**

Percent

	2007	2008	2009	2010	2011	2012	2013	2014	2015	Longer run
<b>Actual</b>	4.8	6.9	9.9	9.6	8.7	-	-	-	-	-
<b>Upper End of Range</b>	-	-	-	-	-	8.0	7.8	7.4	6.8	6.0
<b>Upper End of Central Tendency</b>	-	-	-	-	-	7.9	7.7	7.3	6.6	6.0
<b>Lower End of Central Tendency</b>	-	-	-	-	-	7.8	7.4	6.8	6.0	5.2
<b>Lower End of Range</b>	-	-	-	-	-	7.7	6.9	6.1	5.7	5.0

**PCE inflation**

Percent

	2007	2008	2009	2010	2011	2012	2013	2014	2015	Longer run
<b>Actual</b>	3.5	1.7	1.4	1.5	2.5	-	-	-	-	-
<b>Upper End of Range</b>	-	-	-	-	-	1.8	2.0	2.2	2.2	2.0
<b>Upper End of Central Tendency</b>	-	-	-	-	-	1.7	2.0	2.0	2.0	2.0
<b>Lower End of Central Tendency</b>	-	-	-	-	-	1.6	1.3	1.5	1.7	2.0
<b>Lower End of Range</b>	-	-	-	-	-	1.6	1.3	1.4	1.5	2.0

**Core PCE inflation**

Percent

	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Actual</b>	2.4	2.0	1.6	1.2	1.7	-	-	-	-
<b>Upper End of Range</b>	-	-	-	-	-	1.8	2.0	2.0	2.2
<b>Upper End of Central Tendency</b>	-	-	-	-	-	1.7	1.9	2.0	2.0
<b>Lower End of Central Tendency</b>	-	-	-	-	-	1.6	1.6	1.6	1.8
<b>Lower End of Range</b>	-	-	-	-	-	1.6	1.5	1.5	1.7

Note: The data for the actual values of the variables are annual.

**Exhibit 2. Economic projections for 2013-2015 and over the longer run (percent)**

**Change in real GDP**

	2013	2014	2015	Longer run
<b>Central Tendency</b>	2.3 to 3.0	3.0 to 3.5	3.0 to 3.7	2.3 to 2.5
<i>September projections</i>	2.5 to 3.0	3.0 to 3.8	3.0 to 3.8	2.3 to 2.5
<b>Range</b>	2.0 to 3.2	2.8 to 4.0	2.5 to 4.2	2.2 to 3.0
<i>September projections</i>	2.3 to 3.5	2.7 to 4.1	2.5 to 4.2	2.2 to 3.0
<b>Memo: Tealbook</b>	2.5	3.2	3.6	2.5
<i>September Tealbook</i>	2.4	3.2	3.6	2.5

**Unemployment rate**

	2013	2014	2015	Longer run
<b>Central Tendency</b>	7.4 to 7.7	6.8 to 7.3	6.0 to 6.6	5.2 to 6.0
<i>September projections</i>	7.6 to 7.9	6.7 to 7.3	6.0 to 6.8	5.2 to 6.0

<b>Range</b>	6.9 to 7.8	6.1 to 7.4	5.7 to 6.8	5.0 to 6.0
<i>September projections</i>	7.0 to 8.0	6.3 to 7.5	5.7 to 6.9	5.0 to 6.3
<b>Memo: Tealbook</b>	7.8	7.4	6.5	5.2
<i>September Tealbook</i>	8.0	7.6	6.7	5.2

## PCE inflation

	2013	2014	2015	Longer run
<b>Central Tendency</b>	1.3 to 2.0	1.5 to 2.0	1.7 to 2.0	2.0 to 2.0
<i>September projections</i>	1.6 to 2.0	1.6 to 2.0	1.8 to 2.0	2.0 to 2.0
<b>Range</b>	1.3 to 2.0	1.4 to 2.2	1.5 to 2.2	2.0 to 2.0
<i>September projections</i>	1.5 to 2.1	1.6 to 2.2	1.8 to 2.3	2.0 to 2.0
<b>Memo: Tealbook</b>	1.3	1.4	1.5	2.0
<i>September Tealbook</i>	1.4	1.4	1.5	2.0

## Core PCE inflation

	2013	2014	2015
<b>Central Tendency</b>	1.6 to 1.9	1.6 to 2.0	1.8 to 2.0
<i>September projections</i>	1.7 to 2.0	1.8 to 2.0	1.9 to 2.0
<b>Range</b>	1.5 to 2.0	1.5 to 2.0	1.7 to 2.2
<i>September projections</i>	1.6 to 2.0	1.6 to 2.2	1.8 to 2.3
<b>Memo: Tealbook</b>	1.6	1.6	1.7
<i>September Tealbook</i>	1.6	1.6	1.7

Note: The changes in real GDP and inflation are measured Q4/Q4.

## Exhibit 3. Overview of FOMC participants' assessments of appropriate monetary policy

### Appropriate timing of policy firming

Number of participants

	2012	2013	2014	2015	2016
December projections	0	2	3	13	1
September projections	1	3	2	12	1

Note: In the upper panel, the height of each bar denotes the number of FOMC participants who judge that, under appropriate monetary policy, the first increase in the target federal funds rate from its current range of 0 to 1/4 percent will occur in the specified calendar year.

### Appropriate pace of policy firming

Number of participants with projected targets

Target federal funds rate at year-end (December projections, percent)	2012	2013	2014	2015	Longer run
0.00 - 0.37	19	17	14	1	
0.38 - 0.62		1	1	5	
0.63 - 0.87				3	
0.88 - 1.12		1		3	
1.13 - 1.37				2	
1.38 - 1.62			2		
1.63 - 1.87			1		
1.88 - 2.12				1	
2.13 - 2.37					
2.38 - 2.62				1	
2.63 - 2.87			1		
2.88 - 3.12					1
3.13 - 3.37					
3.38 - 3.62				1	1
3.63 - 3.87				1	3
3.88 - 4.12					5
4.13 - 4.37					6
4.38 - 4.62				1	3

Note: In the middle panel, each circle indicates the value (rounded to the nearest 1/4 percentage point) of an individual participant's judgment of the appropriate level of the target federal funds rate at the end of the specified calendar year or over the longer run.

### Appropriate pace of policy firming

Number of participants with projected targets

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Target federal funds rate at year-end (September projections, percent)	2012	2013	2014	2015	Longer run
0.00 - 0.37	18	15	13	1	
0.38 - 0.62	1	2		2	
0.63 - 0.87		1		3	
0.88 - 1.12				4	
1.13 - 1.37					
1.38 - 1.62			2	3	
1.63 - 1.87		1	2		
1.88 - 2.12					
2.13 - 2.37					
2.38 - 2.62			1	2	
2.63 - 2.87					
2.88 - 3.12			1		1
3.13 - 3.37					
3.38 - 3.62				1	1
3.63 - 3.87				1	2
3.88 - 4.12				1	6
4.13 - 4.37					5
4.38 - 4.62				1	4

Note: In the lower panel, each circle indicates the value (rounded to the nearest 1/4 percentage point) of an individual participant's judgment of the appropriate level of the target federal funds rate at the end of the specified calendar year or over the longer run.

## Exhibit 4. Scatterplot of unemployment and PCE inflation rates in the initial year of policy firming (in percent)

Projections

Year of Firming	Unemployment Rate	PCE inflation
2013	6.9	2.0
2013	7.4	2.0
2014	6.1	2.0
2014	7.0	2.0
2014	7.3	2.0
2015	5.7	2.0
2015	6.0	1.6
2015	6.0	2.2
2015	6.1	1.9
2015	6.2	1.6
2015	6.2	1.7
2015	6.3	1.7
2015	6.3	2.0
2015	6.5	1.5
2015	6.5	1.9
2015	6.5	1.9
2015	6.7	1.8
2015	6.8	2.2
2016	5.5	2.2

Note: 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 5. Uncertainty and risks in economic projections

Histograms, eight panels.

### Uncertainty about GDP growth

Number of participants

	Lower	Broadly similar	Higher
December projections	0	1	18
September projections	0	2	17

### Uncertainty about the unemployment rate

Number of participants

Loading [MathJax]/jax/output/HTML-CSS/jax.js	Lower	Broadly similar	Higher

December projections	0	2	17
September projections	0	2	17

### Uncertainty about PCE inflation

Number of participants

	Lower	Broadly similar	Higher
December projections	2	10	7
September projections	1	10	8

### Uncertainty about core PCE inflation

Number of participants

	Lower	Broadly similar	Higher
December projections	2	10	7
September projections	2	9	8

### Risks to GDP growth

Number of participants

	Weighted to downside	Broadly balanced	Weighted to upside
December projections	13	6	0
September projections	14	5	0

### Risks to the unemployment rate

Number of participants

	Weighted to downside	Broadly balanced	Weighted to upside
December projections	0	6	13
September projections	0	6	13

### Risks to PCE inflation

Number of participants

	Weighted to downside	Broadly balanced	Weighted to upside
December projections	3	14	2
September projections	4	12	3

### Risks to core PCE inflation

Number of participants

	Weighted to downside	Broadly balanced	Weighted to upside
December projections	3	14	2
September projections	4	12	3

## Appendix 6: Materials used by Chairman Bernanke

Benefit-cost analysis

$B(E, \pi)$ ,  $C(x)$  benefits and costs depend on the size of the balance sheet ( $x$ )

$E = ex + g$  employment depends on size of balance sheet plus other factors ( $g$ )—suppressing the funds rate

We are likely to learn more about benefits, costs, efficacy, and other factors as  $x$  increases

Optimality (ex post)

$B'(ex^* + g)e = C'(x^*)$  suppressing the inflation term (assume in region where more stimulus is helpful; infl expectations captured in  $C$ )

$E^* = ex^* + g$ ,  $\frac{dx}{dg} < 0$ ,  $\frac{dx}{de} > 0$  if  $e$  small, otherwise negative

Evaluating benefits and costs at beginning of program

Benefits

1. Forecast-based; unemployment and inflation miss in same direction through 2015
2. Efficacy assessment

Costs

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2. Fiscal/capital gains and losses

3. Exit (balance sheet normalization)
4. Financial stability

Exiting from the program: Rhetoric should focus on ongoing evaluation of efficacy and costs

Case 1. Seeing progress

- a. Because  $e$  is higher: "income effect" ( - ) versus "substitution effect" ( + )
- b. Because  $g$  is higher: can do less than expected, partially offsetting increase in  $g$

Case 2. Limited progress, no identifiable exogenous factor

Presumption that  $e$  is low, costs of program increasing  
Efficacy, cost language sets predicate for ultimate winddown with  $E^*$  still low

Case 3. Progress impeded by identifiable factors  $g$  (e.g., fiscal cliff)

- a. If  $e$  appears substantial despite the headwinds, do more, but not enough to offset the effects of adverse factors on unemployment ("temper expectations" for labor market improvement)
- b. If believe the limited progress is primarily due to low  $e$ , curtail and pursue other approaches

## Appendix 7: Materials used by Mr. English

Material for

### FOMC Briefing on Monetary Policy Alternatives

Bill English

December 11-12, 2012

### Class I FOMC - Restricted Controlled (FR)

## Federal Reserve Security Purchases and Holdings

Top-left panel

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

Expected End of Security Purchases	Unemployment Rate (Percent)	Alternative
2012:Q4	7.96	Alternative C
2013:Q2	7.89	Alternative B
2013:Q3	7.83	
2013:Q4	7.10	
2013:Q4	7.20	
2013:Q4	7.50	
2013:Q4	7.70	
2013:Q4	7.77	Alternative A
2013:Q4	7.80	
2013:Q4	8.00	
2014:Q1	7.23	
2014:Q1	7.30	
2014:Q1	7.40	
2014:Q1	7.50	
2014:Q1	7.60	
2014:Q2	7.10	
2014:Q3	7.05	
2014:Q3	7.30	
2014:Q4	7.20	
2015:Q2	6.75	
2015:Q4	6.50	
2015:Q4	6.50	

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

Top-right panel

### Total Projected SOMA Security Holdings

Billions of dollars

Period	Alternative A	Alternative B	Alternative C	Median dealer projection
January 2006	748.82	748.82	748.82	748.82
February 2006	754.68	754.68	754.68	754.68
March 2006	758.54	758.54	758.54	758.54
April 2006	759.69	759.69	759.69	759.69
May 2006	762.41	762.41	762.41	762.41
June 2006	766.36	766.36	766.36	766.36
July 2006	764.81	764.81	764.81	764.81

August 2006	766.74	766.74	766.74	766.74
September 2006	768.92	768.92	768.92	768.92
October 2006	768.49	768.49	768.49	768.49
November 2006	772.60	772.60	772.60	772.60
December 2006	778.91	778.91	778.91	778.91
January 2007	778.86	778.86	778.86	778.86
February 2007	780.79	780.79	780.79	780.79
March 2007	780.90	780.90	780.90	780.90
April 2007	787.19	787.19	787.19	787.19
May 2007	790.27	790.27	790.27	790.27
June 2007	790.52	790.52	790.52	790.52
July 2007	790.80	790.80	790.80	790.80
August 2007	779.64	779.64	779.64	779.64
September 2007	779.63	779.63	779.63	779.63
October 2007	779.59	779.59	779.59	779.59
November 2007	779.70	779.70	779.70	779.70
December 2007	740.61	740.61	740.61	740.61
January 2008	713.38	713.38	713.38	713.38
February 2008	713.35	713.35	713.35	713.35
March 2008	591.23	591.23	591.23	591.23
April 2008	548.69	548.69	548.69	548.69
May 2008	486.90	486.90	486.90	486.90
June 2008	478.84	478.84	478.84	478.84
July 2008	479.24	479.24	479.24	479.24
August 2008	479.70	479.70	479.70	479.70
September 2008	491.13	491.13	491.13	491.13
October 2008	490.09	490.09	490.09	490.09
November 2008	488.62	488.62	488.62	488.62
December 2008	495.63	495.63	495.63	495.63
January 2009	510.79	510.79	510.79	510.79
February 2009	581.68	581.68	581.68	581.68
March 2009	779.35	779.35	779.35	779.35
April 2009	983.18	983.18	983.18	983.18
May 2009	1,113.52	1,113.52	1,113.52	1,113.52
June 2009	1,215.52	1,215.52	1,215.52	1,215.52
July 2009	1,354.07	1,354.07	1,354.07	1,354.07
August 2009	1,491.50	1,491.50	1,491.50	1,491.50
September 2009	1,592.70	1,592.70	1,592.70	1,592.70
October 2009	1,697.80	1,697.80	1,697.80	1,697.80
November 2009	1,783.76	1,783.76	1,783.76	1,783.76
December 2009	1,844.84	1,844.84	1,844.84	1,844.84
January 2010	1,910.42	1,910.42	1,910.42	1,910.42
February 2010	1,970.83	1,970.83	1,970.83	1,970.83
March 2010	2,014.39	2,014.39	2,014.39	2,014.39
April 2010	2,042.12	2,042.12	2,042.12	2,042.12
May 2010	2,057.14	2,057.14	2,057.14	2,057.14
June 2010	2,059.88	2,059.88	2,059.88	2,059.88
July 2010	2,053.99	2,053.99	2,053.99	2,053.99
August 2010	2,045.95	2,045.95	2,045.95	2,045.95
September 2010	2,044.31	2,044.31	2,044.31	2,044.31
October 2010	2,040.23	2,040.23	2,040.23	2,040.23
November 2010	2,081.47	2,081.47	2,081.47	2,081.47
December 2010	2,161.09	2,161.09	2,161.09	2,161.09
January 2011	2,238.30	2,238.30	2,238.30	2,238.30
February 2011	2,319.84	2,319.84	2,319.84	2,319.84
March 2011	2,410.10	2,410.10	2,410.10	2,410.10
April 2011	2,472.32	2,472.32	2,472.32	2,472.32
May 2011	2,567.25	2,567.25	2,567.25	2,567.25
June 2011	2,645.10	2,645.10	2,645.10	2,645.10
July 2011	2,647.93	2,647.93	2,647.93	2,647.93
August 2011	2,646.83	2,646.83	2,646.83	2,646.83
September 2011	2,643.81	2,643.81	2,643.81	2,643.81
October 2011	2,619.75	2,619.75	2,619.75	2,619.75
November 2011	2,605.00	2,605.00	2,605.00	2,605.00
December 2011	2,605.12	2,605.12	2,605.12	2,605.12
January 2012	2,597.45	2,597.45	2,597.45	2,597.45
February 2012	2,603.21	2,603.21	2,603.21	2,603.21
March 2012	2,594.40	2,594.40	2,594.40	2,594.40
Loading [MathJax]/jax/output/HTML-CSS/jax.js	2,603.40	2,603.40	2,603.40	2,603.40

May 2012	2,606.44	2,606.44	2,606.44	2,606.44
June 2012	2,606.40	2,606.40	2,606.40	2,606.40
July 2012	2,589.00	2,589.00	2,589.00	2,589.00
August 2012	2,573.34	2,573.34	2,573.34	2,573.34
September 2012	2,563.68	2,563.68	2,563.68	2,563.68
October 2012	2,579.27	2,579.27	2,579.27	2,579.27
November 2012	2,603.55	2,603.69	2,607.83	2,603.55
December 2012	2,654.34	2,654.95	2,666.17	2,643.55
January 2013	2,744.74	2,740.72	2,712.15	2,728.55
February 2013	2,840.30	2,827.17	2,737.20	2,813.55
March 2013	2,940.76	2,914.26	2,742.24	2,898.55
April 2013	3,042.39	3,001.21	2,742.55	2,983.55
May 2013	3,144.19	3,087.89	2,742.99	3,068.55
June 2013	3,246.26	3,174.84	2,743.80	3,153.55
July 2013	3,343.64	3,217.05	2,745.07	3,238.55
August 2013	3,440.19	3,241.80	2,746.65	3,323.55
September 2013	3,524.69	3,248.61	2,748.20	3,408.55
October 2013	3,602.67	3,250.79	2,749.30	3,493.55
November 2013	3,659.84	3,251.98	2,749.88	3,578.55
December 2013	3,708.53	3,252.57	2,750.12	3,663.55
January 2014	3,730.31	3,252.99	2,750.32	3,678.55
February 2014	3,741.68	3,253.45	2,750.53	3,693.55
March 2014	3,744.22	3,254.06	2,750.79	3,708.55
April 2014	3,744.78	3,254.63	2,751.01	3,723.55
May 2014	3,745.26	3,255.16	2,746.59	3,738.55
June 2014	3,745.60	3,255.56	2,737.58	3,753.55
July 2014	3,745.83	3,255.88	2,727.54	3,753.55
August 2014	3,745.96	3,256.12	2,717.48	3,753.55
September 2014	3,746.08	3,256.31	2,707.41	3,753.55
October 2014	3,746.14	3,256.46	2,697.32	3,753.55
November 2014	3,746.19	3,256.53	2,687.00	3,753.55
December 2014	3,746.23	3,256.61	2,676.83	3,753.55
January 2015	3,747.22	3,257.72	2,667.69	3,753.55
February 2015	3,747.65	3,258.29	2,658.49	3,753.55
March 2015	3,747.57	3,258.36	2,649.20	3,753.55
April 2015	3,747.36	3,258.27	2,632.73	3,753.55
May 2015	3,741.04	3,252.83	2,616.26	3,753.55
June 2015	3,728.57	3,242.04	2,599.79	3,753.55
July 2015	3,714.70	3,230.06	2,583.32	3,736.88
August 2015	3,700.78	3,218.07	2,566.85	3,720.22
September 2015	3,686.84	3,206.08	2,550.38	3,703.55
October 2015	3,672.86	3,194.13	2,533.90	3,686.88
November 2015	3,658.87	3,182.21	2,517.43	3,670.22
December 2015	3,644.87	3,170.36	2,500.96	3,653.55
January 2016	3,624.12	3,151.81	2,477.73	3,628.72
February 2016	3,572.61	3,102.54	2,423.72	3,603.88
March 2016	3,534.16	3,066.37	2,382.75	3,579.05
April 2016	3,481.38	3,017.55	2,337.62	3,554.22
May 2016	3,417.08	2,957.21	2,280.97	3,529.38
June 2016	3,378.46	2,922.56	2,250.01	3,504.55
July 2016	3,343.17	2,891.22	2,222.37	3,479.55
August 2016	3,304.80	2,856.82	2,191.66	3,454.55
September 2016	3,272.92	2,828.91	2,167.44	3,429.55
October 2016	3,241.35	2,801.30	2,143.52	3,404.55
November 2016	3,192.15	2,756.07	2,102.02	3,379.55
December 2016	3,155.41	2,723.28	2,072.93	3,354.55
January 2017	3,121.44	2,693.28	2,046.61	ND
February 2017	3,078.29	2,654.09	2,011.12	ND
March 2017	3,042.45	2,622.21	1,982.93	ND
April 2017	3,004.80	2,588.53	1,952.94	ND
May 2017	2,949.51	2,537.20	1,905.30	ND
June 2017	2,914.16	2,505.82	1,877.61	ND
July 2017	2,875.45	2,471.70	1,852.87	ND
August 2017	2,824.48	2,425.32	1,815.85	ND
September 2017	2,788.93	2,394.36	1,794.27	ND
October 2017	2,755.97	2,366.00	1,775.28	ND
November 2017	2,708.02	2,322.64	1,741.32	ND
December 2017	2,663.87	2,283.09	1,711.14	ND
Loading [(MathJax)/jax/output/HTML-CSS/jax.js	2,618.48	2,247.34	1,679.07	ND

February 2018	2,558.69	2,197.19	1,632.61	ND
March 2018	2,516.00	2,162.88	1,602.00	ND
April 2018	2,470.51	2,125.76	1,584.63	ND
May 2018	2,401.76	2,063.50	1,592.92	ND
June 2018	2,360.83	2,029.06	1,601.20	ND
July 2018	2,311.91	1,984.68	1,609.49	ND
August 2018	2,249.93	1,927.23	1,617.78	ND
September 2018	2,213.55	1,895.38	1,626.08	ND
October 2018	2,167.64	1,854.01	1,634.40	ND
November 2018	2,093.06	1,783.96	1,642.73	ND
December 2018	2,051.41	1,746.85	1,651.04	ND
January 2019	2,015.86	1,720.39	1,659.88	ND
February 2019	1,947.51	1,661.14	1,668.73	ND
March 2019	1,903.98	1,652.97	1,677.58	ND
April 2019	1,859.12	1,662.19	1,686.44	ND
May 2019	1,781.05	1,671.43	1,695.32	ND
June 2019	1,736.03	1,680.67	1,704.20	ND
July 2019	1,698.79	1,689.92	1,713.11	ND
August 2019	1,688.58	1,699.20	1,722.03	ND
September 2019	1,697.99	1,708.42	1,730.92	ND
October 2019	1,707.89	1,717.67	1,739.83	ND
November 2019	1,717.33	1,726.94	1,748.76	ND
December 2019	1,726.78	1,736.20	1,757.69	ND
January 2020	1,737.63	1,745.99	1,767.15	ND
February 2020	1,747.62	1,755.80	1,776.63	ND
March 2020	1,757.60	1,765.60	1,786.09	ND
April 2020	1,768.42	1,775.42	1,795.22	ND
May 2020	1,778.44	1,785.27	1,804.38	ND
June 2020	1,788.44	1,795.09	1,813.52	ND
July 2020	1,799.44	1,804.94	1,822.69	ND
August 2020	1,809.47	1,814.79	1,831.88	ND
September 2020	1,819.46	1,824.61	1,841.04	ND
October 2020	1,829.47	1,834.45	1,850.23	ND
November 2020	1,839.49	1,844.31	1,859.44	ND
December 2020	1,849.53	1,854.18	1,868.68	ND
January 2021	1,859.92	1,864.41	1,878.27	ND
February 2021	1,870.33	1,874.66	1,887.90	ND
March 2021	1,880.72	1,884.89	1,897.50	ND
April 2021	1,890.47	1,894.61	1,907.13	ND
May 2021	1,900.25	1,904.36	1,916.79	ND
June 2021	1,910.00	1,914.08	1,926.43	ND
July 2021	1,919.76	1,923.82	1,936.09	ND
August 2021	1,929.56	1,933.59	1,945.77	ND
September 2021	1,939.35	1,943.36	1,955.46	ND
October 2021	1,949.17	1,953.15	1,965.18	ND
November 2021	1,959.01	1,962.97	1,974.92	ND
December 2021	1,968.81	1,972.75	1,984.62	ND
January 2022	1,979.02	1,982.93	1,994.72	ND
February 2022	1,989.25	1,993.13	2,004.85	ND
March 2022	1,999.50	2,003.36	2,015.00	ND
April 2022	2,009.78	2,013.62	2,025.18	ND
May 2022	2,020.10	2,023.90	2,035.39	ND
June 2022	2,030.43	2,034.21	2,045.63	ND
July 2022	2,040.80	2,044.54	2,055.89	ND
August 2022	2,051.19	2,054.91	2,066.19	ND
September 2022	2,061.60	2,065.29	2,076.51	ND
October 2022	2,072.04	2,075.70	2,086.85	ND
November 2022	2,082.51	2,086.15	2,097.22	ND
December 2022	2,093.00	2,096.61	2,107.62	ND
January 2023	2,103.97	2,107.55	2,118.49	ND
February 2023	2,114.97	2,118.52	2,129.40	ND
March 2023	2,125.98	2,129.51	2,140.31	ND
April 2023	2,137.02	2,140.52	2,151.26	ND
May 2023	2,148.10	2,151.57	2,162.23	ND
June 2023	2,159.20	2,162.64	2,173.24	ND
July 2023	2,170.33	2,173.75	2,184.28	ND
August 2023	2,181.49	2,184.88	2,195.34	ND
September 2023	2,192.68	2,196.03	2,206.43	ND
October 2023	2,203.89	2,207.22	2,217.55	ND

November 2023	2,215.13	2,218.43	2,228.70	ND
December 2023	2,226.40	2,229.68	2,239.88	ND
January 2024	2,238.19	2,241.44	2,251.57	ND
February 2024	2,250.02	2,253.24	2,263.30	ND
March 2024	2,261.87	2,265.06	2,275.07	ND
April 2024	2,273.75	2,276.92	2,286.86	ND
May 2024	2,285.67	2,288.81	2,298.68	ND
June 2024	2,297.62	2,300.73	2,310.54	ND
July 2024	2,309.60	2,312.68	2,322.43	ND
August 2024	2,321.61	2,324.67	2,334.35	ND
September 2024	2,333.66	2,336.69	2,346.30	ND
October 2024	2,345.73	2,348.74	2,358.29	ND
November 2024	2,357.84	2,360.82	2,370.31	ND
December 2024	2,369.98	2,372.93	2,382.35	ND

**Bottom-left panel**  
**SEP Information on Purchases**

- Eight of you indicated that your balance sheet projections did not differ materially from staff's
- Seven of you judged that appropriate policy implied a larger volume of purchases
- Four of you judged that purchases should be smaller

**Bottom-right panel**  
**Possible Explanations for the Discrepancy**

- Difference likely not due to the dealers having a weaker outlook
- Dealers may believe that the Committee will follow a more aggressive stopping rule
- Dealers may be less concerned about efficacy and costs
- Dealers are highly uncertain about the ultimate level of purchases

**Alternative Monetary Policy Scenarios**

**Top panel**  
**Federal Funds Rate**

Percent

Period	Alternative A	Alternative B	Alternative C
2012:Q1	0.10	0.10	0.10
2012:Q2	0.15	0.15	0.15
2012:Q3	0.14	0.14	0.14
2012:Q4	0.13	0.15	0.15
2013:Q1	0.13	0.13	0.13
2013:Q2	0.13	0.13	0.13
2013:Q3	0.13	0.13	0.13
2013:Q4	0.13	0.13	0.13
2014:Q1	0.13	0.13	0.13
2014:Q2	0.13	0.13	0.13
2014:Q3	0.13	0.13	0.13
2014:Q4	0.13	0.13	0.19
2015:Q1	0.13	0.13	0.29
2015:Q2	0.13	0.13	0.47
2015:Q3	0.13	0.13	0.72
2015:Q4	0.13	0.38	1.03
2016:Q1	0.21	0.79	1.40
2016:Q2	0.54	1.24	1.71
2016:Q3	1.15	1.65	1.98
2016:Q4	1.97	2.02	2.18
2017:Q1	2.70	2.34	2.35
2017:Q2	3.23	2.64	2.50
2017:Q3	3.59	2.93	2.65
2017:Q4	3.81	3.22	2.80
2018:Q1	3.92	3.43	2.93
2018:Q2	3.94	3.56	3.03
2018:Q3	3.93	3.64	3.12
2018:Q4	3.90	3.68	3.21
2019:Q1	3.87	3.71	3.31
2019:Q2	3.86	3.74	3.42
2019:Q3	3.88	3.80	3.54
2019:Q4	3.91	3.86	3.68
2020:Q1	3.96	3.93	3.82

2020:Q2	4.00	4.00	3.95
2020:Q3	4.05	4.07	4.07
2020:Q4	4.09	4.13	4.17

## Middle panel Unemployment Rate

Percent

Period	Alternative A	Alternative B	Alternative C
2012:Q1	8.24	8.24	8.24
2012:Q2	8.17	8.17	8.17
2012:Q3	8.05	8.05	8.05
2012:Q4	7.96	7.96	7.96
2013:Q1	7.93	7.93	7.96
2013:Q2	7.89	7.89	7.99
2013:Q3	7.84	7.86	8.02
2013:Q4	7.77	7.81	8.05
2014:Q1	7.66	7.73	8.03
2014:Q2	7.55	7.66	8.02
2014:Q3	7.40	7.54	7.96
2014:Q4	7.22	7.39	7.86
2015:Q1	6.99	7.20	7.70
2015:Q2	6.74	6.97	7.52
2015:Q3	6.52	6.77	7.34
2015:Q4	6.27	6.54	7.14
2016:Q1	6.03	6.31	6.93
2016:Q2	5.82	6.10	6.73
2016:Q3	5.64	5.93	6.55
2016:Q4	5.51	5.79	6.40
2017:Q1	5.41	5.68	6.26
2017:Q2	5.35	5.59	6.13
2017:Q3	5.30	5.51	6.01
2017:Q4	5.26	5.43	5.88
2018:Q1	5.29	5.43	5.83
2018:Q2	5.32	5.43	5.78
2018:Q3	5.35	5.44	5.74
2018:Q4	5.38	5.45	5.70
2019:Q1	5.40	5.46	5.66
2019:Q2	5.42	5.46	5.62
2019:Q3	5.42	5.45	5.57
2019:Q4	5.41	5.43	5.52
2020:Q1	5.39	5.40	5.47
2020:Q2	5.37	5.37	5.42
2020:Q3	5.35	5.35	5.37
2020:Q4	5.33	5.32	5.33

## Bottom panel PCE Inflation

Four-quarter average

Percent

Period	Alternative A	Alternative B	Alternative C
2012:Q1	2.36	2.36	2.36
2012:Q2	1.64	1.64	1.64
2012:Q3	1.45	1.45	1.45
2012:Q4	1.60	1.57	1.49
2013:Q1	1.29	1.23	1.10
2013:Q2	1.50	1.40	1.20
2013:Q3	1.48	1.35	1.08
2013:Q4	1.42	1.30	1.02
2014:Q1	1.50	1.38	1.08
2014:Q2	1.51	1.39	1.06
2014:Q3	1.51	1.39	1.05
2014:Q4	1.52	1.41	1.06
2015:Q1	1.55	1.43	1.08
2015:Q2	1.59	1.47	1.11
2015:Q3	1.62	1.50	1.14
2015:Q4	1.66	1.54	1.19
2016:Q1	1.69	1.57	1.22

2016:Q2	1.74	1.62	1.27
2016:Q3	1.81	1.68	1.34
2016:Q4	1.88	1.75	1.41
2017:Q1	1.93	1.81	1.47
2017:Q2	1.98	1.85	1.53
2017:Q3	2.01	1.89	1.58
2017:Q4	2.04	1.92	1.63
2018:Q1	2.05	1.94	1.67
2018:Q2	2.05	1.95	1.71
2018:Q3	2.04	1.96	1.75
2018:Q4	2.03	1.96	1.78
2019:Q1	2.02	1.97	1.81
2019:Q2	2.01	1.97	1.85
2019:Q3	2.00	1.97	1.88
2019:Q4	1.98	1.97	1.91
2020:Q1	1.98	1.97	1.94
2020:Q2	1.97	1.97	1.97
2020:Q3	1.97	1.98	1.99
2020:Q4	1.96	1.98	2.02

## October FOMC Statement

1. Information received since the Federal Open Market Committee met in September suggests that economic activity has continued to expand at a moderate pace in recent months. Growth in employment has been slow, and the unemployment rate remains elevated. Household spending has advanced a bit more quickly, but growth in business fixed investment has slowed. The housing sector has shown some further signs of improvement, albeit from a depressed level. Inflation recently picked up somewhat, reflecting higher energy prices. Longer-term inflation expectations have remained stable.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee remains concerned that, without sufficient policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Furthermore, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term likely would run at or below its 2 percent objective.
3. To support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee will continue purchasing additional agency mortgage-backed securities at a pace of \$40 billion per month. The Committee also will continue through the end of the year its program to extend the average maturity of its holdings of Treasury securities, and it is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. These actions, which together will increase the Committee's holdings of longer-term securities by about \$85 billion each month through the end of the year, should put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.
4. The Committee will closely monitor incoming information on economic and financial developments in coming months. If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of agency mortgage-backed securities, undertake additional asset purchases, and employ its other policy tools as appropriate until such improvement is achieved in a context of price stability. In determining the size, pace, and composition of its asset purchases, the Committee will, as always, take appropriate account of the likely efficacy and costs of such purchases.
5. To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after the economic recovery strengthens. In particular, the Committee also decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015.

[Note: In the December 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.]

## December FOMC Statement--Alternative A

1. Information received since the Federal Open Market Committee met in ~~September~~ **October** suggests that economic activity has continued to expand at a moderate pace in recent months, **apart from weather-related disruptions**. Growth in employment has been slow, and the unemployment rate remains elevated. Household spending has **continued to** advanced a bit more quickly, but growth in business fixed investment has slowed. The housing sector has shown some further signs of improvement, albeit from a depressed level. Inflation ~~recently picked up somewhat~~ **has been running somewhat below the Committee's longer-run objective, apart from temporary variations that largely reflecting higher fluctuations in** energy prices. Longer-term inflation expectations have remained stable.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee remains concerned that, without ~~sufficient~~ **further** policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Furthermore, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term likely ~~would~~ **will** run at or below its 2 percent objective.
3. To support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee ~~will continue purchasing~~ **agreed today to increase its purchases of** additional agency mortgage-backed securities ~~at~~ **a pace of \$40 \$50 billion per month beginning in January**. The Committee also will ~~continue through the end of the year~~ **purchase longer-term Treasury securities at a pace of \$50 billion per month after** its program to extend the average maturity of its holdings of Treasury securities, ~~and it is~~ **year. The Committee** is maintaining its existing policy of reinvesting principal payments from its holdings of agency

debt and agency mortgage-backed securities in agency mortgage-backed securities **and, in January, will resume rolling over maturing Treasury securities at auction.** These actions, which together will increase the Committee's holdings of longer-term securities by about ~~\$85~~ **\$100** billion ~~each per month through the end of the year,~~ should put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.

4. The Committee will closely monitor incoming information on economic and financial developments in coming months. If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of **Treasury and** agency mortgage-backed securities, ~~undertake additional asset purchases,~~ and employ its other policy tools as appropriate, until such improvement is achieved **it judges that data on economic activity and labor market conditions are consistent with an outlook for sustained progress toward maximum employment** in a context of price stability. In determining the size, pace, and composition of its asset purchases, the Committee will, as always, take appropriate account of the likely efficacy and costs of such purchases.

5. To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after [ **it sees a substantial improvement in the outlook for the labor market, the asset purchase program ends, and** ] the economic recovery strengthens. In particular, the Committee ~~also decided today~~ to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that ~~exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015~~ **this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above 6 percent, inflation between one and two years ahead is projected to be no more than 1/2 percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored.** In determining how long to maintain a highly accommodative stance of monetary policy, the Committee will also consider other information, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments. **When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with [ maintaining satisfactory progress toward maximum employment in a context of price stability | its longer-run goals of maximum employment and inflation of 2 percent ].**

## December FOMC Statement--Alternative B

1. Information received since the Federal Open Market Committee met in ~~September~~ **October** suggests that economic activity **and employment** ~~has have~~ continued to expand at a moderate pace in recent months, ~~apart from weather-related disruptions.~~ **Growth in employment has been slow, and Although** the unemployment rate **has declined somewhat since the summer,** it remains elevated. Household spending has **continued to advanced a bit more quickly, and the housing sector has shown further signs of improvement,** but growth in business fixed investment has slowed. ~~The housing sector has shown some further signs of improvement, albeit from a depressed level.~~ **Inflation recently picked up somewhat, has been running somewhat below the Committee's longer-run objective, apart from temporary variations that largely reflecting higher fluctuations in** energy prices. Longer-term inflation expectations have remained stable.

2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee remains concerned that, without sufficient policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Furthermore, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term likely ~~would~~ **will** run at or below its 2 percent objective.

3. To support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee will continue purchasing additional agency mortgage-backed securities at a pace of \$40 billion per month. The Committee also will ~~continue through the end of the year~~ **purchase longer-term Treasury securities after** its program to extend the average maturity of its holdings of Treasury securities, ~~and it is completed at the end of the year, initially at a pace of \$45 billion per month.~~ **The Committee** is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities **and, in January, will resume rolling over maturing Treasury securities at auction.** ~~Taken together, these actions, which together will increase the Committee's holdings of longer-term securities by about \$85 billion each month through the end of the year,~~ should put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.

4. The Committee will closely monitor incoming information on economic and financial developments in coming months. If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of **Treasury and** agency mortgage-backed securities, ~~undertake additional asset purchases,~~ and employ its other policy tools as appropriate, until such improvement is achieved in a context of price stability. In determining the size, pace, and composition of its asset purchases, the Committee will, as always, take appropriate account of the likely efficacy and costs of such purchases.

5. To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after [ **it sees a substantial improvement in the outlook for the labor market, the asset purchase program ends, and** ] the economic recovery strengthens. In particular, the Committee ~~also decided today~~ to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that ~~exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015~~ **this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above 6 1/2 percent, inflation between one and two years ahead is projected to be no more than 1/2 percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored.** **The Committee views these thresholds as consistent with its earlier date-based guidance.** In determining how long to maintain a highly accommodative stance of monetary policy, the Committee will also consider other information, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments. **When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with [ maintaining satisfactory progress toward maximum employment in a context of price stability | its longer-run goals of maximum employment and inflation of 2 percent ].**

OR

5. To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after [ **it sees a substantial improvement in the outlook for the labor market, the asset purchase program ends, and** ] the economic recovery strengthens. In particular, the Committee also decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015.

## December FOMC Statement--Alternative C

1. Information received since the Federal Open Market Committee met in ~~September~~ **October** suggests that economic activity **and employment** ~~has have~~ continued to expand at a moderate pace in recent months, **apart from weather-related disruptions**. ~~Growth in employment has been slow, and~~ The unemployment rate, ~~remains though still~~ **elevated, has declined**. ~~Household spending has advanced a bit more quickly, but growth in business fixed investment has slowed.~~ **Private domestic demand has continued to advance, and** the housing sector has shown ~~some~~ further signs of improvement, ~~albeit from a depressed level.~~ Inflation ~~recently picked up somewhat, reflecting higher energy prices~~ **has been running close to the Committee's longer-run objective**. Longer-term inflation expectations have remained stable.
  2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee ~~remains concerned that, without sufficient policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions~~ **expects economic growth to be moderate over coming quarters and then to pick up gradually, supported in part by the highly accommodative stance of monetary policy, and consequently anticipates that the unemployment rate will continue to decline at a pace that the Committee judges consistent with its mandate.** ~~Furthermore~~ **However**, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term ~~likely would~~ **will run at or below** ~~near~~ its 2 percent objective.
  3. **In light of the improving economic outlook, the Committee judges that it has provided sufficient policy accommodation** to support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its ~~dual~~ mandate. **Accordingly**, the Committee will, **at the end of the year, discontinue** purchasing additional agency mortgage-backed securities ~~at a pace of \$40 billion per month, and complete~~ ~~The Committee also will continue through the end of the year its program to extend the average maturity of its holdings of Treasury securities, and~~ **The Committee is maintaining continuing** its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities **and, in January, will resume rolling over maturing Treasury securities at auction.** These actions, which together will ~~increase~~ **keep** the Committee's holdings of longer-term securities ~~by about \$85 billion each month through the end of the year, at a level of about \$2.8 trillion, will maintain a highly accommodative stance of monetary policy and should put sustain~~ downward pressure on longer-term interest rates, support mortgage markets, and help to ~~make~~ **keep** broader financial conditions ~~more~~ accommodative.
  4. The Committee will closely monitor incoming information on economic and financial developments ~~in coming months.~~ ~~If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of agency mortgage backed securities, undertake additional asset purchases, and employ its other policy tools as appropriate until such improvement is achieved and is prepared to take further action as needed to promote sustained improvement in labor market conditions~~ in a context of price stability. ~~In determining the size, pace, and composition of its asset purchases, the Committee will, as always, take appropriate account of the likely efficacy and costs of such purchases.~~
  5. To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for [ a considerable | **some** ] time after the economic recovery strengthens. In particular, the Committee ~~also~~ decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that ~~exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015~~ **this exceptionally low range for the federal funds rate will be appropriate until it has observed substantial improvement in labor market conditions, provided that the Committee projects that inflation over the medium term will be close to its [ 2 percent ] objective and longer-term inflation expectations remain stable.**
- OR**
5. To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for [ a considerable | **some** ] time after the economic recovery strengthens. In particular, the Committee ~~also~~ decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that exceptionally low levels for the federal funds rate are likely to be warranted at least through ~~mid-2015~~ **[ late 2014 | mid-2014 | late 2013 ]**.

## October 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 announced in June to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about \$267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining maturities of approximately 3 years or less with a total face value of about \$267 billion. For the duration of this program, the Committee directs the Desk to suspend its policy of rolling over maturing Treasury securities into new issues. The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. The Desk is also directed to continue purchasing agency mortgage-backed securities at a pace of about \$40 billion per month. The Committee directs the Desk to engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

[Note: In the December 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.]

## December 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~~ **complete** the maturity extension program it announced in June to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about \$267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining maturities of approximately 3 years or less with a total face value of about \$267 billion. ~~For the duration~~ **Following the completion** of this program, the Committee directs the Desk to ~~suspend~~ **resume** its policy of rolling over maturing Treasury securities into new issues. **From the beginning of January, the Desk is directed to purchase longer-term Treasury securities at a pace of about \$50 billion per month.** The ~~Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. The Desk is also directed to continue purchasing agency mortgage-backed~~

securities at a pace of about \$40 billion per month **until the end of December 2012, and to purchase agency mortgage-backed securities at a pace of about \$50 billion per month beginning in January**. 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.

## December 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~~ **complete** the maturity extension program it announced in June to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about \$267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining maturities of approximately 3 years or less with a total face value of about \$267 billion. ~~For the duration~~ **Following the completion** of this program, the Committee directs the Desk to ~~suspend~~ **resume** its policy of rolling over maturing Treasury securities into new issues. **From the beginning of January, the Desk is directed to purchase longer-term Treasury securities at a pace of about \$45 billion per month.** The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. The Desk is also directed to continue purchasing agency mortgage-backed securities at a pace of about \$40 billion per month. The Committee directs the Desk to engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

## December 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~~ **complete** the maturity extension program it announced in June to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about \$267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining maturities of approximately 3 years or less with a total face value of about \$267 billion. ~~For the duration~~ **Following the completion** of this program, the Committee directs the Desk to ~~suspend~~ **resume** its policy of rolling over maturing Treasury securities into new issues. The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. The Desk is also directed to continue purchasing agency mortgage-backed securities at a pace of about \$40 billion per month **until the end of December 2012**. 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.

## Appendix 8: Materials used by Ms. Logan

Material for

**FOMC Presentation:** *Draft Desk Operating Statement*

Lorie Logan

December 12, 2012

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

**DRAFT**

## Statement Regarding Purchases of Treasury Securities and Agency Mortgage-Backed Securities

On December 12, 2012, the Federal Open Market Committee (FOMC) directed the Open Market Trading Desk (the Desk) at the Federal Reserve Bank of New York to purchase longer-term Treasury securities after the maturity extension program is completed at the end of December 2012, initially at a pace of about \$45 billion per month. The FOMC also directed the Desk to continue purchasing additional agency mortgage-backed securities (MBS) at a pace of about \$40 billion per month. These actions should put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.

The FOMC also directed the Desk to maintain its existing policy of reinvesting principal payments from the Federal Reserve's holdings of agency debt and agency MBS in agency MBS, and, in January, to resume rolling over maturing Treasury securities into new issues at auction.

Beginning in January, the purchases of longer-term Treasury securities will be distributed across 7 sectors based on the following approximate weights:

Nominal Coupon Securities by Maturity Range						TIPS
4 - 4 3/4 Years	4 3/4 - 5 3/4 Years	5 3/4 - 7 Years	7 - 10 Years	10 - 20 Years	20 - 30 Years	4 - 30 Years
11%	12%	16%	29%	2%	27%	3%

\* The on-the-run 7-year note will be considered part of the 5 3/4- to 7-year sector, and the on-the-run 10-year note will be considered part of the 7- to 10-year sector. [Return to table](#)

\*\* TIPS weights are based on unadjusted par amounts. [Return to table](#)

Under this distribution, the Desk anticipates that the Treasury securities purchased will have an average duration of approximately 9 years, roughly the same as the net of the duration of the securities purchased and sold under the maturity extension program. The distribution of Treasury securities purchased could change if market conditions warrant.

The Desk will continue to publish a tentative schedule of Treasury purchase operations for the following calendar month on or around the last business day of each month. The schedule will include the anticipated amount of purchases to be conducted, operation dates, settlement dates, security types (nominal coupons or TIPS) to be purchased, the maturity date range of eligible issues, and an expected range for the size of each operation. The next schedule of operations will be released on Monday, December 31. The amount of additional agency MBS to be purchased each month will also be announced on or around the last business day of the prior month.

Consistent with current practices, the purchases of Treasury securities and agency MBS will be conducted with the Federal Reserve's primary dealers through a competitive bidding process and results will be published on the Federal Reserve Bank of New York's website. The Desk will continue to publish transaction prices for individual operations at the end of each monthly period. All other purchase details remain the same at this time.

Frequently Asked Questions associated with these purchases, which include a technical adjustment to the process of reinvesting maturing Treasury securities into new issues at auction, will be released later today.

Last Update: January 5, 2018