

# Accessible Version

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## Meeting of the Federal Open Market Committee January 26-27, 2010 Presentation Materials

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

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### Appendix 1: Materials used by Mr. Sack

Material for

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

Brian Sack

January 26, 2010

Class II FOMC - Restricted FR

### Exhibit 1

*Top-left panel*

(1)

**Title:** US Equity Prices (S&P 500)

**Series:** Standard & Poor's 500 Index

**Horizon:** August 1, 2008 - January 22, 2010

**Description:** After increasing over much of the intermeeting period, US equity prices have decreased recently.

A vertical line marks the FOMC meeting of December 15-16, 2009.

Source: Bloomberg

*Top-right panel*

(2)

**Title:** VIX Index

**Series:** Chicago Board Options Exchange Volatility Index

**Horizon:** August 1, 2008 - January 22, 2010

**Description:** Option implied volatility has increased markedly in the past week.

Source: Bloomberg

*Middle-left panel*

(3)

**Title:** Corporate Debt Spreads

**Series:** High yield and investment grade corporate debt spreads

**Horizon:** August 1, 2008 - January 21, 2010

**Description:** Corporate debt spreads continue to narrow.

Source: Bank of America

*Middle-right panel*

(4)

**Title:** High Yield Corporate Bond Risk Premium

**Series:** Quarterly average high yield U.S. corporate bond credit risk premium based on a persistent default rate model

**Horizon:** March 31, 1997 - December 31, 2009

**Description:** The bond risk premium continues to retrace the sharp increase that occurred in 2008.

Source: Federal Reserve Bank of New York

*Bottom-left panel*

(5)

**Title:** CMBS Spreads

**Series:** CMBS spreads for junior, mezzanine and super senior tranches

**Horizon:** August 1, 2008 - January 22, 2010

**Description:** CMBS spreads narrow over intermeeting period.

Source: JP Morgan Chase

*Bottom-right panel*

(6)

**Title:** US Equity Indices for Financial Firms

**Series:** Large and regional bank indices

**Horizon:** August 1, 2008 - January 22, 2010

**Description:** Regional bank equity prices continue to increase while large bank equity prices have declined since January 4, 2010.

Source: Bloomberg, Federal Reserve Bank of New York

## Exhibit 2

*Top-left panel*

(7)

**Title:** Implied Federal Funds Rate

**Series:** Federal funds rates implied by Eurodollar and federal funds futures contracts

**Horizon:** 12/15/09, 1/22/10

**Description:** The market's expectation for the future path of the federal funds rate has shifted down since the last FOMC meeting.

Source: Federal Reserve Bank of New York

*Top-right panel*

(8)

**Title:** Treasury Yields

**Series:** Yields for the 2-year, 5-year, and 10-year Treasury note

**Horizon:** August 1, 2008 - December 22, 2009

**Description:** The 2-year Treasury yield fell modestly, while longer-term yields ended the period roughly

unchanged.

Source: Bloomberg

*Middle-left panel*

(9)

**Title:** Premium for Skew toward Higher Long Rates

**Series:** 3-month, 10-year payer skew, 100 bps out-of-the-money puts less at-the-money options

**Horizon:** August 1, 2003 - January 22, 2010

**Description:** The premium for protection against a sizable increase in longer-term interest rates has been increasing.

Source: JP Morgan Chase

*Middle-right panel*

(10)

**Title:** 5-Year 5-Year Forward Breakeven Rates

**Series:** 5-year, 5-year forward breakeven inflation rates from Barclays and from the Board of Governors

**Horizon:** January 1, 2002 - January 21, 2010

**Description:** Breakeven inflation rates have increased since late 2008.

Source: Federal Reserve Board of Governors, Barclays Capital

*Bottom-left panel*

(11) *5-Year 5-Year Forward Breakeven Statistics\**

	Current Level	Pre-Crisis Range	Percent Rank
<b>Barclays</b>	2.77	1.63-2.88	98.2
<b>Board of Governors</b>	3.06	2.31-3.36	89.2

\* Pre-crisis range is January 2002 - July 2007 [Return to text](#)

Source: Barclays Capital, Federal Reserve Board of Governors

*Bottom-right panel*

(12)

**Title:** Gross Treasury Coupon Issuance

**Series:** Gross issuance of TIPS and 2-, 3-, 5-, 7-, 10-, and 30-year notes and bonds

**Horizon:** 1992 - projected levels for 2010

**Description:** The issuance of nominal coupons is increasing dramatically while the issuance of TIPS is growing at a slower pace.

Source: US Treasury, Wrightson ICAP

## Exhibit 3

*Top-left panel*

(13)

**Title:** Weekly Pace of MBS Purchases

**Series:** Monthly average of agency MBS purchases and projected path of weekly agency MBS purchases  
**Horizon:** January 2009 - March 2010  
**Description:** Agency MBS purchases continue to taper and are on track to meet the \$1.25 trillion target.

Source: Federal Reserve Bank of New York

*Top-right panel*

(14)

**Title:** Weekly Pace of Agency Debt Purchases  
**Series:** Monthly average of agency debt purchases and projected path of weekly agency debt purchases  
**Horizon:** January 2009 - March 2010  
**Description:** Agency debt purchases have fallen behind their intended schedule.

Source: Federal Reserve Bank of New York

*Middle-left panel*

(15)

**Title:** MBS Spreads  
**Series:** Fannie Mae fixed-rate current coupon option-adjusted spreads to Treasury and to swap  
**Horizon:** August 1, 2000 - January 22, 2010  
**Description:** MBS spreads remain tight, despite the slower pace of purchases.

Source: Barclays Capital

*Middle-right panel*

(16)

**Title:** Agency Debt Spread  
**Series:** Fannie Mae 5-year benchmark spread to Treasury  
**Horizon:** August 1, 2000 - January 25, 2010  
**Description:** Agency debt spreads remain tight, despite the slower pace of purchases.

Source: JP Morgan Chase

*Bottom-left panel*

(17)

**Title:** MBS Fails  
**Series:** Dealer-reported failures to deliver MBS securities.  
**Horizon:** January 1, 2002 - January 13, 2010  
**Description:** The MBS market has been experiencing an unusually large volume of settlement fails in recent months.

Source: FR2004

*Bottom-right panel*

(18)

**Title:** Dollar Roll Sales  
**Series:** Sales of dollar rolls by the Federal Reserve Bank of New York  
**Horizon:** June 1, 2009 - January 11, 2010  
**Description:** The Federal Reserve Bank of New York continues to sell dollar rolls.

Source: Federal Reserve Bank of New York

## Exhibit 4

### *Top-left panel* (19)

**Title:** Federal Reserve Short-Term Liquidity Facilities

**Series:** Size of short-term liquidity facilities

**Horizon:** August 1, 2008 - January 21, 2010

**Description:** The volume of activity in the short-term facilities continues to decline.

TSLF, PDCF, AMLF, CPFF, FX Swaps, PCF, and TAF

Source: Federal Reserve Bank of New York

### *Top-right panel* (20) *Liquidity Facility Usage*

(Levels in \$ Billions)

	Current Outstanding	Peak Outstanding	Peak Date
<b>TSLF</b>	0	223	12/4/08
<b>PDCF</b>	0	156	9/29/08
<b>AMLF</b>	0	152	10/1/08
<b>CPFF</b>	3.9	351	1/23/09
<b>FX Swaps</b>	0.2	586	12/4/08
<b>PCF</b>	14.9	114	10/28/08
<b>TAF</b>	38.5	493	3/11/09

Source: Federal Reserve Bank of New York, Federal Reserve Board of Governors

### *Middle-left panel* (21)

**Title:** Money Market Rates

**Series:** Spread between 3-month financial CP and the overnight index swap and the spread between 3-month LIBOR and the overnight index swap

**Horizon:** August 1, 2008 - January 19, 2010

**Description:** Short-term funding spreads remain quite tight.

Source: Bloomberg, Federal Reserve Board of Governors

### *Middle-right panel* (22)

**Title:** Balance Sheet Assets by Category

**Series:** Federal Reserve balance sheet assets categorized by All Other, Lending to Systematically Important Institutions, Short-Term Liquidity Facilities, and Outright Asset Holdings

**Horizon:** August 1, 2008 - January 21, 2010

**Description:** The dominant component of the balance sheet has become the outright holdings of SOMA assets as the volume of activity in the short-term facilities continues to decline.

Source: Federal Reserve Bank of New York

### *Bottom-left panel*

(23) *Expected Use of Exit Tools Relative to First Target Rate Increase (% of Respondents)*

	Before	Concurrent	After	Never
<b>RRP</b>	73	23	4	0
<b>TDF</b>	70	23	5	2
<b>IOER</b>	15	75	10	0
<b>Tsy Sales</b>	6	0	60	34
<b>Agy Sales</b>	6	0	60	34
<b>MBS Sales</b>	4	2	60	34

Source: Federal Reserve Bank of New York Exit Survey

*Bottom-right panel*

(24)

**Title:** Expected Timing of Exit Tools

**Series:** Survey respondents' predictions of timing of expected use of exit tools relative to timing of the first target rate increase.

**Horizon:** N/A

**Description:** Primary dealers expect reverse repurchase agreements and the term deposit facility to be used prior to the first target rate increase, interest on excess reserves to be used concurrent to the first target rate increase, and asset sales to follow the first target rate increase.

Source: Federal Reserve Bank of New York Exit Survey

## Exhibit 5

*Top-left panel*

(25)

**Title:** Cumulative Size of Exit Programs

**Series:** Survey respondents' predictions of the cumulative size of the various exit programs

**Horizon:** Q2 2010 - Q2 2012

**Description:** Survey respondents expect reverse repurchase agreements and term deposits to be ramped up to about \$250 billion between the second quarter of this year and the second quarter of next year and for asset sales to occur more slowly.

Source: Federal Reserve Bank of New York Exit Survey

*Top-right panel*

(26)

**Title:** Estimated Maximum Usage Over 6 week Period

**Series:** Survey respondents' predictions of the amount of liquidity which could be drained if necessary over a 6 week period without causing significant market disruption

**Horizon:** N/A

**Description:** Survey respondents expect \$200 billion could be drained by reverse repos and another \$200 billion could be drained by the term deposit facility over a 6 week period.

Source: Federal Reserve Bank of New York Exit Survey

*Middle-left panel*

(27)

**Title:** Probability of Reinvestment of Maturing Securities

**Series:** Survey respondents' predictions of the redemption policy to be taken with SOMA assets.

**Horizon:** N/A

**Description:** The majority of respondents expect the Fed either not to reinvest or only partially to reinvest its holdings of agency debt and MBS.

Source: Federal Reserve Bank of New York Exit Survey

*Middle-right panel*

(28)

**Title:** Expected Level of Reserves at First Tightening

**Series:** Survey respondents' predictions of the level of reserves at the time of the first target rate hike.

**Horizon:** N/A

**Description:** There is a wide range of expectations for the level of reserves at the first tightening, with most expectations concentrated within the \$400 billion to \$1 trillion range.

Source: Federal Reserve Bank of New York Exit Survey

*Middle-left panel*

(29)

**Title:** Expected Impact of Reverse Repos and Term Deposit Facility

**Series:** Survey respondents' predictions of the impact of reverse repos and the term deposit facility.

**Horizon:** N/A

**Description:** Survey respondents expect reverse repos and the term deposit facility to improve the FOMC's control of short-term interest rates and to contain inflation expectations.

Source: Federal Reserve Bank of New York Exit Survey

*Middle-right panel*

(30) *Spread between Implied IOER and Federal Funds Effective Rate (in BPS)\**

IOER Rate	Level of Excess Reserves		
	\$1 Trillion	\$500 Billion	\$0 - \$25 Billion
25 BPS	10	5-7	0
100 BPS	15-29	10-20	0
200 BPS	20-50	10-25	0

\* Includes 25<sup>th</sup> to 75<sup>th</sup> percentile of responses [Return to text](#)

Source: Federal Reserve Bank of New York Exit Survey

## Appendix 2: Materials used by Messrs. Clouse and Hilton

### ***Material for Briefing on Strategies for the Removal of Policy Accommodation***

Jim Clouse  
Spence Hilton  
January 26, 2010

## Update on Reserve-Draining Tools

- Capability to conduct RRP with MBS anticipated in late March.
- Capability to conduct RRP with expanded counterparties anticipated in late spring.
- TDF
  - Public comments due February 1
  - Board could issue final rule in March
  - Facility could be fully operational in May
- Capability to conduct term RRP with foreign accounts may be available in July.
- Reserve Collateral Accounts (RCAs)
  - Steering group being assembled to develop work plans.

## Hypothetical Use of Draining Tools

Reserve Balances With Alternative Assumptions  
About Reserve Draining Tools (\$ Billions)

Assumed Paths for Tools

	No Tools	RRP	RRP + TDF	RRP + TDF + Foreign RRP	RRP	TDF	Foreign RRP
<b>March</b>	1269	1249	1249	1249	20	0	0
<b>April</b>	1172	1112	1112	1112	60	0	0
<b>May</b>	1252	1132	1057	1057	120	75	0
<b>June</b>	1205	1020	870	870	185	150	0
<b>July</b>	1194	949	724	674	245	225	50
<b>August</b>	1179	874	574	474	305	300	100
<b>September</b>	1163	758	408	308	405	350	100
<b>October</b>	1149	644	294	194	505	350	100
<b>November</b>	1135	630	280	180	505	350	100
<b>December</b>	1122	617	267	167	505	350	100

See "Projections of System Capacity to Absorb Reserve Balances," by Chris Burke, Seth Carpenter, and Jane Ihrig

## Funds Rate and Reserve Demand

### *Top panel*

- What quantity of reserves must be drained to align funds rate and IOER?
- How will funds rate respond to increase in IOER?

### *Bottom-left panel*

*Figure 3. Effective federal funds rate versus excess balances*

A chart displays a scatterplot of the level of the effective federal funds rate (basis points) and the level of excess reserves (billions of dollars) over the period from December 4, 2008 to December 16, 2009. The scatterplot shows

a noticeable downward slope, suggestive of a downward sloping demand for reserves. The historical relationship in this chart suggests that the level of reserve balances might need to be returned to a level of about \$500 billion to push the federal funds rate close to the level of the interest rate on excess reserves.

See "Reserves and the Federal Funds Rate," by Gara Afonso, Chris Burke, Seth Carpenter, Jane Ihrig, Dennis Kuo, James McAndrews, John McGowan, Asani Sarkar, Jeffrey Shrader, David Skeie, and Victor Stebunovs.

### *Bottom-right panel*

#### *Spread of IOER Rate Over Funds Rate with Alternative Assumptions Regarding the Level of IOER and Excess Balances (Basis Points)*

IOER (Percent)	Level of Excess Reserves (\$ Billions)		
	1000	500	25
<b>0.25</b>	10	6	-1
<b>1.00</b>	30	17	-3
<b>2.00</b>	44	26	-3

See "Exit Strategy Survey: Themes and Messages," by Mike McMorrow, Ellen Correia, and Mike Lementowski

A table reports the results from a question posed on a recent survey of primary dealers conducted by the Federal Reserve Bank of New York. The question asked dealers how the gap between the interest rate on excess reserves and the federal funds rate would depend on the level of the interest rate on excess reserves and the level of excess reserves. In general, at low levels of reserves on the order of \$25 billion, dealers anticipated that the federal funds rate would be very close to the interest rate on excess reserves. At levels of excess reserves around \$500 billion, dealers anticipated that federal funds would trade a little below the interest rate on excess reserves. At this level of excess reserves, dealers anticipated that the gap between the interest rate on excess reserves and the federal funds rate could widen about 20 basis points as the interest rate on excess reserves is increased from 25 basis points to 200 basis points. At levels of excess reserves around \$1000 billion, dealers expected that the federal funds would generally trade below the interest rate on excess reserves. At this level of excess reserves, dealers anticipated that the gap between the interest rate on excess reserves and the federal funds rate could widen about 35 basis points as the interest rate on excess reserves is increased from 25 basis points to 200 basis points.

## Alternative Target Rates

### *Left panel*

- In some scenarios, linkage of federal funds rate to other short-term rates could be loosened.
  - But apparently not so far.
- Alternative market rates include...
  - Libor, eurodollar, repo rates
  - Institutional factors could affect choice
  - Response of rates to shocks could differ
- IOER rate could be used as primary policy instrument
  - Monitor a collection of money market rates (similar to BoE).
  - Still questions about connection between IOER and market rates
  - Governance issues in determination of IOER rate

### *Right panel*

## *Selected Short-Term Interest Rates, June 1, 2008 to present*

A line chart shows that, to date, the federal funds rate has remained close to other short-term market rates. However, if the federal funds rate became less reliable as a guide for policy, the Committee might consider alternative short-term market interest rates such as LIBOR, Eurodollar rates or repo rates for this purpose. Choosing a rate to replace the federal funds rate as a guide for monetary policy would require analysis of a number of issues including institutional factors affecting individual rates and differences in the way that alternative rates respond to changes in the economic outlook and financial conditions. The Committee could also consider using the interest rate on excess reserves as a policy rate. This approach could be subject to pitfalls, however, if the connection between the interest rate on excess reserves and market rates is quite loose.

See "Alternative Interest Rate Operating Targets," by Tobias Adrian, Haley Boesky, David Bowman, Chris Burke, Seth Carpenter, Margaret DeBoer, Michiel DePooter, Spence Hilton, Jane Ihrig, Mike Leahy, James McAndrews, Steve Meyer, Edward Nelson, Michael Palumbo, Roberto Perli, and Matthew Raskin.

## Foreign Experience with Interest on Reserves

- Most policy rate floors are effective
  - But somewhat less so in United Kingdom
  - Foreign experience (like U.S. experience) indicates that effectiveness of floor depends on scope of access to central bank accounts
- Central banks with "floor systems" have been able to tighten policy by raising IOER or deposit rate even with substantial excess reserves.
  - Norges Bank has tightened policy with high reserves.
- Caveat
  - Experience in other countries may be an imperfect guide to likely outcomes in the United States.

See "Interest on Excess Reserves as a Monetary Policy Instrument: The Experience of Foreign Central Banks," by David Bowman, Etienne Gagnon, and Mike Leahy.

## Long-Run Balance Sheet Management Issues

- Long-run policy implementation framework
  - Move away from mandatory reserve requirements?
  - Adopt corridor or floor system?
- Long-run size of the balance sheet
  - Could be used actively to pursue macro objectives
- Long-run composition of the balance sheet
  - Return to Treasuries only?
  - Shorten average maturity to increase liquidity?

See "Balance Sheet Management Issues in the Longer Term," by Jim Clouse, Spence Hilton, and Steve Meyer.

## Asset Sales Strategies

*Top panel*

## Domestic SOMA Assets and Reserves

(billions of dollars) [Note: In the table data, strong emphasis (bold) indicates red text in the original document.]

SOMA Assets	Levels		Potential for Cumulative Redemptions, from 2010-Q2					
	2007-Q2	2010-Q2	2010-Q4	2011-Q4	2012-Q4	2013-Q4	2014-Q4	2015-Q4
Agency MBS	0	1,135	<b>-45</b>	<b>-120</b>	<b>-185</b>	<b>-245</b>	<b>-300</b>	<b>-365</b>
Agency Debt	0	170	<b>-20</b>	<b>-60</b>	<b>-85</b>	<b>-105</b>	<b>-125</b>	<b>-130</b>
Treasury Debt	791	775	<b>-85</b>	<b>-155</b>	<b>-290</b>	<b>-345</b>	<b>-415</b>	<b>-440</b>
Memo: Reserves	17	1,260						

### Middle-left panel

#### Motivations for SOMA Asset Sales and Redemptions

- Reduce Excess Reserves
- Unwind Portfolio Balance Effects on Longer Term Rates
- Rebalance the SOMA Portfolio

### Middle-right panel

#### Risks of Aggressive Asset Sales

- Uncertainty about Rate Effects of Asset Sales
- Announcement Effect Could Cause an Immediate, Sharp Rise in Long-Term Interest Rates
- Possible Impact on Market Liquidity and Function
- Potential for Sizable Capital Losses

### Bottom panel

#### Federal Reserve Balance Sheet Assets under Alternative SOMA Reduction Strategies

(from "Strategies for Asset Sales and Redemptions," Keane, Lucca, Remache, and Sack)

	2010:Q2	2010:Q4	2011:Q4	2012:Q4	2013:Q4	2014:Q4	2015:Q4
Rapid Asset Sales <sup>1</sup>	2,346	1,666	1,040	1,096	1,153	1,215	1,266
Redemptions Only <sup>2</sup>	2,346	2,256	2,111	1,969	1,877	1,775	1,703
Steady and Gradual Reduction <sup>3</sup>	2,346	2,097	1,850	1,581	1,351	1,215	1,266
State-dependent Reduction <sup>4</sup>	-	-	-	-	-	-	-

## Alternative Sequencing Strategies

### Left panel

#### Alternative Sequencing Strategies

(from "Strategies for Sequencing the Use of Reserve Draining Tools and Changes in Policy Rates," Clouse and Hilton)

Strategy	Potential Benefits	Risks/Other Issues
<b>Ex-Post Contingent Reserve Drain</b>	<ul style="list-style-type: none"> <li>• Allows a clear test of whether draining tools are necessary, and could avoid their use altogether.</li> <li>• Relatively simple</li> </ul>	<ul style="list-style-type: none"> <li>• Risks some period in which funds rate could be well below the IOER rate.</li> </ul>

	communications strategy.	
<b>Early Reserve Drain</b>	<ul style="list-style-type: none"> <li>• Reduces risk that funds rate will be volatile or trade below IOER rate when policy is first tightened.</li> <li>• Early reduction in reserve balances could help to contain inflation expectations, either by demonstrating the Fed has well developed exit capabilities or operating through a reserve channel.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential communication challenges in avoiding impression that increases in IOER and FFT rates may be imminent.</li> <li>• Necessarily entails use of temporary reserve draining tools, with a need for clear operating objectives in the pretightening interval.</li> </ul>
<b>Concurrent Reserve Drain</b>	<ul style="list-style-type: none"> <li>• Relatively simple communications strategy.</li> </ul>	<ul style="list-style-type: none"> <li>• Necessarily entails use of temporary reserve draining tools.</li> <li>• May not reduce the risk that the funds rate could trade well below the IOER rate for some period if IOER is not effective and reserve draining tools cannot be ramped up quickly without complications.</li> </ul>

### *Right panel*

#### *Criteria for Choosing Among Sequencing Strategies*

- Degree of confidence about using IOER rate by itself to control short-term rates.
- Possibility of other benefits from draining reserves.
- Expected time frame for draining significant reserves without complications.
- Communications challenges with early reserve drain strategy.
- Costs and risks of draining operations which could prove unnecessary.

## Possible Questions for Committee Discussion of Strategies for Removing Policy Accommodation

Over the next year, how should asset sales be used as part of the exit strategy?

- Relatively rapid sales (say, over \$200 billion)
- Very gradual sales over the next year (\$0 to \$200 billion)
- Redemptions only
- State contingent sales (and/or purchases)

How should redemptions of existing SOMA holdings proceed over the next year?

- Redeem all agency and MBS and no Treasuries
- Redeem all agency and MBS and some Treasuries
- Redeem all agency and MBS and all Treasuries
- Redeem some agency and MBS and no Treasuries
- Redeem nothing

How should the use of reverse repos (RRPs) and term deposits (TDs) be sequenced relative to an increase in the IOER rate?

- Use RRP and TDs only if necessary after an increase in the IOER rate (ex-post contingent strategy)

- Use RRP and TDs before an increase in the IOER rate (ex-ante strategy)
- Use RRP and TDs concurrent with increase in IOER rate

In order to ensure that increases in the IOER rate provide a sufficient tightening of money market conditions, what volume of reserves (if any) should be drained in advance of the first IOER increase?

What structure for the Federal Reserve balance sheet would you favor in the long run?

- All Treasuries, spread across all maturities (as in previous practice)
- All Treasuries, but concentrated in bills and short-term coupons
- Treasuries, agencies, and MBS
- Other: [blank space]

How concerned are you that the characteristics of the federal funds rate as an operating target will deteriorate significantly? Do you see strong advantages in retaining a market interest rate as an operating target? Do you see other interest rates as particularly suitable replacements for the funds rate as an operating target?

Will the Committee need to determine its longer-run operating framework far in advance in order to implement an effective exit strategy from the current period of extraordinary policy accommodation?

## Appendix 3: Materials used by Messrs. Sichel, Palumbo, and Sheets

Material for **Staff Presentation on the Economic Outlook**  
January 26, 2010

Class II FOMC - Restricted (FR)

### Exhibit 1 Near-term Outlook

#### *Top-left panel* *Real GDP*

Percent change, annual rate

	GDP	Dec GB
2009:Q3	2.24	2.46
2009:Q4	5.29	3.83
2010:Q1	2.76	3.61

#### *Top-right panel* *Contributions to Real GDP Growth*

(Percentage points, annual rate)

		2009 Q4	2010 Q1
1.	Final sales	1.6	2.5
2.	Dec. GB	1.5	2.6
3.	Inventories	3.7	0.3
4.	Dec. GB	2.3	1.0

*Middle-left panel*  
*Real Inventory Investment*

Billions of chained (2005) dollars

Period	Jan. GB	Dec. GB
2006:Q1	65.81	65.81
2006:Q2	72.54	72.54
2006:Q3	67.51	67.51
2006:Q4	31.83	31.83
2007:Q1	14.46	14.46
2007:Q2	23.30	23.30
2007:Q3	29.80	29.80
2007:Q4	10.32	10.32
2008:Q1	0.62	0.62
2008:Q2	-37.09	-37.09
2008:Q3	-29.71	-29.71
2008:Q4	-37.38	-37.38
2009:Q1	-113.89	-113.89
2009:Q2	-160.22	-160.22
2009:Q3	-139.17	-136.66
<i>Forecast</i>		
2009:Q4	-24.10	-66.50
2010:Q1	-15.62	-33.76
2010:Q2	-1.78	-15.15
2010:Q3	22.36	6.90
2010:Q4	32.02	23.57

*Middle-right panel*  
*Inventory Adjustments*

- Slowdown in pace of liquidation sooner than expected.
- Firms have pulled forward production adjustments.

*Bottom-left panel*  
*Real PCE Goods*

Billions of chained (2005) dollars

Period	Real PCE Goods
January 2006	3149.88
February 2006	3143.08
March 2006	3144.12
April 2006	3158.07
May 2006	3142.07
June 2006	3152.28
July 2006	3180.22
August 2006	3158.76

September 2006	3190.23
October 2006	3210.08
November 2006	3209.05
December 2006	3248.50
January 2007	3254.44
February 2007	3243.70
March 2007	3263.48
April 2007	3248.21
May 2007	3266.66
June 2007	3251.38
July 2007	3265.85
August 2007	3275.27
September 2007	3300.70
October 2007	3304.04
November 2007	3311.46
December 2007	3299.03
January 2008	3272.83
February 2008	3244.67
March 2008	3268.69
April 2008	3263.41
May 2008	3261.39
June 2008	3248.69
July 2008	3201.11
August 2008	3219.96
September 2008	3159.87
October 2008	3126.23
November 2008	3131.30
December 2008	3073.55
January 2009	3128.82
February 2009	3141.29
March 2009	3119.17
April 2009	3094.93
May 2009	3105.96
June 2009	3114.74
July 2009	3130.33
August 2009	3213.40
September 2009	3135.38
October 2009	3160.21
November 2009	3192.56
<i>Staff estimates</i>	
December 2009	3198.82
January 2010	3199.95
February 2010	3216.85
March 2010	3231.75

### Quarterly averages

Billions of chained (2005) dollars

Period	Real PCE Goods
2006:Q1	3145.69
2006:Q2	3150.81
2006:Q3	3176.40
2006:Q4	3222.54
2007:Q1	3253.87
2007:Q2	3255.42
2007:Q3	3280.61
2007:Q4	3304.85
2008:Q1	3262.06
2008:Q2	3257.83
2008:Q3	3193.64
2008:Q4	3110.36
2009:Q1	3129.76
2009:Q2	3105.21
2009:Q3	3159.70
<i>Staff estimates</i>	
2009:Q4	3183.86
2010:Q1	3216.18

### *Bottom-right panel* *Orders and Shipments\**

Billions of dollars

Period	Orders	Shipments
January 2006	62.76	60.39
February 2006	63.06	60.93
March 2006	65.65	62.35
April 2006	63.34	62.14
May 2006	64.54	62.75
June 2006	64.86	62.55
July 2006	64.17	62.11
August 2006	64.48	63.25
September 2006	67.41	62.44
October 2006	65.30	61.48
November 2006	65.64	62.46
December 2006	65.51	62.83
January 2007	61.79	59.20
February 2007	61.10	60.43
March 2007	63.53	61.42
April 2007	64.45	61.59

May 2007	63.20	61.94
June 2007	62.54	61.87
July 2007	62.07	60.21
August 2007	63.43	62.53
September 2007	62.91	62.97
October 2007	62.52	62.02
November 2007	62.33	61.94
December 2007	65.89	63.74
January 2008	64.99	62.66
February 2008	64.08	61.70
March 2008	63.84	63.22
April 2008	65.47	63.11
May 2008	65.28	63.58
June 2008	65.33	63.65
July 2008	65.12	63.13
August 2008	64.17	62.42
September 2008	61.64	63.51
October 2008	57.90	60.58
November 2008	58.68	59.75
December 2008	55.34	60.24
January 2009	48.55	54.00
February 2009	49.73	53.82
March 2009	49.77	53.27
April 2009	48.30	52.16
May 2009	50.15	51.91
June 2009	52.21	52.78
July 2009	51.80	53.10
August 2009	51.05	52.17
September 2009	52.87	52.44
October 2009	51.92	52.69
November 2009	53.30	53.27
<i>Staff estimate</i>		
December 2009	ND	53.34
January 2010	ND	52.89
February 2010	ND	53.59
March 2010	ND	54.03

\* Nondefense capital goods excluding aircraft. [Return to text](#)

## Exhibit 2 Medium-term Outlook

*Top-left panel*

## *Real GDP*

Percent change, annual rate

Period	Real GDP	December GB
2009:H1	-3.63	-3.63
2009:H2	3.75	3.14
2010	3.61	3.63
2011	4.73	4.51

### *Top-right panel*

#### *Factors Contributing to Recovery*

- Accommodative monetary policy.
- Financial conditions more supportive of growth.
- Reduced drag from past declines in wealth.
- Improvement in confidence.

### *Middle-left panel*

#### *Real Final Sales: Looking Back to June 2009*

Percent change, annual rate

Period	Final Sales	June GB
2009:H1	-1.75	-1.61
2009:H2	1.50	-0.62
2010	3.16	2.60

### *Middle-right panel*

#### *Changes in the Outlook since June*

##### Positives

- Financial conditions
- Fiscal stimulus
- Foreign growth and dollar

##### Negatives

- Labor markets

### *Bottom-left panel*

#### *Financials: 2010:Q1 Value versus June Greenbook*

1. Stock market	+17 percent
2. BBB bond yield	-140 basis points
3. House prices	+8 percent
4. Mortgage rates	-20 basis points

### *Bottom-right panel*

## *Total Hours\**

Index, 2006:Q1 = 100

Period	January GB	June GB
2006:Q1	100.00	ND
2006:Q2	100.10	ND
2006:Q3	100.56	ND
2006:Q4	101.01	ND
2007:Q1	100.94	ND
2007:Q2	101.16	ND
2007:Q3	100.78	ND
2007:Q4	100.73	ND
2008:Q1	100.31	ND
2008:Q2	99.88	ND
2008:Q3	98.88	ND
2008:Q4	96.75	ND
2009:Q1	94.49	94.54
2009:Q2	92.67	93.13
2009:Q3	91.58	92.91
2009:Q4	91.73	93.03
<i>Forecast</i>		
2010:Q1	92.25	93.30
2010:Q2	93.00	93.75
2010:Q3	93.94	94.27
2010:Q4	94.99	94.86

\* Nonfarm business sector. [Return to text](#)

## Exhibit 3 Household Finance and Consumer Spending

### *Top-left panel Personal Saving Rate*

Period	Percent of disposable income
1999:Q1	4.30
1999:Q2	3.00
1999:Q3	2.40
1999:Q4	2.60
2000:Q1	3.10
2000:Q2	3.10
2000:Q3	3.10
2000:Q4	2.40
2001:Q1	2.80

2001:Q2	2.10
2001:Q3	4.20
2001:Q4	1.60
2002:Q1	4.00
2002:Q2	4.00
2002:Q3	3.10
2002:Q4	3.10
2003:Q1	3.10
2003:Q2	3.50
2003:Q3	3.60
2003:Q4	3.60
2004:Q1	3.20
2004:Q2	3.60
2004:Q3	3.30
2004:Q4	3.60
2005:Q1	1.60
2005:Q2	1.30
2005:Q3	1.20
2005:Q4	1.50
2006:Q1	2.20
2006:Q2	2.50
2006:Q3	2.30
2006:Q4	2.50
2007:Q1	2.00
2007:Q2	1.80
2007:Q3	1.60
2007:Q4	1.50
2008:Q1	1.20
2008:Q2	3.40
2008:Q3	2.20
2008:Q4	3.80
2009:Q1	3.70
2009:Q2	5.40
2009:Q3	4.50
<i>Forecast</i>	
2009:Q4	4.27
2010:Q1	4.32
2010:Q2	3.75
2010:Q3	3.85
2010:Q4	3.99
2011:Q1	3.75
2011:Q2	3.77
2011:Q3	3.89
2011:Q4	3.99

*Top-right panel*  
*Household Debt*

Period	Percent change, annual rate
1999:Q1	9.12
1999:Q2	7.94
1999:Q3	8.90
1999:Q4	6.49
2000:Q1	8.22
2000:Q2	9.46
2000:Q3	8.59
2000:Q4	8.90
2001:Q1	9.11
2001:Q2	10.32
2001:Q3	8.96
2001:Q4	8.77
2002:Q1	10.30
2002:Q2	9.89
2002:Q3	9.48
2002:Q4	11.78
2003:Q1	10.82
2003:Q2	13.01
2003:Q3	11.26
2003:Q4	9.91
2004:Q1	10.01
2004:Q2	11.37
2004:Q3	9.31
2004:Q4	11.90
2005:Q1	9.17
2005:Q2	11.12
2005:Q3	11.24
2005:Q4	11.02
2006:Q1	11.35
2006:Q2	11.15
2006:Q3	8.55
2006:Q4	7.59
2007:Q1	6.95
2007:Q2	7.19
2007:Q3	5.87
2007:Q4	5.92
2008:Q1	3.09
2008:Q2	0.11
2008:Q3	-0.54
2008:Q4	-1.90

2009:Q1	-1.22
2009:Q2	-1.63
2009:Q3	-2.66
<i>Forecast</i>	
2009:Q4	-2.15
2010:Q1	-0.62
2010:Q2	-0.04
2010:Q3	0.51
2010:Q4	1.01
2011:Q1	1.51
2011:Q2	1.87
2011:Q3	2.21
2011:Q4	2.52

*Middle-left panel*  
*Household Debt Service*

Period	Percent of disposable income
1980:Q1	11.21
1980:Q2	11.19
1980:Q3	10.91
1980:Q4	10.61
1981:Q1	10.65
1981:Q2	10.78
1981:Q3	10.65
1981:Q4	10.70
1982:Q1	10.76
1982:Q2	10.80
1982:Q3	10.70
1982:Q4	10.64
1983:Q1	10.60
1983:Q2	10.61
1983:Q3	10.61
1983:Q4	10.67
1984:Q1	10.70
1984:Q2	10.84
1984:Q3	10.94
1984:Q4	11.07
1985:Q1	11.41
1985:Q2	11.50
1985:Q3	11.86
1985:Q4	11.97
1986:Q1	11.99
1986:Q2	12.08

1986:Q3	12.22
1986:Q4	12.38
1987:Q1	12.22
1987:Q2	12.38
1987:Q3	12.25
1987:Q4	12.08
1988:Q1	12.03
1988:Q2	12.01
1988:Q3	11.98
1988:Q4	11.85
1989:Q1	11.83
1989:Q2	12.02
1989:Q3	12.11
1989:Q4	12.12
1990:Q1	12.05
1990:Q2	12.02
1990:Q3	12.02
1990:Q4	12.03
1991:Q1	11.99
1991:Q2	11.83
1991:Q3	11.73
1991:Q4	11.53
1992:Q1	11.30
1992:Q2	11.14
1992:Q3	10.99
1992:Q4	10.81
1993:Q1	10.99
1993:Q2	10.80
1993:Q3	10.85
1993:Q4	10.73
1994:Q1	10.86
1994:Q2	10.86
1994:Q3	10.96
1994:Q4	11.06
1995:Q1	11.25
1995:Q2	11.47
1995:Q3	11.59
1995:Q4	11.67
1996:Q1	11.69
1996:Q2	11.73
1996:Q3	11.80
1996:Q4	11.87
1997:Q1	11.83
1997:Q2	11.86

1997:Q3	11.89
1997:Q4	11.85
1998:Q1	11.73
1998:Q2	11.76
1998:Q3	11.76
1998:Q4	11.81
1999:Q1	11.88
1999:Q2	12.03
1999:Q3	12.16
1999:Q4	12.13
2000:Q1	12.04
2000:Q2	12.20
2000:Q3	12.36
2000:Q4	12.59
2001:Q1	12.66
2001:Q2	12.86
2001:Q3	12.73
2001:Q4	13.10
2002:Q1	12.95
2002:Q2	13.01
2002:Q3	13.17
2002:Q4	13.24
2003:Q1	13.26
2003:Q2	13.21
2003:Q3	13.14
2003:Q4	13.19
2004:Q1	13.22
2004:Q2	13.19
2004:Q3	13.34
2004:Q4	13.29
2005:Q1	13.65
2005:Q2	13.76
2005:Q3	13.65
2005:Q4	13.75
2006:Q1	13.70
2006:Q2	13.76
2006:Q3	13.84
2006:Q4	13.85
2007:Q1	13.83
2007:Q2	13.86
2007:Q3	13.91
2007:Q4	13.88
2008:Q1	13.91

2008:Q2	13.47
2008:Q3	13.61
2008:Q4	13.57
2009:Q1	13.47
2009:Q2	13.05
2009:Q3	12.85
2009:Q4	12.62
<i>Forecast</i>	
2010:Q1	12.39
2010:Q2	12.32
2010:Q3	12.18
2010:Q4	12.07
2011:Q1	12.02
2011:Q2	11.96
2011:Q3	11.90
2011:Q4	11.87

*Middle-right panel*  
*Household Net Worth*

Period	Ratio to disposable income
1988:Q1	4.81
1988:Q2	4.84
1988:Q3	4.81
1988:Q4	4.82
1989:Q1	4.82
1989:Q2	4.89
1989:Q3	4.97
1989:Q4	4.96
1990:Q1	4.86
1990:Q2	4.85
1990:Q3	4.70
1990:Q4	4.76
1991:Q1	4.87
1991:Q2	4.82
1991:Q3	4.83
1991:Q4	4.89
1992:Q1	4.78
1992:Q2	4.73
1992:Q3	4.73
1992:Q4	4.76
1993:Q1	4.87
1993:Q2	4.81
1993:Q3	4.87

1993:Q4	4.86
1994:Q1	4.85
1994:Q2	4.78
1994:Q3	4.79
1994:Q4	4.74
1995:Q1	4.79
1995:Q2	4.89
1995:Q3	4.98
1995:Q4	5.05
1996:Q1	5.08
1996:Q2	5.10
1996:Q3	5.10
1996:Q4	5.11
1997:Q1	5.08
1997:Q2	5.32
1997:Q3	5.44
1997:Q4	5.41
1998:Q1	5.58
1998:Q2	5.60
1998:Q3	5.34
1998:Q4	5.69
1999:Q1	5.74
1999:Q2	5.92
1999:Q3	5.79
1999:Q4	6.16
2000:Q1	6.17
2000:Q2	6.02
2000:Q3	5.97
2000:Q4	5.73
2001:Q1	5.47
2001:Q2	5.64
2001:Q3	5.26
2001:Q4	5.53
2002:Q1	5.44
2002:Q2	5.21
2002:Q3	5.00
2002:Q4	5.11
2003:Q1	5.07
2003:Q2	5.25
2003:Q3	5.28
2003:Q4	5.50
2004:Q1	5.60
2004:Q2	5.62
2004:Q3	5.61

2004:Q4	5.79
2005:Q1	5.96
2005:Q2	6.07
2005:Q3	6.20
2005:Q4	6.28
2006:Q1	6.39
2006:Q2	6.25
2006:Q3	6.25
2006:Q4	6.38
2007:Q1	6.34
2007:Q2	6.38
2007:Q3	6.32
2007:Q4	6.10
2008:Q1	5.80
2008:Q2	5.48
2008:Q3	5.26
2008:Q4	4.77
2009:Q1	4.51
2009:Q2	4.64
2009:Q3	4.88
2009:Q4	4.88
<i>Forecast</i>	
2010:Q1	4.89
2010:Q2	4.92
2010:Q3	4.93
2010:Q4	4.93
2011:Q1	4.97
2011:Q2	4.98
2011:Q3	5.00
2011:Q4	5.03

Average from 1960 to 2009 is about 4.94.

*Bottom-left panel*  
*Real Personal Consumption Expenditures*

Billions of dollars

Period	History and January GB forecast	Simulation based on wealth, income, and interest rates
2006:Q1	8986.63	8986.63
2006:Q2	9035.05	9035.05
2006:Q3	9090.71	9090.71
2006:Q4	9181.62	9181.62
2007:Q1	9265.14	9265.14
2007:Q2	9291.50	9335.56
2007:Q3	9335.58	9400.90

2007:Q4	9363.56	9462.01
2008:Q1	9349.57	9507.43
2008:Q2	9350.97	9537.85
2008:Q3	9267.71	9560.74
2008:Q4	9195.29	9570.30
2009:Q1	9209.21	9566.47
2009:Q2	9189.04	9560.73
2009:Q3	9252.59	9556.91
2009:Q4	9300.82	9555.00
<i>Forecast</i>		
2010:Q1	9363.97	9573.15
2010:Q2	9427.66	9592.30
2010:Q3	9495.10	9621.08
2010:Q4	9562.05	9659.56
2011:Q1	9639.25	9709.79
2011:Q2	9725.44	9761.25
2011:Q3	9818.67	9814.94
2011:Q4	9916.09	9877.76

### *Bottom-right panel*

#### *Discussion*

- Consumer spending dropped far below the simulation in 2008 and early 2009.
- Sharp tightening in credit and heightened anxiety about depth of recession and job loss played important roles in "shortfall."
- We expect spending to continue to accelerate this year and in 2011.

## Exhibit 4

### Real Estate Markets and Construction Activity

#### *Top-left panel*

#### *Existing Home Prices*

Index, 2006:Q1 = 100

Period	LP national index
2003:Q1	67.6
2003:Q2	68.9
2003:Q3	70.9
2003:Q4	72.8
2004:Q1	76.1
2004:Q2	79.3
2004:Q3	81.9
2004:Q4	84.9
2005:Q1	89.6

2005:Q2	92.7
2005:Q3	95.7
2005:Q4	98.1
2006:Q1	100.0
2006:Q2	99.6
2006:Q3	99.2
2006:Q4	99.9
2007:Q1	97.6
2007:Q2	95.8
2007:Q3	92.8
2007:Q4	89.8
2008:Q1	85.3
2008:Q2	81.4
2008:Q3	77.3
2008:Q4	72.2
2009:Q1	66.5
2009:Q2	68.7
2009:Q3	70.0
<i>Forecast</i>	
2009:Q4	68.8
2010:Q1	67.8
2010:Q2	67.3
2010:Q3	67.1
2010:Q4	67.1
2011:Q1	67.1
2011:Q2	67.2
2011:Q3	67.4
2011:Q4	67.5

[Inset:] Percent change, a.r.

Percent change, a.r.

2009:H1:	-9.5
Q3:	7.5
Q4 <sup>P</sup> :	-6.7

*Top-right panel*

*Foreclosure Starts and Vacant Homes*

Period	Foreclosure starts (Thousands of units)	Homeowner vacancy rate (Percent)
2003:Q1	194.79	1.71
2003:Q2	171.13	1.75
2003:Q3	202.69	1.89

2003:Q4	241.61	1.76
2004:Q1	239.46	1.70
2004:Q2	210.39	1.75
2004:Q3	220.65	1.69
2004:Q4	244.28	1.76
2005:Q1	222.98	1.79
2005:Q2	206.94	1.86
2005:Q3	221.61	1.90
2005:Q4	226.71	1.96
2006:Q1	231.91	2.08
2006:Q2	216.56	2.27
2006:Q3	243.36	2.50
2006:Q4	311.10	2.64
2007:Q1	320.72	2.76
2007:Q2	321.66	2.69
2007:Q3	423.59	2.71
2007:Q4	475.64	2.74
2008:Q1	532.82	2.85
2008:Q2	572.54	2.90
2008:Q3	568.26	2.81
2008:Q4	573.97	2.84
2009:Q1	717.06	2.65
2009:Q2	711.30	2.59
2009:Q3	748.99	2.61
<i>Forecast</i>		
2009:Q4	770.70	ND
2010:Q1	689.90	ND
2010:Q2	676.50	ND
2010:Q3	668.50	ND
2010:Q4	659.40	ND
2011:Q1	648.80	ND
2011:Q2	635.10	ND
2011:Q3	625.10	ND
2011:Q4	610.80	ND

*Middle-left panel*  
*Housing Demand*

- Existing home sales rose noticeably over the second half of last year.
- Demand lifted by low mortgage rates and low home prices.
- A growing sense that prices may have bottomed out and a gradual increase in employment should contribute to rising demand.

*Middle-right panel*  
*Single-family Construction*

Millions of units

Period	New home sales	Housing starts for sale	Liquidation (approximate) [new home sales minus housing starts for sale]
2006:Q1	1.12	1.28	ND
2006:Q2	1.09	1.15	ND
2006:Q3	1.01	0.98	ND
2006:Q4	0.98	0.89	ND
2007:Q1	0.85	0.89	ND
2007:Q2	0.84	0.83	0.01
2007:Q3	0.72	0.66	0.06
2007:Q4	0.66	0.54	0.12
2008:Q1	0.56	0.46	0.10
2008:Q2	0.51	0.37	0.14
2008:Q3	0.46	0.30	0.16
2008:Q4	0.39	0.21	0.18
2009:Q1	0.34	0.19	0.15
2009:Q2	0.37	0.24	0.13
2009:Q3	0.41	0.29	0.12
2009:Q4	0.37	0.27	0.10
<i>Forecast</i>			
2010:Q1	0.47	0.33	0.14
2010:Q2	0.45	0.35	0.10
2010:Q3	0.46	0.42	0.04
2010:Q4	0.48	0.51	ND
2011:Q1	0.51	0.57	ND
2011:Q2	0.57	0.63	ND
2011:Q3	0.63	0.70	ND
2011:Q4	0.69	0.77	ND

[Inset:] New home inventory

(thousands)

May 2007:	545
Nov. 2009:	235

*Bottom-left panel*  
*Commercial Property\**

Period	Prices (Index, 2006:Q1 = 100)	Vacancy rates (Percent)
2000:Q1	61.93	7.93
2000:Q2	63.55	7.40
2000:Q3	64.66	7.37
2000:Q4	65.41	7.47

2001:Q1	65.26	8.03
2001:Q2	64.83	8.97
2001:Q3	64.37	9.83
2001:Q4	63.45	10.77
2002:Q1	64.29	11.43
2002:Q2	64.39	11.70
2002:Q3	65.01	11.90
2002:Q4	65.65	12.07
2003:Q1	67.08	12.27
2003:Q2	67.72	12.40
2003:Q3	68.31	12.37
2003:Q4	69.27	12.33
2004:Q1	70.36	12.20
2004:Q2	71.50	11.97
2004:Q3	73.00	11.73
2004:Q4	75.15	11.43
2005:Q1	74.84	11.23
2005:Q2	88.72	10.90
2005:Q3	92.27	10.60
2005:Q4	95.26	10.30
2006:Q1	100.00	10.27
2006:Q2	101.57	10.17
2006:Q3	104.22	10.00
2006:Q4	109.85	9.93
2007:Q1	112.43	10.07
2007:Q2	117.35	10.13
2007:Q3	116.18	10.13
2007:Q4	113.22	10.30
2008:Q1	110.31	10.60
2008:Q2	104.24	11.00
2008:Q3	103.01	11.40
2008:Q4	96.24	11.97
2009:Q1	87.98	12.80
2009:Q2	80.10	13.47
2009:Q3	76.79	13.93
<i>Forecast</i>		
2009:Q4	74.07	14.23
2010:Q1	72.21	ND
2010:Q2	71.49	ND
2010:Q3	70.96	ND
2010:Q4	70.60	ND
2011:Q1	70.43	ND
2011:Q2	70.50	ND
2011:Q3	70.67	ND

2011:Q4	71.31	ND
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\* Average of series for office, industrial, and retail properties. [Return to text](#)

*Bottom-right panel*

*Senior Loan Officer Opinion Survey*

- Respondents expecting performance of commercial mortgages to deteriorate further this year.
- Banks have continued to tighten CRE lending standards.
- Banks reported a further weakening in demand for CRE loans.

## Exhibit 5

### Business Finance and Investment

*Top-left panel*

*National Federation of Independent Business*

Percent

Period	Credit more difficult than three months ago	Planning capital expenditures in next six months
January 2000	3.88	36.67
February 2000	3.84	37.55
March 2000	3.58	36.60
April 2000	3.88	35.40
May 2000	4.37	33.63
June 2000	5.52	32.55
July 2000	5.53	33.73
August 2000	5.50	33.60
September 2000	4.92	35.02
October 2000	4.79	34.18
November 2000	5.66	34.24
December 2000	5.30	32.76
January 2001	5.45	31.68
February 2001	4.76	32.89
March 2001	4.17	32.68
April 2001	3.53	33.07
May 2001	3.06	31.30
June 2001	3.00	31.62
July 2001	3.25	30.77
August 2001	3.21	30.59
September 2001	4.93	29.89
October 2001	4.83	29.42
November 2001	4.01	28.52
December 2001	2.20	28.06
January 2002	2.02	28.08
February 2002	2.65	28.93

March 2002	3.44	30.12
April 2002	4.53	31.14
May 2002	5.14	31.67
June 2002	4.84	31.30
July 2002	4.02	31.06
August 2002	3.56	29.55
September 2002	3.24	29.76
October 2002	3.14	29.99
November 2002	1.98	30.45
December 2002	2.74	29.44
January 2003	2.92	29.16
February 2003	4.61	28.66
March 2003	4.43	27.57
April 2003	3.92	27.23
May 2003	3.19	27.42
June 2003	3.32	29.01
July 2003	3.45	28.67
August 2003	3.56	30.77
September 2003	3.20	29.82
October 2003	3.40	30.09
November 2003	3.96	27.99
December 2003	3.64	30.87
January 2004	3.16	32.36
February 2004	2.58	32.56
March 2004	2.43	31.81
April 2004	2.63	31.75
May 2004	2.58	32.79
June 2004	3.16	31.54
July 2004	3.60	31.80
August 2004	3.91	31.56
September 2004	3.79	32.58
October 2004	3.59	32.91
November 2004	3.22	32.31
December 2004	3.53	33.37
January 2005	3.74	32.88
February 2005	3.94	33.78
March 2005	3.16	33.36
April 2005	3.74	32.57
May 2005	4.28	32.78
June 2005	4.61	32.76
July 2005	4.05	32.63
August 2005	3.92	32.71
September 2005	3.98	31.73
October 2005	4.11	31.43

November 2005	4.49	31.61
December 2005	4.18	31.45
January 2006	4.69	31.99
February 2006	4.64	32.29
March 2006	5.57	31.88
April 2006	5.17	32.08
May 2006	4.93	29.83
June 2006	5.00	29.34
July 2006	5.44	29.50
August 2006	6.30	30.19
September 2006	5.53	30.91
October 2006	5.67	30.67
November 2006	5.08	30.97
December 2006	5.87	28.82
January 2007	5.32	28.04
February 2007	5.37	27.69
March 2007	5.63	30.31
April 2007	5.92	29.86
May 2007	5.90	29.58
June 2007	5.68	28.73
July 2007	5.45	28.80
August 2007	5.68	28.73
September 2007	6.77	28.74
October 2007	7.28	28.53
November 2007	7.38	27.89
December 2007	6.58	27.48
January 2008	6.68	26.45
February 2008	6.40	26.13
March 2008	6.32	24.79
April 2008	7.28	24.99
May 2008	7.86	24.69
June 2008	8.34	25.74
July 2008	8.10	24.73
August 2008	8.72	24.56
September 2008	9.74	22.55
October 2008	9.93	21.73
November 2008	10.33	20.51
December 2008	10.60	18.55
January 2009	11.70	18.26
February 2009	12.76	17.26
March 2009	12.67	17.26
April 2009	13.28	17.04
May 2009	13.85	17.75
June 2009	14.99	18.70

July 2009	15.08	18.98
August 2009	14.40	18.09
September 2009	14.05	18.06
October 2009	13.92	17.61
November 2009	14.32	17.12
December 2009	14.62	16.63

Note: Three-month moving average.

## *Top-right panel* *Corporate Bond Spreads*

Percentage points

Period	10-year BBB	10-year high yield
7 January 2000	1.45	4.23
14 January 2000	1.48	4.15
21 January 2000	1.51	4.19
28 January 2000	1.50	4.30
4 February 2000	1.45	4.39
11 February 2000	1.50	4.35
18 February 2000	1.49	4.53
25 February 2000	1.45	4.69
3 March 2000	1.63	4.81
10 March 2000	1.57	4.81
17 March 2000	1.62	5.09
24 March 2000	1.60	5.18
31 March 2000	1.82	5.60
7 April 2000	1.82	5.74
14 April 2000	1.93	5.60
21 April 2000	1.93	5.53
28 April 2000	2.05	5.39
5 May 2000	2.04	5.20
12 May 2000	2.05	5.28
19 May 2000	2.10	5.36
26 May 2000	2.19	5.65
2 June 2000	2.19	5.75
9 June 2000	2.13	5.67
16 June 2000	2.08	5.71
23 June 2000	2.05	5.57
30 June 2000	2.04	5.74
7 July 2000	2.06	5.82
14 July 2000	2.05	5.72
21 July 2000	2.02	5.80
28 July 2000	2.02	5.84
4 August 2000	2.04	6.04

11 August 2000	2.03	5.99
18 August 2000	2.03	6.02
25 August 2000	2.04	6.03
1 September 2000	2.05	5.87
8 September 2000	2.03	5.71
15 September 2000	2.04	5.67
22 September 2000	2.02	5.91
29 September 2000	1.99	6.03
6 October 2000	2.04	6.16
13 October 2000	2.07	6.48
20 October 2000	2.11	6.81
27 October 2000	2.14	6.81
3 November 2000	2.09	6.80
10 November 2000	2.08	6.83
17 November 2000	2.14	7.10
24 November 2000	2.17	7.38
1 December 2000	2.24	7.94
8 December 2000	2.24	7.95
15 December 2000	2.22	7.32
22 December 2000	2.21	7.82
29 December 2000	2.20	7.71
5 January 2001	2.21	7.55
12 January 2001	2.21	6.84
19 January 2001	2.15	6.78
26 January 2001	2.12	6.57
2 February 2001	2.10	6.39
9 February 2001	2.08	6.30
16 February 2001	2.05	6.10
23 February 2001	2.12	6.26
2 March 2001	2.11	6.24
9 March 2001	2.12	6.15
16 March 2001	2.12	6.51
23 March 2001	2.15	6.80
30 March 2001	2.12	6.64
6 April 2001	2.14	7.07
13 April 2001	2.15	6.78
20 April 2001	2.13	6.65
27 April 2001	2.07	6.59
4 May 2001	1.97	6.33
11 May 2001	1.99	6.14
18 May 2001	1.92	6.27
25 May 2001	1.92	6.17
1 June 2001	1.90	6.09

8 June 2001	1.87	6.19
15 June 2001	1.89	6.32
22 June 2001	1.94	6.60
29 June 2001	1.92	6.36
6 July 2001	1.95	6.34
13 July 2001	1.97	6.38
20 July 2001	1.98	6.52
27 July 2001	1.98	6.56
3 August 2001	1.92	6.16
10 August 2001	1.92	6.28
17 August 2001	1.93	6.46
24 August 2001	1.96	6.37
31 August 2001	1.97	6.20
7 September 2001	1.97	6.31
14 September 2001	1.97	8.50
21 September 2001	2.21	7.15
28 September 2001	2.20	7.71
5 October 2001	2.17	7.40
12 October 2001	2.16	6.92
19 October 2001	2.16	6.87
26 October 2001	2.19	6.84
2 November 2001	2.26	6.60
9 November 2001	2.27	6.50
16 November 2001	2.18	5.88
23 November 2001	2.07	5.66
30 November 2001	2.03	5.64
7 December 2001	1.98	5.39
14 December 2001	2.00	5.73
21 December 2001	2.02	5.84
28 December 2001	1.96	5.75
4 January 2002	2.05	5.37
11 January 2002	2.11	5.61
18 January 2002	2.15	5.74
25 January 2002	2.10	5.60
1 February 2002	2.17	5.50
8 February 2002	2.30	5.72
15 February 2002	2.29	5.81
22 February 2002	2.36	5.93
1 March 2002	2.26	5.55
8 March 2002	2.15	4.97
15 March 2002	2.19	4.91
22 March 2002	2.17	4.83
29 March 2002	2.17	4.93
5 April 2002	2.18	5.13

12 April 2002	2.21	5.22
19 April 2002	2.18	5.04
26 April 2002	2.24	5.28
3 May 2002	2.35	4.94
10 May 2002	2.37	5.03
17 May 2002	2.31	5.18
24 May 2002	2.34	5.26
31 May 2002	2.12	5.46
7 June 2002	2.12	5.44
14 June 2002	2.20	5.90
21 June 2002	2.31	6.27
28 June 2002	2.48	6.72
5 July 2002	2.51	6.13
12 July 2002	2.49	6.43
19 July 2002	2.59	6.51
26 July 2002	2.78	7.09
2 August 2002	2.75	7.12
9 August 2002	2.88	7.30
16 August 2002	2.89	7.30
23 August 2002	2.71	7.07
30 August 2002	2.72	6.99
6 September 2002	2.78	7.13
13 September 2002	2.78	8.88
20 September 2002	2.80	7.43
27 September 2002	2.89	7.66
4 October 2002	2.89	7.92
11 October 2002	3.14	8.23
18 October 2002	3.14	7.84
25 October 2002	3.11	7.74
1 November 2002	2.98	7.55
8 November 2002	2.82	7.48
15 November 2002	2.76	7.08
22 November 2002	2.54	6.74
29 November 2002	2.54	6.57
6 December 2002	2.50	7.41
13 December 2002	2.51	6.70
20 December 2002	2.39	6.74
27 December 2002	2.40	6.85
3 January 2003	2.36	6.43
10 January 2003	2.25	5.93
17 January 2003	2.33	6.07
24 January 2003	2.38	6.17
31 January 2003	2.36	6.17

7 February 2003	2.32	6.25
14 February 2003	2.36	6.42
21 February 2003	2.33	6.31
28 February 2003	2.29	6.30
7 March 2003	2.32	6.38
14 March 2003	2.31	6.23
21 March 2003	2.22	5.77
28 March 2003	2.13	5.80
4 April 2003	2.06	5.45
11 April 2003	2.05	5.46
18 April 2003	1.99	5.38
25 April 2003	1.85	5.13
2 May 2003	1.81	4.87
9 May 2003	1.76	5.15
16 May 2003	1.81	5.33
23 May 2003	1.85	5.60
30 May 2003	1.82	5.54
6 June 2003	1.78	5.26
13 June 2003	1.77	5.36
20 June 2003	1.71	5.01
27 June 2003	1.72	4.94
4 July 2003	1.71	4.89
11 July 2003	1.67	4.84
18 July 2003	1.62	4.59
25 July 2003	1.59	4.45
1 August 2003	1.63	4.54
8 August 2003	1.66	4.87
15 August 2003	1.66	4.75
22 August 2003	1.61	4.48
29 August 2003	1.60	4.34
5 September 2003	1.60	4.30
12 September 2003	1.57	4.31
19 September 2003	1.50	4.27
26 September 2003	1.53	4.41
3 October 2003	1.52	4.16
10 October 2003	1.49	4.03
17 October 2003	1.41	3.81
24 October 2003	1.46	4.02
31 October 2003	1.43	3.88
7 November 2003	1.41	3.71
14 November 2003	1.39	3.91
21 November 2003	1.40	3.93
28 November 2003	1.37	3.72
5 December 2003	1.33	3.62

12 December 2003	1.35	3.58
19 December 2003	1.31	3.63
26 December 2003	1.32	3.61
2 January 2004	1.30	3.38
9 January 2004	1.27	3.41
16 January 2004	1.26	3.41
23 January 2004	1.25	3.31
30 January 2004	1.28	3.45
6 February 2004	1.30	3.68
13 February 2004	1.29	3.64
20 February 2004	1.31	3.61
27 February 2004	1.33	3.73
5 March 2004	1.33	3.81
12 March 2004	1.35	3.89
19 March 2004	1.37	3.92
26 March 2004	1.38	3.90
2 April 2004	1.33	3.64
9 April 2004	1.30	3.56
16 April 2004	1.29	3.47
23 April 2004	1.27	3.38
30 April 2004	1.28	3.40
7 May 2004	1.33	3.43
14 May 2004	1.37	3.77
21 May 2004	1.38	3.70
28 May 2004	1.37	3.68
4 June 2004	1.37	3.58
11 June 2004	1.35	3.56
18 June 2004	1.35	3.59
25 June 2004	1.35	3.59
2 July 2004	1.36	3.72
9 July 2004	1.38	3.63
16 July 2004	1.34	3.64
23 July 2004	1.33	3.57
30 July 2004	1.32	3.57
6 August 2004	1.37	3.77
13 August 2004	1.35	3.76
20 August 2004	1.35	3.66
27 August 2004	1.32	3.60
3 September 2004	1.31	3.53
10 September 2004	1.28	3.55
17 September 2004	1.28	3.54
24 September 2004	1.26	3.59
1 October 2004	1.24	3.49
8 October 2004	1.21	3.44

15 October 2004	1.21	3.48
22 October 2004	1.22	3.55
29 October 2004	1.18	3.37
5 November 2004	1.14	3.11
12 November 2004	1.14	3.14
19 November 2004	1.11	3.10
26 November 2004	1.10	3.07
3 December 2004	1.09	3.07
10 December 2004	1.07	3.13
17 December 2004	1.06	3.08
24 December 2004	1.05	3.06
31 December 2004	1.05	3.06
7 January 2005	1.06	3.02
14 January 2005	1.08	3.17
21 January 2005	1.08	3.27
28 January 2005	1.06	3.23
4 February 2005	1.03	3.19
11 February 2005	1.03	3.11
18 February 2005	1.00	2.93
25 February 2005	1.00	2.90
4 March 2005	0.97	2.86
11 March 2005	0.98	2.70
18 March 2005	1.03	2.90
25 March 2005	1.08	3.04
1 April 2005	1.15	3.34
8 April 2005	1.14	3.20
15 April 2005	1.21	3.60
22 April 2005	1.20	3.56
29 April 2005	1.24	3.82
6 May 2005	1.22	3.89
13 May 2005	1.27	4.15
20 May 2005	1.28	4.17
27 May 2005	1.23	3.92
3 June 2005	1.20	3.80
10 June 2005	1.23	3.84
17 June 2005	1.23	3.78
24 June 2005	1.25	3.93
1 July 2005	1.23	3.73
8 July 2005	1.24	3.67
15 July 2005	1.20	3.47
22 July 2005	1.18	3.40
29 July 2005	1.16	3.34
5 August 2005	1.16	3.32

12 August 2005	1.19	3.43
19 August 2005	1.18	3.48
26 August 2005	1.15	3.46
2 September 2005	1.20	3.70
9 September 2005	1.22	3.62
16 September 2005	1.21	3.49
23 September 2005	1.23	3.63
30 September 2005	1.21	3.60
7 October 2005	1.23	3.69
14 October 2005	1.28	3.73
21 October 2005	1.28	3.67
28 October 2005	1.28	3.64
4 November 2005	1.26	3.51
11 November 2005	1.27	3.62
18 November 2005	1.30	3.82
25 November 2005	1.30	3.83
2 December 2005	1.29	3.69
9 December 2005	1.32	3.70
16 December 2005	1.32	3.75
23 December 2005	1.33	3.79
30 December 2005	1.34	3.83
6 January 2006	1.33	3.71
13 January 2006	1.34	3.78
20 January 2006	1.33	3.78
27 January 2006	1.29	3.58
3 February 2006	1.31	3.53
10 February 2006	1.30	3.53
17 February 2006	1.29	3.53
24 February 2006	1.26	3.46
3 March 2006	1.27	3.40
10 March 2006	1.28	3.37
17 March 2006	1.27	3.42
24 March 2006	1.30	3.34
31 March 2006	1.29	3.23
7 April 2006	1.30	3.16
14 April 2006	1.30	3.14
21 April 2006	1.30	3.15
28 April 2006	1.28	3.10
5 May 2006	1.25	3.04
12 May 2006	1.27	2.99
19 May 2006	1.31	3.22
26 May 2006	1.31	3.25
2 June 2006	1.35	3.31
9 June 2006	1.39	3.40

16 June 2006	1.42	3.40
23 June 2006	1.45	3.44
30 June 2006	1.44	3.44
7 July 2006	1.46	3.47
14 July 2006	1.47	3.58
21 July 2006	1.47	3.58
28 July 2006	1.47	3.61
4 August 2006	1.47	3.67
11 August 2006	1.47	3.61
18 August 2006	1.47	3.68
25 August 2006	1.47	3.70
1 September 2006	1.47	3.76
8 September 2006	1.46	3.69
15 September 2006	1.46	3.60
22 September 2006	1.48	3.80
29 September 2006	1.48	3.73
6 October 2006	1.48	3.65
13 October 2006	1.47	3.51
20 October 2006	1.45	3.52
27 October 2006	1.44	3.59
3 November 2006	1.41	3.53
10 November 2006	1.39	3.59
17 November 2006	1.40	3.57
24 November 2006	1.40	3.65
1 December 2006	1.42	3.77
8 December 2006	1.39	3.57
15 December 2006	1.40	3.55
22 December 2006	1.40	3.51
29 December 2006	1.39	3.42
5 January 2007	1.38	3.54
12 January 2007	1.38	3.40
19 January 2007	1.35	3.33
26 January 2007	1.34	3.21
2 February 2007	1.34	3.27
9 February 2007	1.32	3.21
16 February 2007	1.30	3.22
23 February 2007	1.28	3.19
2 March 2007	1.33	3.51
9 March 2007	1.34	3.37
16 March 2007	1.37	3.48
23 March 2007	1.38	3.37
30 March 2007	1.39	3.36
6 April 2007	1.40	3.33

13 April 2007	1.38	3.23
20 April 2007	1.37	3.21
27 April 2007	1.38	3.17
4 May 2007	1.38	3.25
11 May 2007	1.36	3.19
18 May 2007	1.36	3.06
25 May 2007	1.35	2.99
1 June 2007	1.36	2.92
8 June 2007	1.39	2.96
15 June 2007	1.38	2.97
22 June 2007	1.39	3.10
29 June 2007	1.42	3.32
6 July 2007	1.42	3.23
13 July 2007	1.44	3.38
20 July 2007	1.49	3.66
27 July 2007	1.72	4.42
3 August 2007	1.71	4.35
10 August 2007	1.68	4.14
17 August 2007	1.79	4.35
24 August 2007	1.81	4.27
31 August 2007	1.80	4.36
7 September 2007	1.84	4.48
14 September 2007	1.88	4.40
21 September 2007	1.81	4.01
28 September 2007	1.79	4.02
5 October 2007	1.74	3.89
12 October 2007	1.68	3.73
19 October 2007	1.72	4.17
26 October 2007	1.74	4.17
2 November 2007	1.81	4.39
9 November 2007	1.91	4.59
16 November 2007	1.99	4.80
23 November 2007	2.05	5.14
30 November 2007	2.12	5.12
7 December 2007	2.22	4.95
14 December 2007	2.22	4.86
21 December 2007	2.20	4.96
28 December 2007	2.19	5.00
4 January 2008	2.28	5.53
11 January 2008	2.39	5.76
18 January 2008	2.48	6.13
25 January 2008	2.52	6.10
1 February 2008	2.54	5.96
8 February 2008	2.60	6.17

15 February 2008	2.67	6.17
22 February 2008	2.71	6.17
29 February 2008	2.75	6.38
7 March 2008	2.87	6.45
14 March 2008	2.99	6.76
21 March 2008	3.09	6.87
28 March 2008	3.06	6.53
4 April 2008	3.01	6.45
11 April 2008	2.97	6.39
18 April 2008	2.91	5.96
25 April 2008	2.81	5.72
2 May 2008	2.64	5.54
9 May 2008	2.66	5.74
16 May 2008	2.65	5.61
23 May 2008	2.69	5.72
30 May 2008	2.65	5.56
6 June 2008	2.61	5.62
13 June 2008	2.60	5.41
20 June 2008	2.65	5.63
27 June 2008	2.80	6.09
4 July 2008	2.84	6.21
11 July 2008	2.91	6.37
18 July 2008	2.95	6.13
25 July 2008	2.95	6.12
1 August 2008	3.00	6.40
8 August 2008	3.04	6.46
15 August 2008	3.08	6.47
22 August 2008	3.13	6.55
29 August 2008	3.15	6.55
5 September 2008	3.19	6.77
12 September 2008	3.29	6.73
19 September 2008	3.58	7.15
26 September 2008	3.69	7.06
3 October 2008	4.10	8.58
10 October 2008	4.81	10.43
17 October 2008	5.12	10.38
24 October 2008	5.25	11.62
31 October 2008	5.41	11.11
7 November 2008	5.36	11.28
14 November 2008	5.45	12.12
21 November 2008	6.03	13.91
28 November 2008	6.20	14.29
5 December 2008	6.36	14.75

12 December 2008	6.51	16.52
19 December 2008	6.58	14.82
26 December 2008	6.52	13.48
2 January 2009	6.53	13.65
9 January 2009	6.04	11.56
16 January 2009	5.99	11.66
23 January 2009	5.91	12.35
30 January 2009	5.59	10.89
6 February 2009	5.38	10.72
13 February 2009	5.32	10.82
20 February 2009	5.43	10.73
27 February 2009	5.59	12.42
6 March 2009	5.60	12.86
13 March 2009	5.77	11.75
20 March 2009	5.89	13.26
27 March 2009	5.89	12.90
3 April 2009	5.80	11.13
10 April 2009	5.63	10.26
17 April 2009	5.37	10.99
24 April 2009	5.21	10.03
1 May 2009	4.78	8.61
8 May 2009	4.44	9.32
15 May 2009	4.49	10.32
22 May 2009	4.32	9.54
29 May 2009	4.04	9.23
5 June 2009	3.81	8.10
12 June 2009	3.59	7.99
19 June 2009	3.54	7.95
26 June 2009	3.58	8.30
3 July 2009	3.55	8.04
10 July 2009	3.56	8.34
17 July 2009	3.34	7.91
24 July 2009	3.15	7.42
31 July 2009	2.87	7.05
7 August 2009	2.70	6.47
14 August 2009	2.65	6.92
21 August 2009	2.82	7.04
28 August 2009	2.79	6.99
4 September 2009	2.79	6.89
11 September 2009	2.78	6.79
18 September 2009	2.63	6.21
25 September 2009	2.63	6.13
2 October 2009	2.67	6.37
9 October 2009	2.59	6.06

16 October 2009	2.58	5.94
23 October 2009	2.51	5.78
30 October 2009	2.53	5.91
6 November 2009	2.50	5.77
13 November 2009	2.47	5.77
20 November 2009	2.47	5.85
27 November 2009	2.53	6.01
4 December 2009	2.48	5.77
11 December 2009	2.33	5.54
18 December 2009	2.22	5.49
25 December 2009	2.13	5.14
1 January 2010	1.98	4.92
8 January 2010	1.85	4.66
15 January 2010	1.84	4.74
22 January 2010	1.91	4.90
25 January 2010	1.92	4.92

*Middle-left panel*

*Reserve Bank Survey of Capital Spending Plans*

- Almost 40 percent reported plans to increase equipment spending.
- Just under 20 percent reported plans to decrease spending.
- Most commonly cited factors by firms planning an increase:
  - Expectation of strong sales growth
  - Need to replace IT equipment

*Middle-right panel*

*Indicator of High-tech Spending*

Diffusion index

Period	NABE survey of 12-month IT capital spending plans
2003:Q2	65.0
2003:Q3	63.0
2003:Q4	68.5
2004:Q1	75.5
2004:Q2	72.0
2004:Q3	78.5
2004:Q4	75.5
2005:Q1	77.0
2005:Q2	74.5
2005:Q3	79.0
2005:Q4	73.0
2006:Q1	69.0
2006:Q2	79.0

2006:Q3	74.0
2006:Q4	74.0
2007:Q1	70.5
2007:Q2	66.5
2007:Q3	69.5
2007:Q4	62.0
2008:Q1	69.5
2008:Q2	64.5
2008:Q3	64.0
2008:Q4	56.0
2009:Q1	43.0
2009:Q2	52.5
2009:Q3	51.0
2009:Q4	66.5
2010:Q1	62.0

Note: Based on survey question on firms' plans to increase or decrease their spending on high-tech equipment in the next 12 months. [Data values for 2003:Q2 through 2005:Q4 are approximate.]

*Bottom-left panel*  
*Equipment and Software Investment*

Period	Percent change, annual rate
2000:Q1	18.43
2000:Q2	14.98
2000:Q3	0.95
2000:Q4	1.51
2001:Q1	-1.29
2001:Q2	-13.95
2001:Q3	-9.60
2001:Q4	-2.74
2002:Q1	-4.82
2002:Q2	-1.16
2002:Q3	3.30
2002:Q4	-7.82
2003:Q1	-1.04
2003:Q2	10.79
2003:Q3	13.08
2003:Q4	7.76
2004:Q1	-3.40
2004:Q2	13.48
2004:Q3	13.99
2004:Q4	12.23
2005:Q1	2.45
2005:Q2	8.71

2005:Q3	11.16
2005:Q4	2.27
2006:Q1	17.79
2006:Q2	2.11
2006:Q3	2.19
2006:Q4	2.75
2007:Q1	-0.47
2007:Q2	6.51
2007:Q3	2.23
2007:Q4	4.46
2008:Q1	-0.52
2008:Q2	-5.01
2008:Q3	-9.38
2008:Q4	-25.90
2009:Q1	-36.37
2009:Q2	-4.88
2009:Q3	1.53
<i>Forecast</i>	
2009:Q4	12.37
2010:Q1	8.35
2010:Q2	13.15
2010:Q3	15.73
2010:Q4	14.36
2011:Q1	15.32
2011:Q2	14.36
2011:Q3	14.28
2011:Q4	13.74

*Bottom-right panel*  
*Real Stock of Equipment and Software*

Period	Average annual percent change
1975-1994	3.6
1995-2000	6.4
2001-2007	3.3
2008-2009	0.4
<i>Forecast</i>	
2010-2011	1.2

**Exhibit 6**  
**A Closer Look at Current Labor Market Conditions**

*Top-left panel*

## Private Payrolls

Average monthly change  
(thousands)

2009:	Q1	-695
	Q2	-425
	Q3	-171
	Q4	-76
2010:	Q1	42
	Q2	263

## Top-right panel

### Nonfarm Business Productivity

Chained (2005) dollars per hour

Period	Actual	Structural
2006:Q1	50.82	50.40
2006:Q2	50.89	50.67
2006:Q3	50.65	50.94
2006:Q4	50.94	51.21
2007:Q1	51.09	51.49
2007:Q2	51.44	51.76
2007:Q3	52.14	52.04
2007:Q4	52.39	52.32
2008:Q1	52.38	52.62
2008:Q2	52.89	52.92
2008:Q3	52.98	53.22
2008:Q4	53.19	53.52
2009:Q1	53.34	53.86
2009:Q2	54.23	54.20
2009:Q3	55.16	54.54
2009:Q4	56.00	54.89

## Middle panel

### Initial Unemployment Claims

Period	Thousands
7 January 1978	352.90
14 January 1978	348.88
21 January 1978	350.96
28 January 1978	350.63
4 February 1978	354.31
11 February 1978	361.88
18 February 1978	381.23
25 February 1978	383.17
4 March 1978	381.53

11 March 1978	377.79
18 March 1978	357.06
25 March 1978	348.25
1 April 1978	342.88
8 April 1978	339.66
15 April 1978	330.07
22 April 1978	326.02
29 April 1978	323.72
6 May 1978	320.74
13 May 1978	324.09
20 May 1978	327.53
27 May 1978	326.30
3 June 1978	320.13
10 June 1978	322.56
17 June 1978	320.79
24 June 1978	323.60
1 July 1978	333.27
8 July 1978	339.45
15 July 1978	346.03
22 July 1978	350.87
29 July 1978	350.64
5 August 1978	352.87
12 August 1978	353.24
19 August 1978	351.80
26 August 1978	348.32
2 September 1978	335.25
9 September 1978	330.97
16 September 1978	325.51
23 September 1978	323.08
30 September 1978	324.27
7 October 1978	325.80
14 October 1978	324.63
21 October 1978	328.36
28 October 1978	327.80
4 November 1978	321.23
11 November 1978	318.03
18 November 1978	319.10
25 November 1978	329.92
2 December 1978	344.91
9 December 1978	354.82
16 December 1978	355.93
23 December 1978	354.23
30 December 1978	349.73
6 January 1979	353.61

13 January 1979	364.84
20 January 1979	361.12
27 January 1979	357.21
3 February 1979	354.61
10 February 1979	346.34
17 February 1979	353.89
24 February 1979	358.26
3 March 1979	359.77
10 March 1979	360.90
17 March 1979	358.80
24 March 1979	357.08
31 March 1979	358.61
7 April 1979	384.02
14 April 1979	408.77
21 April 1979	416.19
28 April 1979	415.16
5 May 1979	387.09
12 May 1979	358.55
19 May 1979	349.35
26 May 1979	347.42
2 June 1979	343.27
9 June 1979	348.53
16 June 1979	349.65
23 June 1979	356.91
30 June 1979	365.00
7 July 1979	365.91
14 July 1979	370.21
21 July 1979	374.49
28 July 1979	379.05
4 August 1979	389.87
11 August 1979	394.49
18 August 1979	392.31
25 August 1979	393.11
1 September 1979	387.34
8 September 1979	385.37
15 September 1979	384.82
22 September 1979	384.42
29 September 1979	384.77
6 October 1979	393.04
13 October 1979	395.12
20 October 1979	399.62
27 October 1979	401.75
3 November 1979	397.61

10 November 1979	402.80
17 November 1979	408.83
24 November 1979	412.55
1 December 1979	417.86
8 December 1979	418.21
15 December 1979	413.52
22 December 1979	427.81
29 December 1979	430.84
5 January 1980	425.58
12 January 1980	424.03
19 January 1980	417.94
26 January 1980	413.90
2 February 1980	416.62
9 February 1980	421.47
16 February 1980	413.73
23 February 1980	417.77
1 March 1980	418.96
8 March 1980	417.29
15 March 1980	421.65
22 March 1980	423.34
29 March 1980	439.55
5 April 1980	451.03
12 April 1980	478.92
19 April 1980	507.16
26 April 1980	529.47
3 May 1980	556.32
10 May 1980	570.51
17 May 1980	594.03
24 May 1980	609.70
31 May 1980	626.39
7 June 1980	628.50
14 June 1980	615.77
21 June 1980	609.11
28 June 1980	606.25
5 July 1980	598.72
12 July 1980	584.22
19 July 1980	576.27
26 July 1980	559.16
2 August 1980	556.57
9 August 1980	556.75
16 August 1980	545.80
23 August 1980	534.14
30 August 1980	517.36
6 September 1980	511.55

13 September 1980	503.60
20 September 1980	491.81
27 September 1980	481.95
4 October 1980	469.69
11 October 1980	458.39
18 October 1980	448.28
25 October 1980	437.06
1 November 1980	426.48
8 November 1980	416.42
15 November 1980	417.24
22 November 1980	412.38
29 November 1980	410.64
6 December 1980	413.13
13 December 1980	409.45
20 December 1980	413.01
27 December 1980	409.59
3 January 1981	408.01
10 January 1981	409.79
17 January 1981	411.93
24 January 1981	411.34
31 January 1981	413.75
7 February 1981	413.88
14 February 1981	414.34
21 February 1981	424.83
28 February 1981	428.28
7 March 1981	425.50
14 March 1981	421.93
21 March 1981	412.51
28 March 1981	407.20
4 April 1981	408.99
11 April 1981	405.89
18 April 1981	403.82
25 April 1981	409.60
2 May 1981	408.77
9 May 1981	415.57
16 May 1981	421.00
23 May 1981	415.97
30 May 1981	416.78
6 June 1981	417.89
13 June 1981	420.31
20 June 1981	425.34
27 June 1981	432.36
4 July 1981	440.30

11 July 1981	441.00
18 July 1981	439.67
25 July 1981	430.28
1 August 1981	434.52
8 August 1981	439.79
15 August 1981	442.81
22 August 1981	449.84
29 August 1981	443.55
5 September 1981	449.90
12 September 1981	452.77
19 September 1981	462.67
26 September 1981	472.65
3 October 1981	476.86
10 October 1981	486.06
17 October 1981	489.28
24 October 1981	487.20
31 October 1981	493.34
7 November 1981	499.15
14 November 1981	506.71
21 November 1981	501.93
28 November 1981	511.33
5 December 1981	522.36
12 December 1981	530.64
19 December 1981	549.47
26 December 1981	550.42
2 January 1982	534.83
9 January 1982	533.50
16 January 1982	521.11
23 January 1982	523.30
30 January 1982	545.18
6 February 1982	548.04
13 February 1982	552.56
20 February 1982	547.41
27 February 1982	533.68
6 March 1982	533.66
13 March 1982	541.77
20 March 1982	545.05
27 March 1982	556.54
3 April 1982	561.93
10 April 1982	573.40
17 April 1982	583.47
24 April 1982	587.02
1 May 1982	586.68
8 May 1982	586.27

15 May 1982	583.38
22 May 1982	582.86
29 May 1982	585.77
5 June 1982	592.68
12 June 1982	599.83
19 June 1982	601.23
26 June 1982	599.76
3 July 1982	596.90
10 July 1982	586.23
17 July 1982	579.99
24 July 1982	568.41
31 July 1982	569.70
7 August 1982	578.39
14 August 1982	596.02
21 August 1982	618.99
28 August 1982	629.58
4 September 1982	640.95
11 September 1982	641.85
18 September 1982	654.86
25 September 1982	660.85
2 October 1982	671.66
9 October 1982	674.26
16 October 1982	668.43
23 October 1982	656.39
30 October 1982	641.84
6 November 1982	626.43
13 November 1982	612.16
20 November 1982	600.67
27 November 1982	594.36
4 December 1982	586.20
11 December 1982	569.62
18 December 1982	554.23
25 December 1982	523.68
1 January 1983	517.91
8 January 1983	512.11
15 January 1983	503.06
22 January 1983	500.53
29 January 1983	492.76
5 February 1983	490.63
12 February 1983	492.24
19 February 1983	494.18
26 February 1983	488.73
5 March 1983	487.23

12 March 1983	484.64
19 March 1983	480.51
26 March 1983	480.46
2 April 1983	479.29
9 April 1983	484.40
16 April 1983	495.50
23 April 1983	497.29
30 April 1983	496.98
7 May 1983	496.60
14 May 1983	483.95
21 May 1983	477.07
28 May 1983	468.15
4 June 1983	459.46
11 June 1983	453.88
18 June 1983	447.24
25 June 1983	444.38
2 July 1983	435.07
9 July 1983	427.61
16 July 1983	418.07
23 July 1983	406.17
30 July 1983	404.33
6 August 1983	405.17
13 August 1983	420.44
20 August 1983	433.00
27 August 1983	435.86
3 September 1983	434.65
10 September 1983	421.12
17 September 1983	411.14
24 September 1983	408.49
1 October 1983	409.14
8 October 1983	410.07
15 October 1983	407.29
22 October 1983	401.83
29 October 1983	399.46
5 November 1983	396.53
12 November 1983	395.60
19 November 1983	393.88
26 November 1983	392.56
3 December 1983	385.14
10 December 1983	379.70
17 December 1983	373.47
24 December 1983	368.05
31 December 1983	369.83
7 January 1984	366.66

14 January 1984	363.86
21 January 1984	353.05
28 January 1984	350.89
4 February 1984	347.59
11 February 1984	344.27
18 February 1984	344.56
25 February 1984	339.49
3 March 1984	340.51
10 March 1984	342.54
17 March 1984	346.14
24 March 1984	346.84
31 March 1984	345.47
7 April 1984	354.33
14 April 1984	356.30
21 April 1984	360.70
28 April 1984	369.35
5 May 1984	365.39
12 May 1984	368.19
19 May 1984	365.90
26 May 1984	360.32
2 June 1984	357.74
9 June 1984	358.04
16 June 1984	359.62
23 June 1984	361.65
30 June 1984	362.90
7 July 1984	361.99
14 July 1984	361.79
21 July 1984	360.69
28 July 1984	360.33
4 August 1984	364.35
11 August 1984	369.30
18 August 1984	380.30
25 August 1984	389.40
1 September 1984	390.15
8 September 1984	395.80
15 September 1984	393.62
22 September 1984	393.63
29 September 1984	397.96
6 October 1984	398.26
13 October 1984	402.80
20 October 1984	413.64
27 October 1984	419.31
3 November 1984	424.31
10 November 1984	419.83

17 November 1984	405.92
24 November 1984	407.02
1 December 1984	401.27
8 December 1984	398.88
15 December 1984	399.75
22 December 1984	387.21
29 December 1984	381.74
5 January 1985	378.12
12 January 1985	378.22
19 January 1985	373.24
26 January 1985	370.48
2 February 1985	374.87
9 February 1985	378.59
16 February 1985	386.33
23 February 1985	391.79
2 March 1985	388.69
9 March 1985	384.67
16 March 1985	383.69
23 March 1985	379.61
30 March 1985	382.58
6 April 1985	387.47
13 April 1985	393.74
20 April 1985	398.27
27 April 1985	398.23
4 May 1985	394.56
11 May 1985	390.26
18 May 1985	390.29
25 May 1985	392.83
1 June 1985	393.49
8 June 1985	395.72
15 June 1985	395.44
22 June 1985	393.05
29 June 1985	392.42
6 July 1985	390.37
13 July 1985	389.40
20 July 1985	385.26
27 July 1985	378.06
3 August 1985	381.27
10 August 1985	385.05
17 August 1985	392.32
24 August 1985	403.20
31 August 1985	403.56
7 September 1985	409.55

14 September 1985	411.86
21 September 1985	410.70
28 September 1985	408.24
5 October 1985	402.99
12 October 1985	401.11
19 October 1985	400.92
26 October 1985	405.78
2 November 1985	404.25
9 November 1985	403.37
16 November 1985	402.78
23 November 1985	393.65
30 November 1985	392.29
7 December 1985	392.77
14 December 1985	388.90
21 December 1985	385.82
28 December 1985	385.12
4 January 1986	375.99
11 January 1986	379.76
18 January 1986	378.41
25 January 1986	366.74
1 February 1986	367.13
8 February 1986	359.31
15 February 1986	357.71
22 February 1986	369.33
1 March 1986	371.97
8 March 1986	372.10
15 March 1986	378.13
22 March 1986	377.40
29 March 1986	382.86
5 April 1986	386.55
12 April 1986	388.20
19 April 1986	387.22
26 April 1986	385.90
3 May 1986	388.66
10 May 1986	390.35
17 May 1986	390.40
24 May 1986	389.20
31 May 1986	384.59
7 June 1986	379.50
14 June 1986	375.79
21 June 1986	371.10
28 June 1986	370.55
5 July 1986	369.44

12 July 1986	367.60
19 July 1986	364.14
26 July 1986	361.71
2 August 1986	373.07
9 August 1986	386.88
16 August 1986	400.10
23 August 1986	408.86
30 August 1986	405.13
6 September 1986	401.05
13 September 1986	397.84
20 September 1986	398.35
27 September 1986	395.54
4 October 1986	393.16
11 October 1986	391.54
18 October 1986	388.22
25 October 1986	383.34
1 November 1986	376.57
8 November 1986	367.10
15 November 1986	362.73
22 November 1986	362.42
29 November 1986	363.11
6 December 1986	366.46
13 December 1986	368.25
20 December 1986	363.66
27 December 1986	358.44
3 January 1987	348.55
10 January 1987	341.82
17 January 1987	339.47
24 January 1987	339.59
31 January 1987	351.37
7 February 1987	356.31
14 February 1987	355.52
21 February 1987	354.33
28 February 1987	348.70
7 March 1987	340.86
14 March 1987	340.18
21 March 1987	338.62
28 March 1987	333.32
4 April 1987	331.59
11 April 1987	332.35
18 April 1987	335.73
25 April 1987	336.16
2 May 1987	336.19
9 May 1987	330.43

16 May 1987	328.51
23 May 1987	332.23
30 May 1987	331.13
6 June 1987	334.20
13 June 1987	327.96
20 June 1987	322.03
27 June 1987	322.05
4 July 1987	321.61
11 July 1987	321.94
18 July 1987	319.61
25 July 1987	319.19
1 August 1987	324.77
8 August 1987	327.28
15 August 1987	329.58
22 August 1987	326.65
29 August 1987	320.16
5 September 1987	317.35
12 September 1987	311.73
19 September 1987	310.89
26 September 1987	309.52
3 October 1987	305.79
10 October 1987	308.62
17 October 1987	306.80
24 October 1987	302.98
31 October 1987	299.92
7 November 1987	297.12
14 November 1987	298.62
21 November 1987	302.46
28 November 1987	306.86
5 December 1987	312.43
12 December 1987	314.81
19 December 1987	316.34
26 December 1987	318.63
2 January 1988	317.70
9 January 1988	319.57
16 January 1988	329.07
23 January 1988	333.92
30 January 1988	340.53
6 February 1988	339.01
13 February 1988	326.68
20 February 1988	324.59
27 February 1988	318.91
5 March 1988	316.09
12 March 1988	314.23

19 March 1988	309.38
26 March 1988	305.51
2 April 1988	306.00
9 April 1988	308.27
16 April 1988	310.06
23 April 1988	312.27
30 April 1988	313.24
7 May 1988	312.30
14 May 1988	312.29
21 May 1988	314.03
28 May 1988	314.05
4 June 1988	314.21
11 June 1988	311.79
18 June 1988	309.62
25 June 1988	308.12
2 July 1988	306.96
9 July 1988	306.64
16 July 1988	307.81
23 July 1988	319.47
30 July 1988	325.88
6 August 1988	329.09
13 August 1988	328.31
20 August 1988	318.94
27 August 1988	314.90
3 September 1988	312.38
10 September 1988	310.56
17 September 1988	307.99
24 September 1988	304.41
1 October 1988	300.94
8 October 1988	297.74
15 October 1988	294.43
22 October 1988	290.85
29 October 1988	291.39
5 November 1988	289.62
12 November 1988	287.33
19 November 1988	289.22
26 November 1988	290.35
3 December 1988	293.48
10 December 1988	293.84
17 December 1988	293.57
24 December 1988	290.38
31 December 1988	291.87
7 January 1989	295.36

14 January 1989	293.02
21 January 1989	292.08
28 January 1989	289.92
4 February 1989	287.16
11 February 1989	296.78
18 February 1989	302.56
25 February 1989	303.84
4 March 1989	313.07
11 March 1989	313.87
18 March 1989	317.13
25 March 1989	321.80
1 April 1989	321.31
8 April 1989	318.45
15 April 1989	315.45
22 April 1989	311.71
29 April 1989	308.65
6 May 1989	310.23
13 May 1989	316.49
20 May 1989	320.75
27 May 1989	324.31
3 June 1989	325.64
10 June 1989	325.67
17 June 1989	329.65
24 June 1989	332.79
1 July 1989	338.71
8 July 1989	341.06
15 July 1989	344.01
22 July 1989	342.74
29 July 1989	339.66
5 August 1989	338.79
12 August 1989	336.87
19 August 1989	335.45
26 August 1989	334.36
2 September 1989	332.31
9 September 1989	331.00
16 September 1989	332.82
23 September 1989	333.27
30 September 1989	337.75
7 October 1989	355.67
14 October 1989	358.30
21 October 1989	361.64
28 October 1989	363.43
4 November 1989	344.95

11 November 1989	342.86
18 November 1989	339.95
25 November 1989	336.79
2 December 1989	339.42
9 December 1989	339.87
16 December 1989	344.69
23 December 1989	354.52
30 December 1989	357.92
6 January 1990	362.10
13 January 1990	365.67
20 January 1990	364.04
27 January 1990	360.80
3 February 1990	364.09
10 February 1990	363.42
17 February 1990	356.84
24 February 1990	358.28
3 March 1990	354.01
10 March 1990	349.66
17 March 1990	349.91
24 March 1990	345.04
31 March 1990	343.93
7 April 1990	348.34
14 April 1990	350.19
21 April 1990	357.53
28 April 1990	361.60
5 May 1990	358.49
12 May 1990	358.08
19 May 1990	356.19
26 May 1990	355.41
2 June 1990	358.83
9 June 1990	359.74
16 June 1990	361.38
23 June 1990	361.98
30 June 1990	360.91
7 July 1990	361.83
14 July 1990	363.73
21 July 1990	365.83
28 July 1990	367.02
4 August 1990	368.60
11 August 1990	372.04
18 August 1990	377.78
25 August 1990	384.01
1 September 1990	389.76
8 September 1990	392.15

15 September 1990	392.64
22 September 1990	391.50
29 September 1990	394.65
6 October 1990	398.11
13 October 1990	404.83
20 October 1990	416.41
27 October 1990	425.43
3 November 1990	431.93
10 November 1990	438.35
17 November 1990	441.24
24 November 1990	446.75
1 December 1990	452.08
8 December 1990	452.49
15 December 1990	452.61
22 December 1990	455.57
29 December 1990	456.22
5 January 1991	447.73
12 January 1991	445.26
19 January 1991	437.93
26 January 1991	439.95
2 February 1991	456.83
9 February 1991	467.50
16 February 1991	474.76
23 February 1991	484.10
2 March 1991	485.48
9 March 1991	490.17
16 March 1991	496.08
23 March 1991	498.62
30 March 1991	501.34
6 April 1991	489.64
13 April 1991	484.35
20 April 1991	476.46
27 April 1991	467.09
4 May 1991	466.73
11 May 1991	459.07
18 May 1991	451.61
25 May 1991	446.80
1 June 1991	442.15
8 June 1991	440.90
15 June 1991	436.18
22 June 1991	431.24
29 June 1991	427.72
6 July 1991	423.02

13 July 1991	420.83
20 July 1991	417.25
27 July 1991	418.57
3 August 1991	422.62
10 August 1991	426.74
17 August 1991	432.83
24 August 1991	433.35
31 August 1991	430.15
7 September 1991	427.04
14 September 1991	423.23
21 September 1991	421.62
28 September 1991	424.61
5 October 1991	424.42
12 October 1991	426.25
19 October 1991	426.18
26 October 1991	422.68
2 November 1991	428.41
9 November 1991	435.55
16 November 1991	440.69
23 November 1991	445.73
30 November 1991	445.05
7 December 1991	450.47
14 December 1991	459.34
21 December 1991	457.33
28 December 1991	456.62
4 January 1992	445.85
11 January 1992	437.09
18 January 1992	439.02
25 January 1992	438.90
1 February 1992	440.96
8 February 1992	442.39
15 February 1992	443.01
22 February 1992	441.84
29 February 1992	442.73
7 March 1992	436.60
14 March 1992	434.40
21 March 1992	435.45
28 March 1992	429.49
4 April 1992	427.23
11 April 1992	421.23
18 April 1992	417.18
25 April 1992	418.12
2 May 1992	422.90
9 May 1992	423.81

16 May 1992	421.44
23 May 1992	418.94
30 May 1992	413.97
6 June 1992	413.87
13 June 1992	415.37
20 June 1992	416.80
27 June 1992	418.99
4 July 1992	416.77
11 July 1992	413.79
18 July 1992	406.94
25 July 1992	442.86
1 August 1992	446.83
8 August 1992	446.19
15 August 1992	448.39
22 August 1992	406.87
29 August 1992	402.98
5 September 1992	405.50
12 September 1992	409.16
19 September 1992	416.56
26 September 1992	416.94
3 October 1992	412.50
10 October 1992	402.14
17 October 1992	391.71
24 October 1992	381.11
31 October 1992	372.74
7 November 1992	372.60
14 November 1992	370.52
21 November 1992	368.00
28 November 1992	362.00
5 December 1992	356.11
12 December 1992	351.52
19 December 1992	345.74
26 December 1992	338.71
2 January 1993	336.37
9 January 1993	335.13
16 January 1993	339.72
23 January 1993	346.90
30 January 1993	346.86
6 February 1993	338.25
13 February 1993	330.61
20 February 1993	333.14
27 February 1993	338.43
6 March 1993	347.01

13 March 1993	353.22
20 March 1993	349.89
27 March 1993	350.99
3 April 1993	353.77
10 April 1993	355.46
17 April 1993	358.79
24 April 1993	354.72
1 May 1993	349.21
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22 May 1993	342.25
29 May 1993	343.77
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12 June 1993	344.21
19 June 1993	344.96
26 June 1993	342.67
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17 July 1993	330.73
24 July 1993	349.57
31 July 1993	355.10
7 August 1993	363.13
14 August 1993	364.22
21 August 1993	345.89
28 August 1993	341.05
4 September 1993	338.03
11 September 1993	336.37
18 September 1993	337.34
25 September 1993	338.92
2 October 1993	338.54
9 October 1993	344.21
16 October 1993	347.49
23 October 1993	350.16
30 October 1993	354.03
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13 November 1993	348.20
20 November 1993	343.68
27 November 1993	340.87
4 December 1993	337.84
11 December 1993	336.00
18 December 1993	334.90
25 December 1993	323.10
1 January 1994	323.98
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15 January 1994	332.29
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29 January 1994	363.67
5 February 1994	367.97
12 February 1994	367.75
19 February 1994	368.17
26 February 1994	348.47
5 March 1994	345.40
12 March 1994	342.10
19 March 1994	336.89
26 March 1994	335.59
2 April 1994	334.11
9 April 1994	336.08
16 April 1994	341.71
23 April 1994	344.16
30 April 1994	344.46
7 May 1994	349.91
14 May 1994	351.41
21 May 1994	357.75
28 May 1994	358.91
4 June 1994	352.49
11 June 1994	346.90
18 June 1994	341.66
25 June 1994	339.95
2 July 1994	337.21
9 July 1994	338.15
16 July 1994	344.02
23 July 1994	344.89
30 July 1994	344.45
6 August 1994	343.62
13 August 1994	337.62
20 August 1994	334.05
27 August 1994	336.20
3 September 1994	336.31
10 September 1994	335.31
17 September 1994	334.12
24 September 1994	330.06
1 October 1994	327.96
8 October 1994	330.37
15 October 1994	332.69
22 October 1994	333.95
29 October 1994	334.14
5 November 1994	330.92

12 November 1994	329.39
19 November 1994	328.41
26 November 1994	328.00
3 December 1994	326.87
10 December 1994	326.98
17 December 1994	327.99
24 December 1994	324.24
31 December 1994	323.07
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14 January 1995	329.46
21 January 1995	332.07
28 January 1995	333.27
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11 March 1995	340.94
18 March 1995	341.12
25 March 1995	340.10
1 April 1995	339.26
8 April 1995	339.18
15 April 1995	342.20
22 April 1995	346.49
29 April 1995	353.84
6 May 1995	358.20
13 May 1995	360.92
20 May 1995	367.85
27 May 1995	370.16
3 June 1995	369.73
10 June 1995	369.94
17 June 1995	370.37
24 June 1995	366.42
1 July 1995	364.61
8 July 1995	365.87
15 July 1995	368.59
22 July 1995	376.62
29 July 1995	375.71
5 August 1995	370.36
12 August 1995	361.28
19 August 1995	354.12
26 August 1995	356.04
2 September 1995	357.13
9 September 1995	361.72

16 September 1995	365.37
23 September 1995	363.82
30 September 1995	363.69
7 October 1995	364.42
14 October 1995	362.58
21 October 1995	365.76
28 October 1995	371.36
4 November 1995	372.90
11 November 1995	373.19
18 November 1995	376.59
25 November 1995	377.14
2 December 1995	375.34
9 December 1995	369.36
16 December 1995	367.82
23 December 1995	366.55
30 December 1995	362.96
6 January 1996	366.60
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20 January 1996	366.88
27 January 1996	373.94
3 February 1996	377.18
10 February 1996	390.65
17 February 1996	382.59
24 February 1996	377.19
2 March 1996	375.90
9 March 1996	369.51
16 March 1996	369.83
23 March 1996	385.04
30 March 1996	391.22
6 April 1996	393.03
13 April 1996	386.16
20 April 1996	371.74
27 April 1996	359.22
4 May 1996	351.72
11 May 1996	350.53
18 May 1996	344.61
25 May 1996	344.55
1 June 1996	345.01
8 June 1996	344.69
15 June 1996	344.09
22 June 1996	343.70
29 June 1996	342.83
6 July 1996	340.53

13 July 1996	341.57
20 July 1996	339.15
27 July 1996	336.73
3 August 1996	332.89
10 August 1996	329.04
17 August 1996	330.25
24 August 1996	332.77
31 August 1996	333.36
7 September 1996	333.75
14 September 1996	334.17
21 September 1996	337.77
28 September 1996	342.69
5 October 1996	343.23
12 October 1996	342.29
19 October 1996	338.20
26 October 1996	339.04
2 November 1996	338.70
9 November 1996	336.92
16 November 1996	338.51
23 November 1996	337.35
30 November 1996	336.85
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14 December 1996	346.58
21 December 1996	347.26
28 December 1996	353.54
4 January 1997	351.52
11 January 1997	344.41
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22 March 1997	317.91
29 March 1997	318.86
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12 April 1997	323.73
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14 June 1997	325.44
21 June 1997	325.30
28 June 1997	325.55
5 July 1997	329.70
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19 July 1997	324.49
26 July 1997	320.28
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9 August 1997	314.01
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23 August 1997	329.80
30 August 1997	332.79
6 September 1997	328.81
13 September 1997	321.60
20 September 1997	319.07
27 September 1997	315.39
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18 October 1997	312.98
25 October 1997	310.27
1 November 1997	310.68
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15 November 1997	313.23
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6 December 1997	317.21
13 December 1997	316.55
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3 January 1998	311.88
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17 January 1998	321.46
24 January 1998	322.55
31 January 1998	323.40
7 February 1998	318.57
14 February 1998	313.68
21 February 1998	318.81
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7 March 1998	318.35

14 March 1998	317.78
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28 March 1998	314.94
4 April 1998	315.92
11 April 1998	312.18
18 April 1998	311.24
25 April 1998	311.10
2 May 1998	309.12
9 May 1998	309.75
16 May 1998	309.10
23 May 1998	308.60
30 May 1998	313.02
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5 September 1998	308.09
12 September 1998	307.19
19 September 1998	307.94
26 September 1998	303.97
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28 November 1998	315.86
5 December 1998	318.28
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19 December 1998	309.47
26 December 1998	315.87
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9 January 1999	327.00

16 January 1999	337.43
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30 January 1999	324.90
6 February 1999	311.35
13 February 1999	304.59
20 February 1999	302.25
27 February 1999	301.17
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13 March 1999	302.70
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8 May 1999	302.43
15 May 1999	299.11
22 May 1999	301.07
29 May 1999	302.98
5 June 1999	301.42
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19 June 1999	297.22
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24 July 1999	297.49
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7 August 1999	302.51
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21 August 1999	293.16
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18 September 1999	285.51
25 September 1999	289.57
2 October 1999	294.34
9 October 1999	296.70
16 October 1999	298.09
23 October 1999	291.69
30 October 1999	285.84
6 November 1999	283.74

13 November 1999	282.19
20 November 1999	281.21
27 November 1999	281.80
4 December 1999	282.97
11 December 1999	280.88
18 December 1999	283.51
25 December 1999	278.57
1 January 2000	278.34
8 January 2000	284.81
15 January 2000	285.44
22 January 2000	289.54
29 January 2000	289.33
5 February 2000	292.79
12 February 2000	295.48
19 February 2000	295.18
26 February 2000	293.90
4 March 2000	287.32
11 March 2000	279.76
18 March 2000	276.59
25 March 2000	274.58
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22 April 2000	266.65
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22 July 2000	294.48
29 July 2000	298.71
5 August 2000	301.91
12 August 2000	304.89
19 August 2000	309.24
26 August 2000	312.60
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9 September 2000	309.94

16 September 2000	308.29
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7 October 2000	300.05
14 October 2000	297.15
21 October 2000	298.93
28 October 2000	301.09
4 November 2000	306.75
11 November 2000	311.38
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25 November 2000	334.38
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23 December 2000	344.11
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6 January 2001	351.98
13 January 2001	343.09
20 January 2001	337.94
27 January 2001	340.21
3 February 2001	349.78
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17 February 2001	365.31
24 February 2001	371.18
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31 March 2001	387.86
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14 April 2001	386.92
21 April 2001	392.51
28 April 2001	396.85
5 May 2001	392.66
12 May 2001	394.27
19 May 2001	394.82
26 May 2001	394.73
2 June 2001	401.03
9 June 2001	406.21
16 June 2001	404.21
23 June 2001	398.03
30 June 2001	395.01
7 July 2001	392.68
14 July 2001	395.43

21 July 2001	399.78
28 July 2001	398.07
4 August 2001	397.90
11 August 2001	395.09
18 August 2001	396.03
25 August 2001	397.80
1 September 2001	398.23
8 September 2001	401.67
15 September 2001	399.85
22 September 2001	414.38
29 September 2001	442.96
6 October 2001	460.01
13 October 2001	481.95
20 October 2001	489.14
27 October 2001	480.81
3 November 2001	471.69
10 November 2001	458.13
17 November 2001	445.62
24 November 2001	447.66
1 December 2001	453.93
8 December 2001	445.27
15 December 2001	434.69
22 December 2001	415.82
29 December 2001	404.90
5 January 2002	405.87
12 January 2002	413.03
19 January 2002	410.24
26 January 2002	408.57
2 February 2002	410.31
9 February 2002	405.19
16 February 2002	403.28
23 February 2002	399.25
2 March 2002	396.06
9 March 2002	396.47
16 March 2002	395.06
23 March 2002	399.25
30 March 2002	421.04
6 April 2002	432.51
13 April 2002	445.02
20 April 2002	445.27
27 April 2002	429.02
4 May 2002	420.15
11 May 2002	413.05

18 May 2002	411.93
25 May 2002	409.33
1 June 2002	401.37
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15 June 2002	391.00
22 June 2002	387.19
29 June 2002	389.23
6 July 2002	390.18
13 July 2002	387.31
20 July 2002	385.06
27 July 2002	386.23
3 August 2002	385.29
10 August 2002	386.52
17 August 2002	391.59
24 August 2002	393.51
31 August 2002	395.24
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14 September 2002	405.08
21 September 2002	405.72
28 September 2002	409.36
5 October 2002	406.45
12 October 2002	404.59
19 October 2002	407.36
26 October 2002	407.38
2 November 2002	407.54
9 November 2002	406.33
16 November 2002	400.71
23 November 2002	395.87
30 November 2002	389.08
7 December 2002	395.36
14 December 2002	405.36
21 December 2002	406.42
28 December 2002	414.38
4 January 2003	406.41
11 January 2003	393.60
18 January 2003	395.57
25 January 2003	394.95
1 February 2003	399.99
8 February 2003	403.01
15 February 2003	407.46
22 February 2003	411.06
1 March 2003	416.70
8 March 2003	425.18
15 March 2003	427.73

22 March 2003	425.11
29 March 2003	425.08
5 April 2003	423.38
12 April 2003	424.31
19 April 2003	434.00
26 April 2003	436.05
3 May 2003	438.74
10 May 2003	434.54
17 May 2003	428.46
24 May 2003	422.10
31 May 2003	422.94
7 June 2003	425.97
14 June 2003	424.99
21 June 2003	422.35
28 June 2003	421.78
5 July 2003	422.75
12 July 2003	420.53
19 July 2003	419.23
26 July 2003	411.42
2 August 2003	403.52
9 August 2003	401.40
16 August 2003	400.09
23 August 2003	398.38
30 August 2003	399.80
6 September 2003	404.20
13 September 2003	403.37
20 September 2003	400.39
27 September 2003	395.43
4 October 2003	386.58
11 October 2003	382.02
18 October 2003	384.05
25 October 2003	381.95
1 November 2003	376.07
8 November 2003	374.91
15 November 2003	370.54
22 November 2003	364.32
29 November 2003	363.03
6 December 2003	362.06
13 December 2003	360.41
20 December 2003	360.49
27 December 2003	358.49
3 January 2004	355.55
10 January 2004	353.32

17 January 2004	355.28
24 January 2004	356.15
31 January 2004	361.18
7 February 2004	367.61
14 February 2004	366.10
21 February 2004	367.72
28 February 2004	360.68
6 March 2004	351.80
13 March 2004	347.45
20 March 2004	344.18
27 March 2004	342.24
3 April 2004	339.97
10 April 2004	344.10
17 April 2004	348.53
24 April 2004	348.41
1 May 2004	345.75
8 May 2004	339.33
15 May 2004	335.68
22 May 2004	336.36
29 May 2004	339.44
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19 June 2004	346.40
26 June 2004	349.30
3 July 2004	342.13
10 July 2004	343.57
17 July 2004	343.64
24 July 2004	343.46
31 July 2004	347.04
7 August 2004	344.65
14 August 2004	338.98
21 August 2004	337.73
28 August 2004	340.43
4 September 2004	338.07
11 September 2004	337.82
18 September 2004	337.52
25 September 2004	337.44
2 October 2004	339.61
9 October 2004	341.46
16 October 2004	337.93
23 October 2004	334.59
30 October 2004	333.82
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13 November 2004	334.17
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27 November 2004	328.90
4 December 2004	332.06
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25 December 2004	325.32
1 January 2005	327.98
8 January 2005	339.01
15 January 2005	342.25
22 January 2005	344.23
29 January 2005	338.43
5 February 2005	325.07
12 February 2005	318.34
19 February 2005	316.26
26 February 2005	312.27
5 March 2005	319.25
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9 April 2005	333.92
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28 May 2005	329.02
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18 June 2005	334.61
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9 July 2005	325.08
16 July 2005	325.05
23 July 2005	326.80
30 July 2005	323.90
6 August 2005	317.52
13 August 2005	316.63
20 August 2005	315.96
27 August 2005	316.62
3 September 2005	320.66
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17 September 2005	373.22
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15 October 2005	368.47
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17 December 2005	315.70
24 December 2005	318.14
31 December 2005	314.27
7 January 2006	312.50
14 January 2006	305.93
21 January 2006	299.08
28 January 2006	293.62
4 February 2006	286.17
11 February 2006	289.19
18 February 2006	288.07
25 February 2006	290.85
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27 May 2006	334.72
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10 June 2006	315.63
17 June 2006	313.09
24 June 2006	308.24
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15 July 2006	321.88
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29 July 2006	319.38
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12 August 2006	313.51
19 August 2006	316.36
26 August 2006	317.37
2 September 2006	316.81
9 September 2006	317.11
16 September 2006	318.47
23 September 2006	319.34
30 September 2006	317.34
7 October 2006	317.73
14 October 2006	313.07
21 October 2006	311.48
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18 November 2006	320.26
25 November 2006	323.85
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9 December 2006	324.59
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30 December 2006	319.53
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13 January 2007	317.82
20 January 2007	322.64
27 January 2007	315.60
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24 February 2007	320.58
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24 March 2007	309.88
31 March 2007	307.00
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14 April 2007	318.46
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14 July 2007	318.75
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1 September 2007	325.52
8 September 2007	326.05
15 September 2007	323.32
22 September 2007	315.69
29 September 2007	315.66
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13 October 2007	319.25
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27 October 2007	330.06
3 November 2007	332.59
10 November 2007	330.91
17 November 2007	329.21
24 November 2007	332.78
1 December 2007	335.98
8 December 2007	334.99
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12 January 2008	336.71
19 January 2008	329.83
26 January 2008	334.34
2 February 2008	336.64
9 February 2008	341.82
16 February 2008	347.66
23 February 2008	343.75
1 March 2008	342.91
8 March 2008	346.23

15 March 2008	352.65
22 March 2008	356.53
29 March 2008	367.84
5 April 2008	370.33
12 April 2008	370.92
19 April 2008	367.36
26 April 2008	364.50
3 May 2008	368.01
10 May 2008	369.39
17 May 2008	374.60
24 May 2008	374.60
31 May 2008	374.26
7 June 2008	377.46
14 June 2008	381.43
21 June 2008	385.02
28 June 2008	393.71
5 July 2008	388.64
12 July 2008	387.84
19 July 2008	392.93
26 July 2008	402.17
2 August 2008	422.88
9 August 2008	436.33
16 August 2008	442.74
23 August 2008	440.50
30 August 2008	440.44
6 September 2008	442.15
13 September 2008	447.30
20 September 2008	460.41
27 September 2008	470.39
4 October 2008	478.07
11 October 2008	480.50
18 October 2008	478.85
25 October 2008	477.66
1 November 2008	480.13
8 November 2008	490.17
15 November 2008	503.78
22 November 2008	512.39
29 November 2008	519.72
6 December 2008	530.53
13 December 2008	535.10
20 December 2008	546.26
27 December 2008	544.02
3 January 2009	527.94
10 January 2009	523.68

17 January 2009	526.29
24 January 2009	546.77
31 January 2009	580.89
7 February 2009	601.51
14 February 2009	615.62
21 February 2009	632.16
28 February 2009	636.78
7 March 2009	646.84
14 March 2009	649.93
21 March 2009	650.15
28 March 2009	658.03
4 April 2009	658.70
11 April 2009	651.03
18 April 2009	647.99
25 April 2009	638.20
2 May 2009	624.39
9 May 2009	631.91
16 May 2009	629.78
23 May 2009	627.32
30 May 2009	632.53
6 June 2009	623.08
13 June 2009	617.06
20 June 2009	618.17
27 June 2009	616.12
4 July 2009	606.95
11 July 2009	584.98
18 July 2009	567.27
25 July 2009	560.14
1 August 2009	556.55
8 August 2009	565.73
15 August 2009	571.16
22 August 2009	567.59
29 August 2009	572.99
5 September 2009	571.97
12 September 2009	564.27
19 September 2009	554.05
26 September 2009	548.47
3 October 2009	540.25
10 October 2009	532.88
17 October 2009	532.25
24 October 2009	526.90
31 October 2009	524.42
7 November 2009	520.51

14 November 2009	512.93
21 November 2009	495.59
28 November 2009	480.53
5 December 2009	473.11
12 December 2009	467.93
19 December 2009	465.82
26 December 2009	460.24
2 January 2010	449.90
9 January 2010	441.32
16 January 2010	448.23

Note: Vertical shading represents NBER recession dates: January 1980-July 1980, July 1981-November 1982, July 1990-March 1991, and March 2001-November 2001. A vertical line indicates the NBER peak in December 2007. Four-week moving average. Range for unchanged employment is approximately 350 to 450 thousand.

*Bottom-left panel*  
*Workweek and Temporary Employment*

Period	Workweek (Hours*)	Temp. help employment (Millions)
January 1990	34.37	1.16
February 1990	34.33	1.16
March 1990	34.37	1.17
April 1990	34.33	1.16
May 1990	34.33	1.16
June 1990	34.33	1.16
July 1990	34.33	1.16
August 1990	34.30	1.16
September 1990	34.23	1.16
October 1990	34.17	1.14
November 1990	34.17	1.14
December 1990	34.17	1.13
January 1991	34.17	1.14
February 1991	34.13	1.13
March 1991	34.07	1.12
April 1991	34.03	1.11
May 1991	34.00	1.11
June 1991	34.03	1.11
July 1991	34.07	1.11
August 1991	34.10	1.12
September 1991	34.10	1.13
October 1991	34.13	1.13
November 1991	34.13	1.13
December 1991	34.13	1.14
January 1992	34.10	1.15
February 1992	34.10	1.16
March 1992	34.10	1.17

April 1992	34.17	1.18
May 1992	34.20	1.20
June 1992	34.20	1.21
July 1992	34.17	1.21
August 1992	34.17	1.22
September 1992	34.23	1.23
October 1992	34.23	1.25
November 1992	34.23	1.26
December 1992	34.20	1.29
January 1993	34.23	1.30
February 1993	34.27	1.30
March 1993	34.23	1.32
April 1993	34.27	1.34
May 1993	34.27	1.36
June 1993	34.33	1.38
July 1993	34.33	1.40
August 1993	34.33	1.41
September 1993	34.37	1.43
October 1993	34.37	1.46
November 1993	34.40	1.47
December 1993	34.40	1.48
January 1994	34.40	1.50
February 1994	34.33	1.53
March 1994	34.37	1.57
April 1994	34.40	1.59
May 1994	34.50	1.60
June 1994	34.50	1.63
July 1994	34.53	1.65
August 1994	34.53	1.66
September 1994	34.50	1.69
October 1994	34.47	1.70
November 1994	34.47	1.72
December 1994	34.50	1.72
January 1995	34.50	1.74
February 1995	34.47	1.74
March 1995	34.43	1.74
April 1995	34.37	1.73
May 1995	34.30	1.72
June 1995	34.27	1.72
July 1995	34.27	1.72
August 1995	34.30	1.74
September 1995	34.30	1.78
October 1995	34.30	1.77

November 1995	34.30	1.77
December 1995	34.27	1.78
January 1996	34.10	1.75
February 1996	34.10	1.79
March 1996	34.13	1.79
April 1996	34.27	1.81
May 1996	34.27	1.83
June 1996	34.30	1.85
July 1996	34.33	1.87
August 1996	34.37	1.88
September 1996	34.37	1.89
October 1996	34.40	1.88
November 1996	34.40	1.91
December 1996	34.40	1.93
January 1997	34.37	1.95
February 1997	34.40	1.97
March 1997	34.43	2.00
April 1997	34.53	2.03
May 1997	34.57	2.05
June 1997	34.53	2.06
July 1997	34.50	2.08
August 1997	34.50	2.07
September 1997	34.57	2.08
October 1997	34.57	2.11
November 1997	34.57	2.14
December 1997	34.57	2.17
January 1998	34.60	2.18
February 1998	34.60	2.19
March 1998	34.57	2.19
April 1998	34.53	2.20
May 1998	34.50	2.22
June 1998	34.47	2.25
July 1998	34.47	2.25
August 1998	34.47	2.27
September 1998	34.47	2.24
October 1998	34.47	2.28
November 1998	34.47	2.31
December 1998	34.50	2.33
January 1999	34.47	2.36
February 1999	34.43	2.39
March 1999	34.37	2.40
April 1999	34.37	2.42
May 1999	34.37	2.44
June 1999	34.40	2.45

July 1999	34.40	2.48
August 1999	34.40	2.48
September 1999	34.40	2.47
October 1999	34.40	2.55
November 1999	34.40	2.57
December 1999	34.40	2.61
January 2000	34.40	2.62
February 2000	34.40	2.62
March 2000	34.37	2.64
April 2000	34.37	2.68
May 2000	34.33	2.65
June 2000	34.33	2.65
July 2000	34.30	2.65
August 2000	34.27	2.64
September 2000	34.23	2.65
October 2000	34.23	2.63
November 2000	34.23	2.64
December 2000	34.17	2.59
January 2001	34.13	2.56
February 2001	34.07	2.53
March 2001	34.10	2.48
April 2001	34.03	2.40
May 2001	34.03	2.38
June 2001	34.00	2.34
July 2001	34.00	2.32
August 2001	33.97	2.30
September 2001	33.90	2.25
October 2001	33.80	2.21
November 2001	33.77	2.16
December 2001	33.80	2.14
January 2002	33.83	2.15
February 2002	33.83	2.16
March 2002	33.83	2.19
April 2002	33.87	2.21
May 2002	33.90	2.22
June 2002	33.90	2.22
July 2002	33.87	2.20
August 2002	33.87	2.23
September 2002	33.87	2.20
October 2002	33.87	2.20
November 2002	33.83	2.18
December 2002	33.80	2.17
January 2003	33.80	2.19
February 2003	33.73	2.18

March 2003	33.73	2.17
April 2003	33.67	2.14
May 2003	33.70	2.18
June 2003	33.63	2.21
July 2003	33.63	2.26
August 2003	33.63	2.25
September 2003	33.63	2.26
October 2003	33.67	2.27
November 2003	33.67	2.28
December 2003	33.67	2.30
January 2004	33.67	2.29
February 2004	33.70	2.30
March 2004	33.73	2.31
April 2004	33.73	2.35
May 2004	33.73	2.38
June 2004	33.70	2.38
July 2004	33.70	2.39
August 2004	33.67	2.41
September 2004	33.70	2.42
October 2004	33.70	2.47
November 2004	33.70	2.46
December 2004	33.73	2.45
January 2005	33.73	2.46
February 2005	33.73	2.48
March 2005	33.70	2.49
April 2005	33.73	2.50
May 2005	33.73	2.50
June 2005	33.73	2.53
July 2005	33.70	2.54
August 2005	33.70	2.56
September 2005	33.73	2.59
October 2005	33.77	2.60
November 2005	33.80	2.63
December 2005	33.80	2.65
January 2006	33.83	2.63
February 2006	33.83	2.64
March 2006	33.83	2.64
April 2006	33.83	2.64
May 2006	33.83	2.65
June 2006	33.87	2.65
July 2006	33.87	2.64
August 2006	33.90	2.65
September 2006	33.87	2.63

October 2006	33.87	2.63
November 2006	33.87	2.63
December 2006	33.93	2.67
January 2007	33.90	2.66
February 2007	33.87	2.65
March 2007	33.83	2.65
April 2007	33.83	2.63
May 2007	33.87	2.61
June 2007	33.87	2.60
July 2007	33.87	2.58
August 2007	33.83	2.56
September 2007	33.80	2.53
October 2007	33.80	2.57
November 2007	33.80	2.57
December 2007	33.80	2.58
January 2008	33.77	2.56
February 2008	33.77	2.52
March 2008	33.77	2.49
April 2008	33.80	2.46
May 2008	33.77	2.43
June 2008	33.70	2.38
July 2008	33.63	2.35
August 2008	33.63	2.30
September 2008	33.63	2.26
October 2008	33.60	2.22
November 2008	33.50	2.13
December 2008	33.40	2.06
January 2009	33.33	1.97
February 2009	33.30	1.89
March 2009	33.23	1.84
April 2009	33.17	1.78
May 2009	33.10	1.78
June 2009	33.07	1.75
July 2009	33.07	1.75
August 2009	33.07	1.75
September 2009	33.10	1.77
October 2009	33.07	1.81
November 2009	33.10	1.87
December 2009	33.13	1.91
January 2010	33.21	ND
February 2010	33.23	ND
March 2010	33.25	ND

Note: Vertical lines [in early 1992, and mid-2003] show troughs in private employment.

\* Three-month moving average. [Return to table](#)

*Bottom-right panel*  
*Help Wanted*

Index, 1980 = 100

Period	Index
January 1978	88.00
February 1978	89.00
March 1978	91.00
April 1978	97.00
May 1978	96.00
June 1978	97.00
July 1978	96.00
August 1978	98.00
September 1978	99.00
October 1978	103.00
November 1978	102.00
December 1978	103.00
January 1979	102.00
February 1979	100.00
March 1979	100.00
April 1979	104.00
May 1979	103.00
June 1979	101.00
July 1979	101.00
August 1979	102.00
September 1979	105.00
October 1979	106.00
November 1979	100.00
December 1979	99.00
January 1980	97.00
February 1980	94.00
March 1980	93.00
April 1980	82.00
May 1980	76.00
June 1980	77.00
July 1980	77.00
August 1980	78.00
September 1980	81.00
October 1980	81.00
November 1980	84.00
December 1980	81.00
January 1981	80.00
February 1981	81.00

March 1981	81.00
April 1981	81.00
May 1981	80.00
June 1981	80.00
July 1981	80.00
August 1981	79.00
September 1981	75.00
October 1981	71.00
November 1981	70.00
December 1981	67.00
January 1982	67.00
February 1982	64.00
March 1982	62.00
April 1982	60.00
May 1982	59.00
June 1982	56.00
July 1982	53.00
August 1982	52.00
September 1982	49.00
October 1982	49.00
November 1982	50.00
December 1982	51.00
January 1983	52.00
February 1983	52.00
March 1983	54.00
April 1983	55.00
May 1983	60.00
June 1983	60.00
July 1983	64.00
August 1983	65.00
September 1983	67.00
October 1983	72.00
November 1983	73.00
December 1983	76.00
January 1984	78.00
February 1984	81.00
March 1984	81.00
April 1984	85.00
May 1984	86.00
June 1984	87.00
July 1984	89.00
August 1984	86.00
September 1984	88.00
October 1984	89.00

November 1984	88.00
December 1984	91.00
January 1985	89.00
February 1985	90.00
March 1985	92.00
April 1985	91.00
May 1985	92.00
June 1985	92.00
July 1985	91.00
August 1985	92.00
September 1985	93.00
October 1985	92.00
November 1985	93.00
December 1985	90.00
January 1986	91.00
February 1986	91.00
March 1986	91.00
April 1986	91.00
May 1986	90.00
June 1986	92.00
July 1986	91.00
August 1986	92.00
September 1986	93.00
October 1986	93.00
November 1986	97.00
December 1986	92.00
January 1987	91.00
February 1987	95.00
March 1987	99.00
April 1987	97.00
May 1987	99.00
June 1987	100.00
July 1987	100.00
August 1987	104.00
September 1987	103.00
October 1987	104.00
November 1987	106.00
December 1987	101.00
January 1988	102.00
February 1988	102.00
March 1988	104.00
April 1988	102.00
May 1988	105.00

June 1988	102.00
July 1988	104.00
August 1988	104.00
September 1988	100.00
October 1988	104.00
November 1988	102.00
December 1988	104.00
January 1989	104.00
February 1989	103.00
March 1989	99.00
April 1989	103.00
May 1989	98.00
June 1989	96.00
July 1989	96.00
August 1989	95.00
September 1989	95.00
October 1989	97.00
November 1989	94.00
December 1989	96.00
January 1990	97.00
February 1990	92.00
March 1990	90.00
April 1990	90.00
May 1990	86.00
June 1990	86.00
July 1990	85.00
August 1990	82.00
September 1990	81.00
October 1990	75.00
November 1990	71.00
December 1990	71.00
January 1991	67.00
February 1991	64.00
March 1991	63.00
April 1991	63.00
May 1991	61.00
June 1991	64.00
July 1991	61.00
August 1991	60.00
September 1991	62.00
October 1991	59.00
November 1991	60.00
December 1991	60.00
January 1992	59.00

February 1992	61.00
March 1992	64.00
April 1992	61.00
May 1992	63.00
June 1992	63.00
July 1992	61.00
August 1992	63.00
September 1992	62.00
October 1992	62.00
November 1992	66.00
December 1992	65.00
January 1993	66.00
February 1993	67.00
March 1993	66.00
April 1993	65.00
May 1993	68.00
June 1993	67.00
July 1993	68.00
August 1993	71.00
September 1993	71.00
October 1993	74.00
November 1993	74.00
December 1993	75.00
January 1994	76.00
February 1994	79.00
March 1994	80.00
April 1994	80.00
May 1994	83.00
June 1994	81.00
July 1994	85.00
August 1994	82.00
September 1994	83.00
October 1994	88.00
November 1994	87.00
December 1994	90.00
January 1995	87.00
February 1995	87.18
March 1995	85.36
April 1995	86.55
May 1995	80.69
June 1995	81.88
July 1995	86.12
August 1995	85.30

September 1995	85.50
October 1995	86.73
November 1995	83.87
December 1995	91.25
January 1996	86.34
February 1996	84.50
March 1996	86.78
April 1996	84.93
May 1996	82.04
June 1996	89.56
July 1996	84.58
August 1996	84.82
September 1996	89.26
October 1996	85.30
November 1996	91.89
December 1996	91.11
January 1997	90.32
February 1997	93.80
March 1997	93.03
April 1997	92.25
May 1997	87.17
June 1997	95.02
July 1997	92.09
August 1997	93.49
September 1997	98.18
October 1997	96.34
November 1997	102.18
December 1997	95.94
January 1998	99.62
February 1998	102.22
March 1998	101.50
April 1998	101.90
May 1998	102.31
June 1998	100.46
July 1998	100.88
August 1998	102.45
September 1998	98.31
October 1998	97.59
November 1998	102.64
December 1998	100.79
January 1999	107.07
February 1999	108.74
March 1999	104.56
April 1999	103.89

May 1999	105.58
June 1999	101.34
July 1999	103.06
August 1999	103.59
September 1999	100.51
October 1999	104.70
November 1999	104.05
December 1999	105.86
January 2000	111.40
February 2000	113.29
March 2000	111.45
April 2000	112.11
May 2000	105.18
June 2000	103.28
July 2000	105.20
August 2000	99.42
September 2000	102.66
October 2000	102.02
November 2000	98.75
December 2000	103.39
January 2001	102.77
February 2001	96.77
March 2001	90.69
April 2001	88.62
May 2001	82.40
June 2001	78.86
July 2001	80.85
August 2001	74.45
September 2001	75.03
October 2001	65.63
November 2001	64.72
December 2001	68.15
January 2002	68.72
February 2002	69.29
March 2002	68.40
April 2002	70.49
May 2002	66.57
June 2002	71.74
July 2002	67.77
August 2002	63.73
September 2002	67.46
October 2002	63.34
November 2002	63.95
December 2002	62.95

January 2003	66.83
February 2003	67.50
March 2003	64.85
April 2003	62.15
May 2003	61.10
June 2003	65.17
July 2003	65.86
August 2003	64.82
September 2003	65.53
October 2003	64.46
November 2003	68.80
December 2003	69.58
January 2004	70.38
February 2004	74.94
March 2004	73.93
April 2004	72.89
May 2004	75.70
June 2004	74.66
July 2004	73.59
August 2004	74.50
September 2004	73.40
October 2004	76.39
November 2004	75.28
December 2004	80.50
January 2005	90.14
February 2005	89.16
March 2005	85.95
April 2005	87.11
May 2005	86.04
June 2005	87.88
July 2005	87.12
August 2005	87.27
September 2005	88.73
October 2005	88.45
November 2005	92.70
December 2005	92.40
January 2006	95.86
February 2006	98.06
March 2006	96.12
April 2006	94.15
May 2006	91.82
June 2006	92.54
July 2006	93.88

August 2006	92.82
September 2006	91.67
October 2006	94.84
November 2006	91.53
December 2006	101.72
January 2007	99.17
February 2007	98.51
March 2007	98.73
April 2007	100.94
May 2007	96.70
June 2007	95.19
July 2007	95.74
August 2007	92.63
September 2007	97.47
October 2007	94.04
November 2007	92.58
December 2007	93.10
January 2008	94.03
February 2008	93.58
March 2008	90.25
April 2008	87.70
May 2008	88.81
June 2008	87.11
July 2008	83.59
August 2008	80.26
September 2008	75.70
October 2008	73.32
November 2008	71.75
December 2008	65.55
January 2009	51.08
February 2009	55.36
March 2009	52.99
April 2009	49.56
May 2009	52.45
June 2009	51.92
July 2009	52.46
August 2009	57.53
September 2009	53.04
October 2009	52.18
November 2009	51.54
December 2009	58.08

Note: Vertical lines [at the end of 1982, in early 1992, and mid-2003] show troughs in private employment.

Three-month moving average.

# Exhibit 7

## Inflation

### *Top-left panel* *Unemployment and NAIRU*

Percent

Period	Unemployment rate	NAIRU	NAIRU+EEB effects	Resource slack (approximate) [unemployment rate minus (NAIRU+EEB effects)]
2002:Q1	5.70	5.00	5.01	0.69
2002:Q2	5.84	4.99	5.25	0.59
2002:Q3	5.73	4.98	5.20	0.53
2002:Q4	5.85	4.96	5.13	0.72
2003:Q1	5.87	4.92	5.07	0.80
2003:Q2	6.15	4.90	5.07	1.08
2003:Q3	6.10	4.88	5.06	1.04
2003:Q4	5.82	4.88	5.05	0.77
2004:Q1	5.68	4.88	4.96	0.72
2004:Q2	5.59	4.90	4.90	0.69
2004:Q3	5.43	4.87	4.87	0.56
2004:Q4	5.39	4.88	4.88	0.51
2005:Q1	5.28	4.86	4.86	0.42
2005:Q2	5.11	4.84	4.84	0.27
2005:Q3	4.97	4.86	4.86	0.11
2005:Q4	4.95	4.84	4.84	0.11
2006:Q1	4.72	4.83	4.83	-0.11
2006:Q2	4.65	4.84	4.84	-0.19
2006:Q3	4.64	4.83	4.83	-0.19
2006:Q4	4.46	4.83	4.83	-0.37
2007:Q1	4.51	4.84	4.84	-0.33
2007:Q2	4.49	4.81	4.81	-0.32
2007:Q3	4.66	4.79	4.79	-0.13
2007:Q4	4.83	4.80	4.80	0.03
2008:Q1	4.95	4.79	4.79	0.16
2008:Q2	5.31	4.76	4.76	0.55
2008:Q3	6.03	4.82	5.05	0.98
2008:Q4	6.94	4.89	5.16	1.78
2009:Q1	8.20	5.07	5.54	2.66
2009:Q2	9.27	5.20	5.80	3.47
2009:Q3	9.66	5.22	5.96	3.70
2009:Q4	10.03	5.22	6.06	3.97
<i>Forecast</i>				

2010:Q1	10.06	5.22	6.15	3.91
2010:Q2	9.89	5.22	6.15	3.74
2010:Q3	9.71	5.22	6.14	3.57
2010:Q4	9.53	5.22	6.15	3.38
2011:Q1	9.15	5.22	6.15	3.00
2011:Q2	8.88	5.22	6.15	2.73
2011:Q3	8.57	5.22	6.15	2.42
2011:Q4	8.23	5.22	6.15	2.08

*Top-right panel*  
*Long-term Inflation Expectations*

**TIPS, five-to-ten years ahead**

Period	Percent
9 January 2002	2.73
16 January 2002	2.66
23 January 2002	2.61
30 January 2002	2.55
6 February 2002	2.51
13 February 2002	2.62
20 February 2002	2.59
27 February 2002	2.60
6 March 2002	2.68
13 March 2002	2.79
20 March 2002	2.87
27 March 2002	2.85
3 April 2002	2.90
10 April 2002	2.82
17 April 2002	2.80
24 April 2002	2.81
1 May 2002	2.70
8 May 2002	2.74
15 May 2002	2.86
22 May 2002	2.85
29 May 2002	2.81
5 June 2002	2.78
12 June 2002	2.74
19 June 2002	2.60
26 June 2002	2.58
3 July 2002	2.63
10 July 2002	2.56
17 July 2002	2.66
24 July 2002	2.76
31 July 2002	2.88

7 August 2002	2.91
14 August 2002	2.83
21 August 2002	2.88
28 August 2002	2.94
4 September 2002	2.80
11 September 2002	2.77
18 September 2002	2.68
25 September 2002	2.61
2 October 2002	2.57
9 October 2002	2.54
16 October 2002	2.65
23 October 2002	2.81
30 October 2002	2.82
6 November 2002	2.87
13 November 2002	2.65
20 November 2002	2.73
27 November 2002	2.84
4 December 2002	2.92
11 December 2002	2.76
18 December 2002	2.77
25 December 2002	2.74
1 January 2003	2.64
8 January 2003	2.71
15 January 2003	2.88
22 January 2003	2.83
29 January 2003	2.83
5 February 2003	2.79
12 February 2003	2.83
19 February 2003	2.83
26 February 2003	2.77
5 March 2003	2.67
12 March 2003	2.64
19 March 2003	2.61
26 March 2003	2.58
2 April 2003	2.60
9 April 2003	2.59
16 April 2003	2.53
23 April 2003	2.49
30 April 2003	2.51
7 May 2003	2.53
14 May 2003	2.50
21 May 2003	2.45
28 May 2003	2.44
4 June 2003	2.45

11 June 2003	2.40
18 June 2003	2.34
25 June 2003	2.35
2 July 2003	2.37
9 July 2003	2.39
16 July 2003	2.71
23 July 2003	2.85
30 July 2003	3.02
6 August 2003	3.11
13 August 2003	2.98
20 August 2003	3.16
27 August 2003	3.09
3 September 2003	3.05
10 September 2003	3.04
17 September 2003	2.95
24 September 2003	2.87
1 October 2003	2.80
8 October 2003	2.90
15 October 2003	3.03
22 October 2003	3.08
29 October 2003	3.19
5 November 2003	3.28
12 November 2003	3.31
19 November 2003	3.25
26 November 2003	3.12
3 December 2003	3.21
10 December 2003	3.16
17 December 2003	3.04
24 December 2003	2.96
31 December 2003	3.03
7 January 2004	3.06
14 January 2004	2.94
21 January 2004	2.83
28 January 2004	2.89
4 February 2004	2.91
11 February 2004	2.88
18 February 2004	2.84
25 February 2004	2.79
3 March 2004	2.91
10 March 2004	2.88
17 March 2004	2.81
24 March 2004	2.81
31 March 2004	2.94

7 April 2004	3.03
14 April 2004	3.06
21 April 2004	3.07
28 April 2004	2.97
5 May 2004	2.95
12 May 2004	3.12
19 May 2004	3.27
26 May 2004	3.29
2 June 2004	3.26
9 June 2004	3.22
16 June 2004	3.09
23 June 2004	3.03
30 June 2004	3.03
7 July 2004	3.07
14 July 2004	2.97
21 July 2004	2.92
28 July 2004	2.96
4 August 2004	2.97
11 August 2004	2.91
18 August 2004	2.92
25 August 2004	2.94
1 September 2004	2.89
8 September 2004	2.88
15 September 2004	2.85
22 September 2004	2.76
29 September 2004	2.71
6 October 2004	2.74
13 October 2004	2.80
20 October 2004	2.75
27 October 2004	2.65
3 November 2004	2.73
10 November 2004	2.78
17 November 2004	2.77
24 November 2004	2.79
1 December 2004	2.83
8 December 2004	2.82
15 December 2004	2.79
22 December 2004	2.88
29 December 2004	2.95
5 January 2005	2.82
12 January 2005	2.71
19 January 2005	2.69
26 January 2005	2.68
2 February 2005	2.66

9 February 2005	2.54
16 February 2005	2.57
23 February 2005	2.64
2 March 2005	2.70
9 March 2005	2.75
16 March 2005	2.80
23 March 2005	2.82
30 March 2005	2.77
6 April 2005	2.74
13 April 2005	2.72
20 April 2005	2.74
27 April 2005	2.67
4 May 2005	2.64
11 May 2005	2.65
18 May 2005	2.60
25 May 2005	2.54
1 June 2005	2.49
8 June 2005	2.46
15 June 2005	2.46
22 June 2005	2.44
29 June 2005	2.38
6 July 2005	2.38
13 July 2005	2.37
20 July 2005	2.38
27 July 2005	2.45
3 August 2005	2.47
10 August 2005	2.49
17 August 2005	2.47
24 August 2005	2.49
31 August 2005	2.46
7 September 2005	2.50
14 September 2005	2.51
21 September 2005	2.57
28 September 2005	2.59
5 October 2005	2.59
12 October 2005	2.52
19 October 2005	2.60
26 October 2005	2.60
2 November 2005	2.70
9 November 2005	2.76
16 November 2005	2.64
23 November 2005	2.58
30 November 2005	2.55

7 December 2005	2.56
14 December 2005	2.55
21 December 2005	2.53
28 December 2005	2.47
4 January 2006	2.46
11 January 2006	2.46
18 January 2006	2.51
25 January 2006	2.52
1 February 2006	2.58
8 February 2006	2.57
15 February 2006	2.57
22 February 2006	2.52
1 March 2006	2.52
8 March 2006	2.60
15 March 2006	2.60
22 March 2006	2.56
29 March 2006	2.56
5 April 2006	2.59
12 April 2006	2.62
19 April 2006	2.66
26 April 2006	2.72
3 May 2006	2.80
10 May 2006	2.75
17 May 2006	2.78
24 May 2006	2.71
31 May 2006	2.72
7 June 2006	2.68
14 June 2006	2.60
21 June 2006	2.65
28 June 2006	2.65
5 July 2006	2.67
12 July 2006	2.63
19 July 2006	2.63
26 July 2006	2.65
2 August 2006	2.68
9 August 2006	2.70
16 August 2006	2.71
23 August 2006	2.72
30 August 2006	2.71
6 September 2006	2.67
13 September 2006	2.65
20 September 2006	2.63
27 September 2006	2.57
4 October 2006	2.56

11 October 2006	2.57
18 October 2006	2.57
25 October 2006	2.61
1 November 2006	2.61
8 November 2006	2.63
15 November 2006	2.61
22 November 2006	2.54
29 November 2006	2.50
6 December 2006	2.54
13 December 2006	2.55
20 December 2006	2.50
27 December 2006	2.44
3 January 2007	2.47
10 January 2007	2.44
17 January 2007	2.44
24 January 2007	2.51
31 January 2007	2.55
7 February 2007	2.50
14 February 2007	2.48
21 February 2007	2.48
28 February 2007	2.49
7 March 2007	2.46
14 March 2007	2.44
21 March 2007	2.48
28 March 2007	2.55
4 April 2007	2.55
11 April 2007	2.58
18 April 2007	2.54
25 April 2007	2.51
2 May 2007	2.50
9 May 2007	2.46
16 May 2007	2.43
23 May 2007	2.45
30 May 2007	2.52
6 June 2007	2.55
13 June 2007	2.63
20 June 2007	2.64
27 June 2007	2.68
4 July 2007	2.62
11 July 2007	2.63
18 July 2007	2.62
25 July 2007	2.65
1 August 2007	2.68

8 August 2007	2.65
15 August 2007	2.68
22 August 2007	2.70
29 August 2007	2.69
5 September 2007	2.68
12 September 2007	2.69
19 September 2007	2.77
26 September 2007	2.80
3 October 2007	2.80
10 October 2007	2.79
17 October 2007	2.78
24 October 2007	2.74
31 October 2007	2.76
7 November 2007	2.78
14 November 2007	2.79
21 November 2007	2.76
28 November 2007	2.75
5 December 2007	2.73
12 December 2007	2.73
19 December 2007	2.73
26 December 2007	2.76
2 January 2008	2.71
9 January 2008	2.65
16 January 2008	2.75
23 January 2008	2.86
30 January 2008	2.97
6 February 2008	2.99
13 February 2008	2.99
20 February 2008	2.93
27 February 2008	2.93
5 March 2008	3.04
12 March 2008	3.18
19 March 2008	3.11
26 March 2008	2.99
2 April 2008	3.05
9 April 2008	2.98
16 April 2008	2.95
23 April 2008	2.87
30 April 2008	2.77
7 May 2008	2.81
14 May 2008	2.83
21 May 2008	2.84
28 May 2008	2.86
4 June 2008	2.88

11 June 2008	2.87
18 June 2008	2.79
25 June 2008	2.75
2 July 2008	2.78
9 July 2008	2.84
16 July 2008	2.79
23 July 2008	2.83
30 July 2008	2.87
6 August 2008	2.86
13 August 2008	2.79
20 August 2008	2.79
27 August 2008	2.80
3 September 2008	2.78
10 September 2008	2.73
17 September 2008	2.74
24 September 2008	2.88
1 October 2008	2.78
8 October 2008	2.64
15 October 2008	2.98
22 October 2008	3.39
29 October 2008	3.39
5 November 2008	3.43
12 November 2008	3.39
19 November 2008	2.92
26 November 2008	2.15
3 December 2008	2.62
10 December 2008	2.63
17 December 2008	2.50
24 December 2008	2.12
31 December 2008	2.08
7 January 2009	2.18
14 January 2009	2.50
21 January 2009	2.39
28 January 2009	2.67
4 February 2009	2.75
11 February 2009	2.73
18 February 2009	2.64
25 February 2009	2.62
4 March 2009	2.41
11 March 2009	2.27
18 March 2009	2.46
25 March 2009	2.46
1 April 2009	2.46

8 April 2009	2.40
15 April 2009	2.44
22 April 2009	2.40
29 April 2009	2.55
6 May 2009	2.52
13 May 2009	2.64
20 May 2009	2.75
27 May 2009	2.99
3 June 2009	3.09
10 June 2009	2.97
17 June 2009	2.77
24 June 2009	2.85
1 July 2009	2.87
8 July 2009	2.77
15 July 2009	2.78
22 July 2009	3.00
29 July 2009	3.05
5 August 2009	3.12
12 August 2009	3.26
19 August 2009	3.18
26 August 2009	3.15
2 September 2009	3.02
9 September 2009	3.04
16 September 2009	2.96
23 September 2009	2.94
30 September 2009	2.88
7 October 2009	2.79
14 October 2009	2.93
21 October 2009	3.04
28 October 2009	2.98
4 November 2009	3.01
11 November 2009	3.19
18 November 2009	3.17
25 November 2009	3.12
2 December 2009	3.04
9 December 2009	3.07
16 December 2009	3.11
23 December 2009	3.17
30 December 2009	3.20
6 January 2010	3.23
13 January 2010	3.24
20 January 2010	3.13
25 January 2010	3.06

**Reuters/Michigan, next  
five-to-ten years**

Period	Percent
January 2002	2.7
February 2002	2.8
March 2002	2.8
April 2002	2.8
May 2002	3.0
June 2002	2.8
July 2002	2.8
August 2002	2.9
September 2002	2.5
October 2002	2.8
November 2002	2.8
December 2002	2.8
January 2003	2.7
February 2003	2.7
March 2003	2.8
April 2003	2.7
May 2003	2.8
June 2003	2.7
July 2003	2.7
August 2003	2.7
September 2003	2.7
October 2003	2.8
November 2003	2.7
December 2003	2.8
January 2004	2.8
February 2004	2.9
March 2004	2.9
April 2004	2.7
May 2004	2.8
June 2004	2.9
July 2004	2.8
August 2004	2.7
September 2004	2.8
October 2004	2.8
November 2004	2.7
December 2004	2.8
January 2005	2.7
February 2005	2.8
March 2005	2.9
April 2005	3.0
May 2005	2.9

June 2005	2.8
July 2005	2.9
August 2005	2.8
September 2005	3.1
October 2005	3.2
November 2005	3.0
December 2005	3.1
January 2006	2.9
February 2006	2.9
March 2006	2.9
April 2006	3.1
May 2006	3.2
June 2006	2.9
July 2006	2.9
August 2006	3.2
September 2006	3.0
October 2006	3.1
November 2006	3.0
December 2006	3.0
January 2007	3.0
February 2007	2.9
March 2007	2.9
April 2007	3.1
May 2007	3.1
June 2007	2.9
July 2007	3.1
August 2007	2.9
September 2007	2.9
October 2007	2.8
November 2007	2.9
December 2007	3.1
January 2008	3.0
February 2008	3.0
March 2008	2.9
April 2008	3.2
May 2008	3.4
June 2008	3.4
July 2008	3.2
August 2008	3.2
September 2008	3.0
October 2008	2.9
November 2008	2.9
December 2008	2.6
January 2009	2.9

February 2009	3.1
March 2009	2.6
April 2009	2.8
May 2009	2.9
June 2009	3.0
July 2009	3.0
August 2009	2.8
September 2009	2.8
October 2009	2.9
November 2009	3.0
December 2009	2.7
January 2010 <sup>P</sup>	2.8

### SPF, next ten years

Period	Percent
2002:Q1	2.50
2002:Q2	2.50
2002:Q3	2.50
2002:Q4	2.45
2003:Q1	2.50
2003:Q2	2.50
2003:Q3	2.50
2003:Q4	2.50
2004:Q1	2.50
2004:Q2	2.50
2004:Q3	2.50
2004:Q4	2.50
2005:Q1	2.45
2005:Q2	2.50
2005:Q3	2.50
2005:Q4	2.50
2006:Q1	2.50
2006:Q2	2.50
2006:Q3	2.50
2006:Q4	2.50
2007:Q1	2.35
2007:Q2	2.40
2007:Q3	2.40
2007:Q4	2.40
2008:Q1	2.50
2008:Q2	2.50
2008:Q3	2.50
2008:Q4	2.50

2009:Q1	2.40
2009:Q2	2.50
2009:Q3	2.50
2009:Q4	2.26

*Middle-left panel*  
*Compensation per Hour and Unit Labor Costs\**

Percent change, Q4/Q4

Period	Compensation	Unit labor costs
2007	3.60	0.70
2008	2.60	1.60
2009	2.48	-2.45
<i>Forecast</i>		
2010	2.40	1.60
2011	2.25	1.16

\* Nonfarm business sector. [Return to text](#)

*Middle-right panel*  
*Core Nonfuel Import Prices*

Index, 2005 = 100

Period	Current	Dec. GB
2007:Q1	103.77	ND
2007:Q2	104.56	ND
2007:Q3	105.49	ND
2007:Q4	106.76	ND
2008:Q1	108.98	ND
2008:Q2	112.02	ND
2008:Q3	113.52	ND
2008:Q4	110.84	ND
2009:Q1	108.13	ND
2009:Q2	107.51	107.51
2009:Q3	107.85	107.84
<i>Forecast</i>		
2009:Q4	109.35	109.28
2010:Q1	110.56	110.23
2010:Q2	111.18	110.69
2010:Q3	111.58	111.03
2010:Q4	111.92	111.33
2011:Q1	112.21	111.62
2011:Q2	112.50	111.91
2011:Q3	112.79	112.19
2011:Q4	113.08	112.47

*Bottom panel*  
*PCE Price Projections*

Percent change, Q4/Q4

Period	Core PCE	PCE price index
2008	2.04	1.73
2009	1.48	1.32
<i>Forecast</i>		
2010	1.16	1.44
2011	1.05	1.13

**Exhibit 8**  
**Foreign Growth Outlook**

*Top-left panel*  
*Real GDP and Consumer Prices\**

Percent change, annual rate

		2009	2010 <sup>P</sup>	2011 <sup>P</sup>
		Q3	Q4 <sup>e</sup>	
<b>1.</b>	<b>Total Foreign GDP</b>	<b>4.4</b>	<b>2.7</b>	<b>3.6</b>
	<i>June Greenbook</i>	1.5	1.8	3.1
				<i>n.a.</i>
<b>2.</b>	<b>Emerging Market Economies</b>	<b>9.2</b>	<b>3.6</b>	<b>4.9</b>
3.	China	10.8	10.1	8.6
4.	Other Emerging Asia	10.0	1.8	5.0
5.	Mexico	12.2	2.5	3.8
6.	Brazil	5.1	6.0	4.9
				4.0
<b>7.</b>	<b>Advanced Foreign Economies</b>	<b>0.8</b>	<b>2.0</b>	<b>2.6</b>
8.	Japan	1.3	1.8	2.0
9.	Euro Area	1.7	1.0	2.1
10.	United Kingdom	-0.6	0.4	2.5
11.	Canada	0.4	3.2	3.2
				3.8
<b>12.</b>	<b>Total Foreign CPI</b>	<b>1.5</b>	<b>3.2</b>	<b>2.2</b>
				<b>2.0</b>

\* GDP aggregates weighted by U.S. goods exports; CPI by U.S. non-oil goods imports. Updated since January Greenbook. [Return to text](#)

*Top-right panel*  
*Commodity Prices*

Period	Oil import price (Dollars per barrel)	Nonfuel index*
January 2008	91.88	100.00
February 2008	93.48	106.48

March 2008	96.57	110.31
April 2008	98.37	109.67
May 2008	104.05	108.20
June 2008	113.23	109.08
July 2008	115.12	109.68
August 2008	110.50	103.15
September 2008	103.15	97.78
October 2008	91.35	82.99
November 2008	67.30	76.26
December 2008	51.89	70.00
January 2009	44.02	70.90
February 2009	44.66	69.10
March 2009	45.23	68.69
April 2009	47.44	72.25
May 2009	50.48	76.21
June 2009	58.07	79.16
July 2009	58.42	79.84
August 2009	61.96	84.63
September 2009	66.51	83.62
October 2009	68.55	84.83
November 2009	75.95	88.16
December 2009	74.32	91.66
<i>Forecast</i>		
January 2010	76.89	93.21
February 2010	76.38	92.99
March 2010	76.38	93.20
April 2010	76.38	93.41
May 2010	76.66	93.58
June 2010	77.10	93.66
July 2010	77.52	93.76
August 2010	77.88	93.77
September 2010	78.22	93.72
October 2010	78.56	93.75
November 2010	79.07	93.78
December 2010	79.59	93.89
January 2011	79.94	94.00
February 2011	80.24	94.10
March 2011	80.54	94.21
April 2011	80.84	94.25
May 2011	81.07	94.28
June 2011	81.28	94.33
July 2011	81.48	94.38
August 2011	81.69	94.44
September 2011	81.91	94.49

October 2011	82.13	94.53
November 2011	82.38	94.58
December 2011	82.64	94.64

\* Jan 2008 = 100. [Return to table](#)

*Middle-left panel*  
*China*

Index, June 2007 = 100

Period	Exports	Industrial production
June 2007	100.00	100.00
July 2007	101.32	101.10
August 2007	100.62	102.42
September 2007	103.06	103.62
October 2007	103.33	104.98
November 2007	109.52	106.85
December 2007	112.75	109.35
January 2008	116.10	108.67
February 2008	114.00	108.93
March 2008	113.04	112.13
April 2008	120.02	113.98
May 2008	122.25	114.49
June 2008	121.42	115.78
July 2008	124.72	115.71
August 2008	125.10	116.00
September 2008	129.09	117.75
October 2008	120.09	113.17
November 2008	110.71	112.89
December 2008	102.48	114.07
January 2009	103.64	119.61
February 2009	77.06	118.97
March 2009	94.25	121.23
April 2009	91.77	122.29
May 2009	90.69	124.12
June 2009	94.25	127.55
July 2009	97.15	128.80
August 2009	95.74	130.75
September 2009	106.84	132.41
October 2009	104.96	132.51
November 2009	109.04	135.05
December 2009	122.05	136.34

*Middle-center panel*  
*Emerging Asia ex. China\**

Index, June 2007 = 100

Period	Exports	Industrial production
June 2007	100.00	100.00
July 2007	99.84	105.71
August 2007	100.94	104.04
September 2007	98.77	101.90
October 2007	108.99	104.92
November 2007	109.24	105.22
December 2007	109.44	105.97
January 2008	116.34	108.44
February 2008	114.28	108.27
March 2008	113.87	108.62
April 2008	124.17	106.60
May 2008	124.25	105.42
June 2008	120.66	105.64
July 2008	131.06	105.43
August 2008	120.53	104.31
September 2008	114.89	104.32
October 2008	109.26	100.24
November 2008	89.64	96.06
December 2008	85.81	90.14
January 2009	76.40	89.43
February 2009	85.97	93.73
March 2009	83.31	93.37
April 2009	88.60	99.25
May 2009	84.92	99.95
June 2009	92.30	102.43
July 2009	98.42	106.99
August 2009	94.48	105.82
September 2009	99.28	107.02
October 2009	103.22	105.96
November 2009	103.94	106.55

\* Also excludes Hong Kong and Philippines due to data availability. [Return to text](#)

### *Middle-right panel* *Latin America*

Index, June 2007 = 100

Period	Brazilian IP	Mexican IP
June 2007	100.00	100.00
July 2007	99.90	100.26
August 2007	101.61	99.74
September 2007	100.53	100.26
October 2007	104.84	100.00

November 2007	102.74	99.05
December 2007	102.13	100.52
January 2008	103.78	100.95
February 2008	103.67	101.04
March 2008	104.41	100.95
April 2008	104.85	100.17
May 2008	103.58	100.35
June 2008	107.26	100.00
July 2008	107.49	99.14
August 2008	106.00	99.14
September 2008	107.70	97.41
October 2008	104.70	97.50
November 2008	97.49	95.17
December 2008	85.12	93.27
January 2009	87.88	90.77
February 2009	89.98	91.63
March 2009	91.12	90.42
April 2009	92.26	91.63
May 2009	93.66	89.91
June 2009	94.17	89.30
July 2009	96.46	92.49
August 2009	97.66	91.29
September 2009	99.36	91.72
October 2009	101.62	92.58
November 2009	101.37	93.53

*Bottom-left panel*  
*Japan*

Index, June 2007 = 100

Period	Real exports	Household spending
June 2007	100.00	100.00
July 2007	100.42	96.48
August 2007	105.99	99.70
September 2007	103.49	99.40
October 2007	104.83	99.50
November 2007	105.49	98.79
December 2007	105.99	101.21
January 2008	109.65	101.61
February 2008	105.82	98.09
March 2008	109.40	96.98
April 2008	104.66	96.78
May 2008	106.82	98.09
June 2008	106.16	96.18

July 2008	107.40	97.39
August 2008	106.82	95.88
September 2008	106.57	96.38
October 2008	104.08	96.28
November 2008	89.35	97.69
December 2008	80.87	96.78
January 2009	66.64	95.98
February 2009	64.31	96.28
March 2009	64.23	96.08
April 2009	69.13	95.18
May 2009	72.71	97.29
June 2009	77.04	96.98
July 2009	78.95	95.68
August 2009	79.95	97.49
September 2009	84.36	97.59
October 2009	87.10	98.29
November 2009	87.69	98.39

*Bottom-right panel*  
*Euro Area*

Index, June 2007 = 100

Period	Retail sales	Industrial production
June 2007	100.00	100.00
July 2007	100.22	100.68
August 2007	100.16	100.89
September 2007	100.15	100.43
October 2007	100.01	100.95
November 2007	99.75	101.09
December 2007	99.63	100.67
January 2008	100.40	101.93
February 2008	100.29	101.94
March 2008	99.44	101.91
April 2008	99.20	102.20
May 2008	99.83	100.48
June 2008	99.03	99.76
July 2008	98.83	99.56
August 2008	98.66	99.23
September 2008	99.03	98.89
October 2008	97.80	94.04
November 2008	98.65	92.48
December 2008	97.92	86.95
January 2009	97.67	86.07
February 2009	97.12	82.20

March 2009	97.03	81.98
April 2009	97.20	81.60
May 2009	96.72	82.48
June 2009	96.77	83.29
July 2009	96.77	83.65
August 2009	96.57	84.62
September 2009	96.14	84.85
October 2009	96.41	84.63
November 2009	95.30	85.58

## Exhibit 9 Advanced Foreign Economies (AFE)

### *Top panel* *Projected Private Final Demand Growth*

Percent

Period	Euro area	Japan	United Kingdom	Canada
2009:H2	-1.04	0.40	0.91	3.68
2010	0.96	1.22	1.64	3.59
2011	2.59	1.62	2.93	3.78

[Data for 2010 and 2011 are approximate.]

### *Middle-left panel* *Gross Debt to GDP*

Percent

Period	Euro area	Japan	United Kingdom	Canada
2001	73.74	143.68	40.39	82.66
2002	74.06	152.28	40.83	80.55
2003	74.99	157.98	41.16	76.56
2004	75.79	165.54	43.46	72.60
2005	76.82	175.27	46.09	71.61
2006	74.43	172.15	45.85	69.46
2007	70.94	167.10	46.95	64.98
2008	73.20	172.10	52.40	69.70
2009	78.20	189.30	67.70	82.80
<i>Forecast</i>				
2010	82.40	195.90	76.40	84.30
2011	85.20	202.10	81.60	84.40

Sources: OECD, staff forecast.

### *Middle-center panel* *10-Yr. Govt. Yield Spreads\**

## Basis points

Period	Spain	Portugal	Italy	Greece	Ireland
5 October 2009	62.8	66.8	92.4	130.4	167.2
6 October 2009	62.2	63.8	90.4	131.0	161.4
7 October 2009	62.4	64.6	90.0	131.8	158.0
8 October 2009	61.2	64.5	88.7	130.1	155.7
9 October 2009	59.1	62.3	85.8	126.1	153.9
12 October 2009	59.6	62.8	87.1	127.1	154.1
13 October 2009	63.4	65.7	91.4	131.5	157.0
14 October 2009	61.5	63.1	90.1	130.5	156.0
15 October 2009	60.5	62.4	90.5	132.4	154.0
16 October 2009	58.6	60.3	88.4	136.9	153.4
19 October 2009	56.6	59.4	85.7	135.3	153.6
20 October 2009	56.8	58.8	85.5	134.6	151.3
21 October 2009	53.7	53.2	83.8	131.2	146.3
22 October 2009	52.9	53.2	83.8	131.3	146.9
23 October 2009	52.5	54.5	84.2	134.2	147.2
26 October 2009	51.3	54.1	82.7	133.5	144.9
27 October 2009	53.1	55.2	82.7	136.9	145.6
28 October 2009	52.9	54.2	82.4	136.3	145.9
29 October 2009	54.6	54.6	82.3	138.2	145.3
30 October 2009	55.7	56.2	84.3	142.3	146.8
2 November 2009	54.7	53.1	82.6	139.5	147.1
3 November 2009	55.3	51.7	82.0	139.1	145.5
4 November 2009	53.8	49.8	79.3	138.2	143.9
5 November 2009	53.5	49.0	77.6	137.6	140.9
6 November 2009	53.1	49.9	76.8	138.2	140.3
9 November 2009	53.2	49.6	76.8	137.5	140.1
10 November 2009	53.0	49.5	76.2	138.7	142.8
11 November 2009	46.4	42.1	69.4	132.2	136.7
12 November 2009	46.4	42.0	69.0	132.0	136.2
13 November 2009	49.2	43.6	71.7	140.0	139.9
16 November 2009	52.5	48.1	74.7	153.9	148.3
17 November 2009	50.3	47.6	74.0	147.7	139.8
18 November 2009	52.3	49.0	75.1	156.0	142.9
19 November 2009	55.3	53.0	78.9	169.7	149.2
20 November 2009	57.2	55.3	80.7	172.3	153.2
23 November 2009	56.6	54.0	78.8	166.2	149.8
24 November 2009	56.3	53.6	79.3	173.6	152.0
25 November 2009	55.6	54.5	79.5	179.4	155.3
26 November 2009	59.5	62.0	88.8	201.6	168.5
27 November 2009	60.8	62.3	87.1	194.2	170.6
30 November 2009	58.8	59.5	85.8	183.6	168.5
1 December 2009	58.1	57.5	83.5	172.9	164.4

2 December 2009	58.3	56.9	82.0	168.7	162.8
3 December 2009	57.3	56.0	81.1	171.3	160.9
4 December 2009	54.3	52.8	76.1	176.5	159.8
7 December 2009	55.9	58.0	76.7	195.2	163.5
8 December 2009	60.7	65.5	82.8	221.0	170.5
9 December 2009	69.5	77.4	87.5	246.8	189.7
10 December 2009	68.6	74.4	85.4	227.0	178.5
11 December 2009	62.6	68.8	81.9	208.4	165.9
14 December 2009	61.2	67.4	82.3	228.8	164.2
15 December 2009	61.1	67.8	79.9	249.8	162.4
16 December 2009	59.1	66.6	79.9	231.8	153.7
17 December 2009	64.6	71.7	82.5	253.2	158.7
18 December 2009	70.5	78.6	84.0	265.9	160.5
21 December 2009	73.7	81.5	84.4	276.9	159.1
22 December 2009	65.9	72.8	76.3	248.3	151.8
23 December 2009	63.3	69.5	72.7	242.3	147.7
24 December 2009	62.1	68.6	72.6	241.7	147.7
25 December 2009	62.6	69.4	73.1	242.4	148.2
28 December 2009	60.6	68.8	71.2	238.0	147.4
29 December 2009	58.7	67.5	73.5	236.6	146.2
30 December 2009	58.8	68.8	75.4	238.7	144.7
31 December 2009	59.1	68.2	75.5	238.7	145.2
1 January 2010	59.1	69.0	75.5	238.7	145.1
4 January 2010	57.9	67.3	71.7	233.1	138.0
5 January 2010	59.2	67.6	72.8	227.9	141.8
6 January 2010	62.2	69.1	73.9	227.1	151.2
7 January 2010	61.3	67.3	72.4	227.3	144.8
8 January 2010	57.0	61.2	69.3	220.0	140.2
11 January 2010	61.6	65.8	71.0	217.5	140.6
12 January 2010	63.5	69.4	74.2	234.5	144.2
13 January 2010	65.9	76.4	78.6	257.7	151.5
14 January 2010	69.8	88.6	80.6	277.6	157.4
15 January 2010	70.4	92.9	81.1	273.4	156.7
18 January 2010	72.5	94.3	81.2	268.1	156.9
19 January 2010	73.1	92.3	78.6	264.3	147.4
20 January 2010	79.6	104.4	85.2	293.8	161.3
21 January 2010	80.2	104.4	86.8	288.1	156.7
22 January 2010	81.5	109.2	86.3	304.8	159.5
25 January 2010	74.0	98.0	82.9	297.7	149.7
26 January 2010	82.9	93.5	82.5	301.5	149.5

\* Relative to Germany. [Return to text](#)

*Middle-right panel*

## Policy Rates

Percent

Period	Euro area	Japan	United Kingdom	Canada
2 January 2007	3.50	ND	5.00	4.25
4 January 2007	3.50	0.25	5.00	4.25
11 January 2007	3.50	0.25	5.25	4.25
21 February 2007	3.50	0.50	5.25	4.25
8 March 2007	3.75	0.50	5.25	4.25
10 May 2007	3.75	0.50	5.50	4.25
6 June 2007	4.00	0.50	5.50	4.25
5 July 2007	4.00	0.50	5.75	4.25
10 July 2007	4.00	0.50	5.75	4.50
4 December 2007	4.00	0.50	5.75	4.25
6 December 2007	4.00	0.50	5.50	4.25
22 January 2008	4.00	0.50	5.50	4.00
7 February 2008	4.00	0.50	5.25	4.00
4 March 2008	4.00	0.50	5.25	3.50
10 April 2008	4.00	0.50	5.00	3.50
22 April 2008	4.00	0.50	5.00	3.00
3 July 2008	4.25	0.50	5.00	3.00
8 October 2008	3.75	0.50	4.50	2.50
21 October 2008	3.75	0.50	4.50	2.25
31 October 2008	3.75	0.30	4.50	2.25
6 November 2008	3.25	0.30	3.00	2.25
4 December 2008	2.50	0.30	2.00	2.25
9 December 2008	2.50	0.30	2.00	1.50
19 December 2008	2.50	0.10	2.00	1.50
8 January 2009	2.50	0.10	1.50	1.50
15 January 2009	2.00	0.10	1.50	1.50
20 January 2009	2.00	0.10	1.50	1.00
5 February 2009	2.00	0.10	1.00	1.00
3 March 2009	2.00	0.10	1.00	0.50
5 March 2009	1.50	0.10	0.50	0.50
2 April 2009	1.25	0.10	0.50	0.50
21 April 2009	1.25	0.10	0.50	0.25
7 May 2009	1.00	0.10	0.50	0.25
<i>Forecast</i>				
16 November 2010	1.00	0.10	0.75	0.50
3 January 2011	1.25	0.10	1.25	0.75
1 April 2011	1.50	0.10	1.75	1.00
1 July 2011	1.75	0.10	2.25	1.25
3 October 2011	2.00	0.10	2.75	1.50
30 December 2011	2.00	0.10	2.75	1.50

### *Bottom-left panel*

#### *Employment\**

Index, 2007:Q1 = 100

Period	United States	Euro area	Japan	United Kingdom	Canada
2007:Q1	100.00	100.00	100.00	100.00	100.00
2007:Q2	99.83	100.45	100.31	100.34	100.37
2007:Q3	99.85	100.85	99.99	100.76	100.90
2007:Q4	100.02	101.12	100.24	101.14	101.59
2008:Q1	100.07	101.52	100.09	101.49	102.07
2008:Q2	99.92	101.58	99.90	101.63	102.29
2008:Q3	99.38	101.34	99.39	101.23	102.27
2008:Q4	98.48	100.97	99.48	100.91	102.39
2009:Q1	96.88	100.24	99.32	100.38	100.96
2009:Q2	96.11	99.76	97.86	99.53	100.59
2009:Q3	95.34	99.28	97.63	99.55	100.38
2009:Q4	94.52	ND	ND	ND	100.60

\* Total economy. [Return to text](#)

### *Bottom-right panel*

#### *Output per Employed Person*

Index, 2007:Q1 = 100

Period	United States	Euro area	Japan	United Kingdom	Canada
2007:Q1	100.00	100.00	100.00	100.00	100.00
2007:Q2	99.83	100.45	100.31	100.34	100.37
2007:Q3	99.85	100.85	99.99	100.76	100.90
2007:Q4	100.02	101.12	100.24	101.14	101.59
2008:Q1	100.07	101.52	100.09	101.49	102.07
2008:Q2	99.92	101.58	99.90	101.63	102.29
2008:Q3	99.38	101.34	99.39	101.23	102.27
2008:Q4	98.48	100.97	99.48	100.91	102.39
2009:Q1	96.88	100.24	99.32	100.38	100.96
2009:Q2	96.11	99.76	97.86	99.53	100.59
2009:Q3	95.34	99.28	97.63	99.55	100.38
2009:Q4	94.52	ND	ND	ND	100.60

## Exhibit 10

### Emerging Market Economies (EMEs)

#### *Top-left panel*

#### *Chinese Domestic Demand*

Retail sales volume

Period      Percent change\*

January 2006	14.36
February 2006	8.92
March 2006	13.31
April 2006	12.88
May 2006	13.07
June 2006	12.44
July 2006	12.93
August 2006	12.79
September 2006	12.55
October 2006	13.10
November 2006	12.41
December 2006	11.94
January 2007	10.75
February 2007	14.68
March 2007	12.52
April 2007	13.06
May 2007	13.18
June 2007	12.39
July 2007	11.49
August 2007	11.31
September 2007	11.54
October 2007	12.14
November 2007	12.08
December 2007	13.84
January 2008	14.14
February 2008	10.19
March 2008	12.71
April 2008	12.88
May 2008	13.12
June 2008	14.85
July 2008	15.45
August 2008	16.78
September 2008	16.99
October 2008	16.66
November 2008	17.63
December 2008	17.36
January 2009	17.68
February 2009	13.41
March 2009	16.45
April 2009	16.98
May 2009	17.45
June 2009	17.74
July 2009	18.11

August 2009	17.73
September 2009	17.28
October 2009	17.75
November 2009	15.81
December 2009	15.91

#### Fixed-asset investment

Period	Percent change*
2006:Q1	26.45
2006:Q2	29.99
2006:Q3	22.36
2006:Q4	20.24
2007:Q1	26.01
2007:Q2	28.73
2007:Q3	26.35
2007:Q4	20.52
2008:Q1	24.65
2008:Q2	27.06
2008:Q3	28.06
2008:Q4	22.61
2009:Q1	28.76
2009:Q2	35.73
2009:Q3	33.22
2009:Q4	24.52

\* From year earlier. [Return to table](#)

#### *Top-right panel* *Projected Total Domestic Demand Growth*

	2009:H2 (Percent, annual rate)	2010 (Percent)
Korea	10.0	5.4
Taiwan	7.0	5.7
Mexico	9.6	6.5
Brazil	7.4	5.8

[Data are approximate.]

#### *Middle-left panel* *Flows to Dedicated EME Funds*

Billions of USD

Period	Bonds	Equities
2007:Q1	2.53	ND
2007:Q2	2.00	2.36
2007:Q3	-1.18	14.01
2007:Q4	0.94	10.14

2008:Q1	0.49	-13.41
2008:Q2	0.17	7.49
2008:Q3	-4.25	-14.83
2008:Q4	-11.06	-9.63
2009:Q1	-3.10	-1.56
2009:Q2	0.88	16.59
2009:Q3	3.16	5.81
2009:Q4	7.09	9.07

*Middle-center panel*  
*Equity Price/Expected Earnings*

Ratio

Period	Total emerging Asia	China*
January 2006	12.37	13.12
February 2006	11.06	11.83
March 2006	11.07	11.66
April 2006	11.96	12.43
May 2006	11.65	13.54
June 2006	10.32	12.70
July 2006	10.95	13.00
August 2006	11.84	12.33
September 2006	12.02	12.55
October 2006	12.63	12.58
November 2006	13.15	14.76
December 2006	13.40	17.33
January 2007	14.09	22.20
February 2007	12.53	18.86
March 2007	12.30	20.14
April 2007	13.06	22.66
May 2007	13.23	24.07
June 2007	13.55	24.67
July 2007	14.92	23.61
August 2007	13.67	28.76
September 2007	14.49	30.35
October 2007	16.61	33.77
November 2007	15.38	28.40
December 2007	14.93	27.61
January 2008	14.90	30.75
February 2008	11.83	22.00
March 2008	11.12	18.20
April 2008	12.29	17.02
May 2008	13.01	18.29
June 2008	11.94	14.72

July 2008	10.57	14.49
August 2008	11.39	13.12
September 2008	10.03	11.13
October 2008	9.57	11.68
November 2008	8.87	12.22
December 2008	11.09	13.22
January 2009	11.20	12.87
February 2009	9.53	15.00
March 2009	10.05	13.88
April 2009	11.96	16.28
May 2009	12.82	16.84
June 2009	13.33	17.66
July 2009	13.14	19.47
August 2009	13.59	17.81
September 2009	13.96	18.12
October 2009	14.02	17.27
November 2009	13.93	19.01
December 2009	13.61	17.42

\* Based on Shanghai A index. [Return to table](#)

### *Middle-right panel* *Property Prices*

Index, Jan. 2006 = 100

Period	China	Hong Kong	Korea
January 2006	100.00	100.00	100.00
February 2006	100.70	100.33	100.45
March 2006	101.00	101.98	101.10
April 2006	101.41	102.86	101.99
May 2006	102.12	103.52	103.03
June 2006	102.83	101.65	103.52
July 2006	103.34	101.21	103.75
August 2006	103.76	102.42	104.00
September 2006	104.17	102.75	104.50
October 2006	104.59	102.53	105.91
November 2006	105.11	102.42	109.19
December 2006	105.74	103.30	111.23
January 2007	106.38	104.85	112.20
February 2007	107.02	106.39	112.61
March 2007	107.66	107.82	112.82
April 2007	108.41	108.70	112.96
May 2007	109.50	110.68	113.00
June 2007	110.59	111.89	113.15
July 2007	111.92	113.22	113.45

August 2007	113.49	114.54	113.66
September 2007	115.41	115.97	113.96
October 2007	117.26	119.49	114.25
November 2007	118.20	124.78	114.56
December 2007	118.44	129.85	114.72
January 2008	118.79	135.68	115.04
February 2008	119.03	138.22	115.39
March 2008	119.39	139.21	116.27
April 2008	119.62	137.33	117.29
May 2008	119.74	139.21	118.00
June 2008	119.74	139.43	118.72
July 2008	119.86	137.56	119.18
August 2008	119.74	135.35	119.42
September 2008	119.62	134.25	119.69
October 2008	119.27	125.88	119.63
November 2008	118.67	115.53	119.15
December 2008	118.08	115.42	118.29
January 2009	117.84	117.95	117.63
February 2009	117.60	118.72	117.34
March 2009	117.84	120.26	117.13
April 2009	118.31	124.89	117.20
May 2009	119.02	128.52	117.33
June 2009	119.97	133.37	117.56
July 2009	121.05	136.67	117.88
August 2009	122.14	140.31	118.25
September 2009	123.00	142.95	119.10
October 2009	123.86	144.49	119.55
November 2009	125.34	143.72	119.85
December 2009	127.22	ND	120.02

Index, Jan. 2006 = 100

Period	Singapore	Thailand
2006:Q1	100.00	100.00
2006:Q2	101.75	101.13
2006:Q3	104.50	100.50
2006:Q4	108.50	101.64
2007:Q1	113.75	100.38
2007:Q2	123.17	101.32
2007:Q3	133.33	103.08
2007:Q4	142.33	102.89
2008:Q1	147.67	99.31
2008:Q2	147.92	100.88
2008:Q3	144.42	101.51
2008:Q4	135.67	101.51

2009:Q1	116.58	103.90
2009:Q2	111.08	100.82
2009:Q3	128.58	94.52
2009:Q4	138.08	ND

*Bottom-left panel*  
*Chinese Policy and Lending*

Period	Reserve requirements* (Percent)	Change in outstanding loans (Billions of RMB)
January 2007	9.50	568.40
February 2007	10.00	413.76
March 2007	10.00	441.68
April 2007	10.50	421.96
May 2007	11.00	247.27
June 2007	11.50	451.46
July 2007	11.50	231.41
August 2007	12.00	302.87
September 2007	12.50	283.49
October 2007	13.00	136.11
November 2007	13.50	87.40
December 2007	14.50	48.55
January 2008	15.00	800.47
February 2008	15.00	247.04
March 2008	15.50	283.42
April 2008	16.00	469.00
May 2008	16.50	318.50
June 2008	17.50	332.42
July 2008	17.50	381.76
August 2008	17.50	271.54
September 2008	17.50	374.47
October 2008	17.00	181.86
November 2008	17.00	-254.61
December 2008	15.50	764.51
January 2009	15.50	1652.72
February 2009	15.50	1071.59
March 2009	15.50	1891.71
April 2009	15.50	591.80
May 2009	15.50	666.89
June 2009	15.50	1530.44
July 2009	15.50	369.15
August 2009	15.50	410.36
September 2009	15.50	516.67
October 2009	15.50	252.98
November 2009	15.50	294.77

December 2009	15.50	379.83
January 2010	16.00	ND

\* For large banks. January 2010 data is approximate. [Return to table](#)

### *Bottom-right panel* *Fiscal Stimulus*

Percent of GDP

Period	China	Korea	Mexico	Brazil
2009	3.6	1.0	1.0	3.0
2010	0.2	-1.0	-1.3	-1.5
2011	-1.9	0.0	0.1	-0.8

[Data are approximate.]

## Exhibit 11 (Last) External Sector

### *Top-left panel* *Selected Exchange Rates*

Index, Dec. 3 = 100

Period	Euro	Japanese yen	Korean won	Canadian dollar
3 December 2009	100.00	100.00	100.00	100.00
4 December 2009	101.32	101.89	100.09	99.77
7 December 2009	101.76	101.41	100.21	99.71
8 December 2009	102.31	100.24	100.11	100.57
9 December 2009	102.42	99.58	100.87	100.10
10 December 2009	102.48	100.00	101.30	99.80
11 December 2009	103.29	101.17	101.09	100.42
14 December 2009	102.98	100.51	100.52	100.48
15 December 2009	103.91	101.94	100.57	100.79
16 December 2009	103.46	101.50	100.90	100.38
17 December 2009	105.34	102.44	101.99	101.65
18 December 2009	105.60	102.57	101.84	101.33
21 December 2009	105.32	103.12	103.08	100.50
22 December 2009	105.88	103.93	102.52	100.15
23 December 2009	105.16	103.76	102.78	99.40
24 December 2009	104.97	103.96	102.01	99.49
25 December 2009	ND	ND	ND	ND
28 December 2009	104.79	103.82	101.57	98.97
29 December 2009	105.05	104.25	101.39	98.68
30 December 2009	105.34	105.06	101.19	99.85
31 December 2009	105.23	105.53	101.19	99.26

1 January 2010	ND	ND	ND	ND
4 January 2010	104.59	104.93	99.91	98.46
5 January 2010	104.71	103.72	98.97	98.41
6 January 2010	104.70	104.91	98.26	98.05
7 January 2010	105.36	105.79	98.70	98.22
8 January 2010	105.04	105.10	98.07	98.16
11 January 2010	103.75	104.20	97.39	97.89
12 January 2010	103.84	103.12	97.41	98.43
13 January 2010	104.06	103.61	97.57	97.91
14 January 2010	104.16	103.21	97.61	97.35
15 January 2010	104.90	102.94	97.65	97.61
18 January 2010	ND	ND	ND	ND
19 January 2010	105.69	103.32	98.20	97.97
20 January 2010	107.00	103.44	98.57	99.41
21 January 2010	106.91	102.32	99.22	99.47
22 January 2010	106.55	102.12	100.26	100.21
25 January 2010	106.61	102.18	99.65	100.41
26 January 2010	107.24	101.62	101.14	101.23

*Top-right panel*  
*Broad Real Dollar*

Index, 2007:Q2 = 100

Period	Index	June GB
2007:Q2	100.00	ND
2007:Q3	97.89	ND
2007:Q4	94.70	ND
2008:Q1	92.69	ND
2008:Q2	91.05	ND
2008:Q3	93.38	ND
2008:Q4	101.18	ND
2009:Q1	103.34	ND
2009:Q2	99.56	ND
2009:Q3	96.71	97.98
<i>Forecast</i>		
2009:Q4	94.25	97.76
2010:Q1	94.21	97.34
2010:Q2	93.73	96.78
2010:Q3	93.15	96.15
2010:Q4	92.48	95.49
2011:Q1	91.79	ND
2011:Q2	91.08	ND
2011:Q3	90.37	ND
2011:Q4	89.66	ND

*Middle-left panel*  
*Capital Flows*

Billions of U.S. dollars

Period	Foreign private net purchases of U.S. securities	Foreign official flows	U.S. net purchases of foreign securities
January 2006	54.17	29.82	22.52
February 2006	54.84	33.33	24.33
March 2006	51.98	37.62	23.81
April 2006	41.30	39.33	26.34
May 2006	40.22	41.11	27.78
June 2006	43.22	43.88	25.85
July 2006	41.06	45.58	25.96
August 2006	46.49	44.32	24.69
September 2006	48.19	43.40	25.10
October 2006	59.64	39.66	24.71
November 2006	66.56	36.18	27.81
December 2006	61.28	38.82	34.55
January 2007	73.35	36.19	34.79
February 2007	68.51	40.29	38.36
March 2007	70.03	45.27	43.06
April 2007	68.67	48.23	43.72
May 2007	75.38	46.17	43.03
June 2007	87.10	42.02	38.15
July 2007	72.30	43.19	36.73
August 2007	63.00	29.90	38.18
September 2007	50.72	22.53	36.92
October 2007	56.05	24.25	34.32
November 2007	36.71	32.94	24.25
December 2007	25.22	37.18	22.99
January 2008	20.96	46.55	23.55
February 2008	26.28	55.39	19.54
March 2008	24.38	62.46	11.78
April 2008	11.11	63.81	8.52
May 2008	11.30	62.39	15.63
June 2008	7.05	63.39	14.61
July 2008	3.55	51.66	5.65
August 2008	-2.67	47.92	-0.21
September 2008	2.26	49.97	-5.93
October 2008	8.43	38.06	-8.77
November 2008	0.41	27.22	-18.68
December 2008	4.63	16.61	-22.35
January 2009	-1.70	13.90	-12.65
February 2009	5.77	17.72	-9.52
March 2009	9.48	8.77	-4.12

April 2009	-8.11	16.70	4.07
May 2009	-4.92	23.49	13.74
June 2009	-0.38	32.53	20.80
July 2009	11.42	35.70	20.89
August 2009	4.89	33.18	21.25
September 2009	1.47	32.81	23.23
October 2009	3.90	34.33	23.03
November 2009	11.13	34.95	18.60

Note: Six-month moving average.

*Middle-right panel*  
*Trade in Real Goods and Services*

	2009		2010 <sup>P</sup>	2011 <sup>P</sup>
	Q3	Q4 <sup>e</sup>		
<b>Growth Rates (percent, a.r.)</b>				
1. Exports	17.8	17.3	9.5	9.3
2. Imports	21.3	11.8	8.8	8.3
<b>Contribution to Real GDP Growth (percentage points, a.r.)</b>				
3. Net Exports	-0.8	0.2	-0.2	-0.1

*Bottom-left panel*  
*U.S. Exports and Imports*

Billions of chained (2005) dollars

Period	Exports	June GB Exports	Imports	June GB Imports
2007:Q1	1485.88	ND	2190.84	ND
2007:Q2	1504.76	ND	2188.13	ND
2007:Q3	1569.90	ND	2208.34	ND
2007:Q4	1623.96	ND	2188.01	ND
2008:Q1	1623.42	ND	2174.29	ND
2008:Q2	1670.43	ND	2146.48	ND
2008:Q3	1655.18	ND	2134.43	ND
2008:Q4	1568.01	ND	2038.89	ND
2009:Q1	1434.55	ND	1821.04	ND
2009:Q2	1419.46	1417.96	1749.83	1750.40
2009:Q3	1478.83	1430.44	1836.25	1763.94
<i>Forecast</i>				
2009:Q4	1538.99	1439.23	1888.36	1807.81
2010:Q1	1575.44	1450.91	1938.18	1840.22
2010:Q2	1609.18	1464.27	1976.70	1843.00
2010:Q3	1645.80	1480.17	2019.58	1853.17
2010:Q4	1685.32	1497.34	2053.89	1905.50
2011:Q1	1724.67	ND	2099.47	ND

2011:Q2	1763.45	ND	2141.11	ND
2011:Q3	1803.06	ND	2188.30	ND
2011:Q4	1842.69	ND	2223.63	ND

*Bottom-right panel*  
*Current Account*

Period	Percent of GDP	Billions of dollars
2005:Q1	-5.64	-697.88
2005:Q2	-5.72	-716.24
2005:Q3	-5.82	-741.35
2005:Q4	-6.50	-839.26
2006:Q1	-6.03	-794.60
2006:Q2	-6.06	-808.31
2006:Q3	-6.39	-859.16
2006:Q4	-5.53	-752.12
2007:Q1	-5.77	-796.40
2007:Q2	-5.44	-762.12
2007:Q3	-4.84	-686.46
2007:Q4	-4.61	-661.32
2008:Q1	-4.99	-717.19
2008:Q2	-5.18	-750.88
2008:Q3	-5.06	-736.71
2008:Q4	-4.32	-619.50
2009:Q1	-2.95	-417.80
2009:Q2	-2.77	-391.93
2009:Q3	-3.03	-432.14
<i>Forecast</i>		
2009:Q4	-3.09	-446.57
2010:Q1	-3.29	-481.69
2010:Q2	-3.19	-472.23
2010:Q3	-3.23	-484.21
2010:Q4	-3.16	-478.78
2011:Q1	-3.27	-503.41
2011:Q2	-3.16	-492.61
2011:Q3	-3.21	-507.70
2011:Q4	-3.16	-507.35

## Appendix 4: Materials used by Mr. Madigan

Material for Briefing on  
**FOMC Participants' Economic Projections**

Brian Madigan  
January 26-27 2010

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

### Exhibit 1. Central tendencies and ranges of economic projections, 2010-12 and over the longer run

Actual values for years 2005 through 2009.

#### Change in real GDP Percent

	2005	2006	2007	2008	2009	2010	2011	2012	Longer Run
<b>Actual</b>	2.7	2.4	2.5	-1.9	<i>0.0</i>	-	-	-	-
<b>Upper End of Range</b>	-	-	-	-	-	4.0	4.7	5.0	3.0
<b>Upper End of Central Tendency</b>	-	-	-	-	-	3.5	4.5	4.5	2.8
<b>Lower End of Central Tendency</b>	-	-	-	-	-	2.8	3.4	3.5	2.5
<b>Lower End of Range</b>	-	-	-	-	-	2.3	2.7	3.0	2.4

#### Unemployment rate Percent

	2005	2006	2007	2008	2009	2010	2011	2012	Longer Run
<b>Actual</b>	5.0	4.5	4.8	6.9	10.0	-	-	-	-
<b>Upper End of Range</b>	-	-	-	-	-	10.0	8.8	7.6	6.3
<b>Upper End of Central Tendency</b>	-	-	-	-	-	9.7	8.5	7.5	5.2
<b>Lower End of Central Tendency</b>	-	-	-	-	-	9.5	8.2	6.6	5.0
<b>Lower End of Range</b>	-	-	-	-	-	8.6	7.2	6.1	4.9

#### PCE inflation Percent

	2005	2006	2007	2008	2009	2010	2011	2012	Longer Run
<b>Actual</b>	3.3	1.9	3.6	1.7	1.3	-	-	-	-
<b>Upper End of Range</b>	-	-	-	-	-	2.0	2.4	2.0	2.0
<b>Upper End of Central Tendency</b>	-	-	-	-	-	1.7	2.0	2.0	2.0
<b>Lower End of Central Tendency</b>	-	-	-	-	-	1.4	1.1	1.3	1.7
<b>Lower End of Range</b>	-	-	-	-	-	1.2	1.0	0.8	1.5

#### Core PCE inflation Percent

	2005	2006	2007	2008	2009	2010	2011	2012
<b>Actual</b>	2.3	2.3	2.5	2.0	1.5	-	-	-
<b>Upper End of Range</b>	-	-	-	-	-	2.0	2.4	2.0
<b>Upper End of Central Tendency</b>	-	-	-	-	-	1.7	1.9	1.9
<b>Lower End of Central Tendency</b>	-	-	-	-	-	1.1	1.0	1.2
<b>Lower End of Range</b>	-	-	-	-	-	0.9	0.9	0.8

NOTE: Definitions of variables are in the notes to table 1. The data for the actual values of the variables are annual. [In the first table, emphasis (*italic*) indicates a Greenbook forecast value for 2009.]

## Exhibit 2: Economic Projections for 2010-2012 and Longer Run

## Real GDP Growth

	2010	2011	2012	Longer run
<b>Central Tendency</b>	2.8 to 3.5	3.4 to 4.5	3.5 to 4.5	2.5 to 2.8
<i>November projections</i>	2.5 to 3.5	3.4 to 4.5	3.5 to 4.8	2.5 to 2.8
<b>Range</b>	2.3 to 4.0	2.7 to 4.7	3.0 to 5.0	2.4 to 3.0
<i>November projections</i>	2.0 to 4.0	2.5 to 4.6	2.8 to 5.0	2.4 to 3.0
<b>Memo: Greenbook</b>	3.6	4.7	4.5	2.5
<i>November Greenbook</i>	3.4	4.4	5.0	2.5

## Unemployment Rate

	2010	2011	2012	Longer run
<b>Central Tendency</b>	9.5 to 9.7	8.2 to 8.5	6.6 to 7.5	5.0 to 5.2
<i>November projections</i>	9.3 to 9.7	8.2 to 8.6	6.8 to 7.5	5.0 to 5.2
<b>Range</b>	8.6 to 10.0	7.2 to 8.8	6.1 to 7.6	4.9 to 6.3
<i>November projections</i>	8.6 to 10.2	7.2 to 8.7	6.1 to 7.6	4.8 to 6.3
<b>Memo: Greenbook</b>	9.5	8.2	6.1	5.0
<i>November Greenbook</i>	9.5	8.2	6.1	4.8

## PCE Inflation

	2010	2011	2012	Longer run
<b>Central Tendency</b>	1.4 to 1.7	1.1 to 2.0	1.3 to 2.0	1.7 to 2.0
<i>November projections</i>	1.3 to 1.6	1.0 to 1.9	1.2 to 1.9	1.7 to 2.0
<b>Range</b>	1.2 to 2.0	1.0 to 2.4	0.8 to 2.0	1.5 to 2.0
<i>November projections</i>	1.1 to 2.0	0.6 to 2.4	0.2 to 2.3	1.5 to 2.0
<b>Memo: Greenbook</b>	1.4	1.1	1.3	2.0
<i>November Greenbook</i>	1.4	1.0	1.2	2.0

## Core PCE Inflation

	2010	2011	2012
<b>Central Tendency</b>	1.1 to 1.7	1.0 to 1.9	1.2 to 1.9
<i>November projections</i>	1.0 to 1.5	1.0 to 1.6	1.0 to 1.7
<b>Range</b>	0.9 to 2.0	0.9 to 2.4	0.8 to 2.0
<i>November projections</i>	0.9 to 2.0	0.5 to 2.4	0.2 to 2.3
<b>Memo: Greenbook</b>	1.2	1.1	1.2
<i>November Greenbook</i>	1.1	1.0	1.1

## Exhibit 3. Risks and Uncertainty in Economic Projections

### *Top-left panel*

### *Uncertainty about GDP Growth*

Number of participants

	Lower	Similar	Higher
January projections	0	3	14
November projections	0	1	16

*Top-right panel*  
*Risks to GDP Growth*

Number of participants

	Downside	Balanced	Upside
January projections	1	16	0
November projections	1	16	0

*Bottom-left panel*  
*Uncertainty about PCE Inflation*

Number of participants

	Lower	Similar	Higher
January projections	1	3	13
November projections	1	2	14

*Bottom-right panel*  
*Risks to PCE Inflation*

Number of participants

	Downside	Balanced	Upside
January projections	1	14	2
November projections	2	13	2

## Appendix 5: Materials used by Mr. Stockton

### The Market for New Single-Family Homes

*Top panel*

	2009	2009	2009	2009	2009	2009	2009
	Q1	Q2	Q3	Q4	Oct.	Nov.	Dec.
<b>Sales<sup>1</sup></b>							
Total	374	372	406	373	408	370	342
<i>Previous</i>			407		400	355	
Percent Change	-22.9	10.1	9.1	-8.1	4.3	-9.3	-7.6
<b>By region</b>							
Northeast	31	27	38	34	33	28	40
Midwest	54	49	60	57	56	73	43
South	202	202	208	198	224	192	178
West	87	93	101	84	95	77	81
<b>Inventories</b>							
New homes for sale <sup>2</sup>	231	280	252	231	242	235	231

Months' supply <sup>3</sup>	9.1	9.4	7.7	7.6	7.1	7.6	8.1
<b>Prices</b>							
Mean (thousands of dollars) <sup>4</sup>	270.4	270.0	274.9	269.1	263.1	267.3	299.1
Year-to-year percent change <sup>5</sup>	-7.6	-10.3	-3.8	-2.3	-4.2	-7.1	10.5
One-period percent change (annual rate for quarters, monthly rate for months)	-7.6	15.2	7.4	-8.1	-10.4	1.6	11.9
<b>Constant-quality price index<sup>6</sup></b>							
Year-to-year percent change <sup>5</sup>	-4.5	-6.0	-5.9	.3	n.a.	n.a.	n.a.
One-period percent change (annual rate for quarters)	-4.5	2.3	-2.6	8.3	n.a.	n.a.	n.a.

1. Thousands of units, s.a.a.r., except where noted. Percent change is from previous comparable period, not at an annual rate. [Return to table](#)

2. Thousands of units, seasonally adjusted, end of period stock. [Return to table](#)

3. At current sales rate; expressed as the ratio of s.a. inventories to s.a. sales. Quarterly and annual values are averages of monthly values. [Return to table](#)

4. Quarterly and annual values of mean prices are equal to a weighted average of monthly data; the weights are based on the response rate to the survey in each month. Seasonally adjusted by FRB staff. [Return to table](#)

5. Year-to-year percent changes are from the year-earlier comparable period. [Return to table](#)

6. Based on characteristics of new homes sold in 2005. Seasonally adjusted by FRB staff. [Return to table](#)

s.a.a.r. Seasonally adjusted annual rate.

s.a. Seasonally adjusted.

n.a. Not available.

Source: Census Bureau.

### *Bottom-left panel*

#### *New Home Sales*

Data plotted as a curve. The period covered is from January 1997 through December 2009, and the data are in millions of units. As shown in the figure, new home sales were relatively flat from 1999 through 2002, at which point they increased until their peak in mid-2005. New home sales fell drastically from 2006 through about 2008, and have remained more or less flat at a low level for 2009. The most recent month of data (December 2009) shows a 7.6% decrease in new home sales from the previous month (November 2009).

Source: Census Bureau.

### *Bottom-right panel*

#### *Inventories of New Homes and Months' Supply*

Data plotted as curves. The period covered is from January 2001 through December 2009. The chart shows two curves, plotted on different scales. The left scale shows inventories of new homes in thousands of units. Inventories rose from the beginning of 2001 to mid-2006, and have fallen drastically since then. The most recent month of data (December 2009) is the lowest level of inventories during the time period shown. The right scale shows months' supply of new homes, and the units are number of months. Months' supply was relatively flat from 2001 through mid-2005 at a level of about 4 months. From there it increased to its peak of about 11 months at the end of 2008. The months' supply has fallen since the end of 2008, but remains elevated compared to its level in the early 2000s.

Note: Months' supply is calculated using the 3-month moving average of sales.

## Appendix 6: Materials used by Mr. English

### Material for **FOMC Briefing on Monetary Policy Alternatives**

Bill English  
January 27, 2010

#### **Class I FOMC - Restricted-Controlled FR**

### December FOMC Statement

Information received since the Federal Open Market Committee met in November suggests that economic activity has continued to pick up and that the deterioration in the labor market is abating. The housing sector has shown some signs of improvement over recent months. Household spending appears to be expanding at a moderate rate, though it remains constrained by a weak labor market, modest income growth, lower housing wealth, and tight credit. Businesses are still cutting back on fixed investment, though at a slower pace, and remain reluctant to add to payrolls; they continue to make progress in bringing inventory stocks into better alignment with sales. Financial market conditions have become more supportive of economic growth. Although economic activity is likely to remain weak for a time, the Committee anticipates that policy actions to stabilize financial markets and institutions, fiscal and monetary stimulus, and market forces will contribute to a strengthening of economic growth and a gradual return to higher levels of resource utilization in a context of price stability.

With substantial resource slack likely to continue to dampen cost pressures and with longer-term inflation expectations stable, the Committee expects that inflation will remain subdued for some time.

The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and continues to anticipate that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant exceptionally low levels of the federal funds rate for an extended period. To provide support to mortgage lending and housing markets and to improve overall conditions in private credit markets, the Federal Reserve is in the process of purchasing \$1.25 trillion of agency mortgage-backed securities and about \$175 billion of agency debt. In order to promote a smooth transition in markets, the Committee is gradually slowing the pace of these purchases, and it anticipates that these transactions will be executed by the end of the first quarter of 2010. The Committee will continue to evaluate the timing and overall amounts of its purchases of securities in light of the evolving economic outlook and conditions in financial markets.

In light of ongoing improvements in the functioning of financial markets, the Committee and the Board of Governors anticipate that most of the Federal Reserve's special liquidity facilities will expire on February 1, 2010, consistent with the Federal Reserve's announcement of June 25, 2009. These facilities include the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility, the Commercial Paper Funding Facility, the Primary Dealer Credit Facility, and the Term Securities Lending Facility. The Federal Reserve will also be working with its central bank counterparties to close its temporary liquidity swap arrangements by February 1. The Federal Reserve expects that amounts provided under the Term Auction Facility will continue to be scaled back in early 2010. The anticipated expiration dates for the Term Asset-Backed Securities Loan Facility remain set at June 30, 2010, for loans backed by new-issue commercial mortgage-backed securities and March 31, 2010, for loans backed by all other types of collateral. The Federal Reserve is prepared to modify these plans if necessary to support financial stability and economic growth.

[Note: In the January FOMC Statement Alternatives, strong emphasis (bold) indicates bold red underlined text in the original document.]

### January FOMC Statement--Alternative A

Information received since the Federal Open Market Committee met in **December** suggests that economic activity has continued to pick up and that the deterioration in the labor market is abating. Household spending **is**

expanding at a moderate rate **but** remains constrained by a weak labor market, modest income growth, lower housing wealth, and tight credit. **Business spending on equipment and software appears to be picking up, but investment in structures is still contracting and firms** remain reluctant to add to payrolls. **Recent data indicate that housing activity remains sluggish and the level of foreclosures continues to be elevated. In light of the weakness in labor markets and prospects for a subpar economic recovery, the Committee judges that further monetary stimulus is warranted.**

**Energy prices have risen in recent months, but core inflation has remained low.** With substantial resource slack continuing to **restrain** cost pressures and longer-term inflation expectations stable, inflation **is likely to be** subdued for some time.

To provide **further** support to mortgage lending and housing markets and to **promote a more robust economic recovery in a context of price stability, the Committee decided to expand its purchases** of agency mortgage-backed securities **to a total of \$1.5 trillion, up from the previously announced amount of \$1.25 trillion**; the Committee anticipates that these transactions will be executed by the end of the **third** quarter. The Federal Reserve is **also** in the process of purchasing about \$175 billion of agency debt, **and** the Committee anticipates that **those** transactions will be executed by the end of the first quarter. The Committee will continue to evaluate the timing and overall amounts of its purchases of securities in light of the evolving economic outlook and conditions in financial markets. The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and continues to anticipate that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant exceptionally low levels of the federal funds rate for an extended period.

In light of improved functioning of financial markets, the Federal Reserve **will be closing** the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility, the Commercial Paper Funding Facility, the Primary Dealer Credit Facility, and the Term Securities Lending Facility on February 1, **as previously announced. In addition, the** temporary liquidity swap arrangements **between** the Federal Reserve **and other** central banks **will expire on** February 1. **The** amounts provided under the Term Auction Facility will continue to be scaled back, **with \$50 billion in 28-day credit to be offered at the next auction on February 8; the Federal Reserve expects to offer \$25 billion in 28-day credit on March 8 and will consider whether to conduct further auctions beyond that date.** The anticipated expiration dates for the Term Asset-Backed Securities Loan Facility remain set at June 30 for loans backed by new-issue commercial mortgage-backed securities and March 31 for loans backed by all other types of collateral. The Federal Reserve is prepared to modify these plans if necessary to support financial stability and economic growth.

## January FOMC Statement--Alternative B

Information received since the Federal Open Market Committee met in **December** suggests that economic activity has continued to **strengthen** and that the deterioration in the labor market is abating. Household spending **is** expanding at a moderate rate **but** remains constrained by a weak labor market, modest income growth, lower housing wealth, and tight credit. **Business spending on equipment and software appears to be picking up, but investment in structures is still contracting and employers** remain reluctant to add to payrolls. **Firms have brought** inventory stocks into better alignment with sales. **While bank lending continues to contract,** financial market conditions **remain** supportive of economic growth. Although **the pace of economic recovery** is likely to **be moderate** for a time, the Committee anticipates a gradual return to higher levels of resource utilization in a context of price stability.

**Energy prices have risen in recent months. However,** with substantial resource slack continuing to **restrain** cost pressures and with longer-term inflation expectations stable, inflation **is likely to be** subdued for some time.

The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and continues to anticipate that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant exceptionally low levels of the federal funds rate for an extended period. To provide support to mortgage lending and housing markets and to improve overall conditions in private credit markets, the Federal Reserve is in the process of purchasing \$1.25 trillion of agency mortgage-backed securities and about \$175 billion of agency debt. In order to promote a smooth transition in markets, the Committee is gradually slowing the pace of these purchases, and it anticipates that these transactions will be executed by the end of the first quarter. The Committee will continue to evaluate its purchases [**or holdings**] of securities in light of the evolving economic outlook and conditions in financial markets.

In light of improved functioning of financial markets, the Federal Reserve **will be closing** the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility, the Commercial Paper Funding Facility, the Primary Dealer Credit Facility, and the Term Securities Lending Facility on February 1, **as previously announced. In addition, the** temporary liquidity swap arrangements **between** the Federal Reserve **and other**

central banks **will expire on** February 1. **The** amounts provided under the Term Auction Facility will continue to be scaled back, **with \$50 billion in 28-day credit to be offered at the next auction on February 8; the Federal Reserve expects to offer \$25 billion in 28-day credit on March 8 and will consider whether to conduct further auctions beyond that date.** The anticipated expiration dates for the Term Asset-Backed Securities Loan Facility remain set at June 30 for loans backed by new-issue commercial mortgage-backed securities and March 31 for loans backed by all other types of collateral. The Federal Reserve is prepared to modify these plans if necessary to support financial stability and economic growth.

## January FOMC Statement--Alternative C

Information received since the Federal Open Market Committee met in **December** suggests that economic activity **is increasing at a solid rate** and that the labor market **is stabilizing**. Financial market conditions have **continued to** become more supportive of economic growth. Household spending **is** expanding at a moderate rate. **Business spending on equipment and software appears to be picking up, and firms have brought** inventory stocks into better alignment with sales. **With a sustainable economic recovery now under way,** the Committee anticipates a gradual return to higher levels of resource utilization.

**Inflation has been somewhat elevated recently, reflecting a pickup in energy prices, but** longer-term inflation expectations **have remained** stable. The Committee expects that, **with appropriate monetary policy adjustments,** inflation will **be at levels consistent with price stability.**

The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and continues to anticipate that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant low levels of the federal funds rate for **some time**. The Federal Reserve is in the process of purchasing \$1.25 trillion of agency mortgage-backed securities and about \$175 billion of agency debt. In order to promote a smooth transition in markets, the Committee is gradually slowing the pace of these purchases and anticipates that these transactions will be executed by the end of the first quarter. The Committee will continue to evaluate the **size and composition** of its securities **holdings** in light of the evolving economic outlook and conditions in financial markets.

In light of improved functioning of financial markets, the Federal Reserve **will be closing** the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility, the Commercial Paper Funding Facility, the Primary Dealer Credit Facility, and the Term Securities Lending Facility on February 1, **as previously announced. In addition, the** temporary liquidity swap arrangements **between** the Federal Reserve **and other** central banks **will expire on** February 1. **The** amounts provided under the Term Auction Facility will continue to be scaled back, **with \$50 billion in 28-day credit to be offered at the next auction on February 8; the Federal Reserve expects to offer \$25 billion in 28-day credit on March 8 and will consider whether to conduct further auctions beyond that date.** The anticipated expiration dates for the Term Asset-Backed Securities Loan Facility remain set at June 30 for loans backed by new-issue commercial mortgage-backed securities and March 31 for loans backed by all other types of collateral. The Federal Reserve is prepared to modify these plans if necessary to support financial stability and economic growth.

Table 1: Overview of Alternative Language for the January 26-27, 2010 FOMC Announcement

December FOMC		January Alternatives		
		A	B	C
<b><i>Economic Activity</i></b>				
<b>Recent Developments</b>	"has continued to pick up"	"has continued to pick up"	"has continued to strengthen"	"is increasing at a solid rate"
<b>Labor Markets</b>	"the deterioration... is abating"	"the deterioration... is abating"		"the labor market is stabilizing"
<b>Financial Markets</b>	"conditions have become more supportive"	---	"conditions remain supportive"	"conditions have continued to become more supportive"
<b>Other Factors</b>	fiscal and monetary stimulus, market forces	"housing activity remains sluggish"	"bank lending continues to contract"	---
<b>Outlook</b>	"likely to remain weak"	further monetary stimulus warranted by prospects	pace of recovery	sustainable recovery

	for a time"	for subpar recovery	"likely to be moderate"	"now under way"
<b>Inflation</b>				
<b>Recent Developments</b>	---	energy prices have risen but core inflation has remained low	energy prices have risen	inflation somewhat elevated by pickup in energy prices
<b>Key Factors</b>	substantial resource slack, stable expectations	substantial resource slack, stable expectations		appropriate monetary policy adjustments, stable expectations
<b>Outlook</b>	"will remain subdued for some time"	"likely to be subdued for some time"		"will be at levels consistent with price stability"
<b>Forward Guidance on Funds Rate Path</b>				
	"exceptionally low... for an extended period"	"exceptionally low... for an extended period"		"low... for some time"
<b>Agency MBS Purchases</b>				
<b>Amount</b>	\$1.25 trillion	\$1.5 trillion	\$1.25 trillion	
<b>Timing</b>	by the end of the first quarter	by the end of the third quarter	by the end of the first quarter	
<b>Evaluation of Balance Sheet Adjustments</b>				
	"the timing and overall amounts of its purchases of securities"	"the timing and overall amounts of its purchases of securities"	"its purchases [or holdings] of securities"	"the size and composition of its securities holdings"

## Directives

### *December FOMC Meeting*

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. The Committee directs the Desk to purchase agency debt and agency MBS during the intermeeting period with the aim of providing support to private credit markets and economic activity. The timing and pace of these purchases should depend on conditions in the markets for such securities and on a broader assessment of private credit market conditions. The Desk is expected to execute purchases of about \$175 billion in housing-related agency debt and about \$1.25 trillion of agency MBS by the end of the first quarter of 2010. The Desk is expected to gradually slow the pace of these purchases as they near completion. The Committee anticipates that outright purchases of securities will cause the size of the Federal Reserve's balance sheet to expand significantly in coming months. 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.

### *January FOMC Meeting -- 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 ¼ percent. The Committee directs the Desk to purchase agency debt and agency MBS during the intermeeting period with the aim of providing support to private credit markets and economic activity. The timing and pace of these purchases should depend on conditions in the markets for such securities and on a broader assessment of private credit market conditions. The Desk is expected to execute purchases of about \$175 billion in housing-related agency debt by the end of the first quarter and to execute purchases of about \$1.5 trillion of agency MBS by the end of the third quarter. The Desk is expected to gradually slow the pace of these purchases as they near completion. The Committee anticipates that outright purchases of securities will cause the size of the Federal Reserve's balance sheet to expand significantly

in coming months. The Committee directs the Desk to engage in dollar roll transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions to be conducted through the end of the third quarter, as directed above. 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.

### *January FOMC Meeting -- Alternatives B and 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 ¼ percent. The Committee directs the Desk to purchase agency debt and agency MBS during the intermeeting period with the aim of providing support to private credit markets and economic activity. The timing and pace of these purchases should depend on conditions in the markets for such securities and on a broader assessment of private credit market conditions. The Desk is expected to execute purchases of about \$175 billion in housing-related agency debt and about \$1.25 trillion of agency MBS by the end of the first quarter. The Desk is expected to gradually slow the pace of these purchases as they near completion. The Committee anticipates that outright purchases of securities will cause the size of the Federal Reserve's balance sheet to expand significantly in coming months. The Committee directs the Desk to engage in dollar roll transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions to be conducted through the end of the first quarter, as directed above. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

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