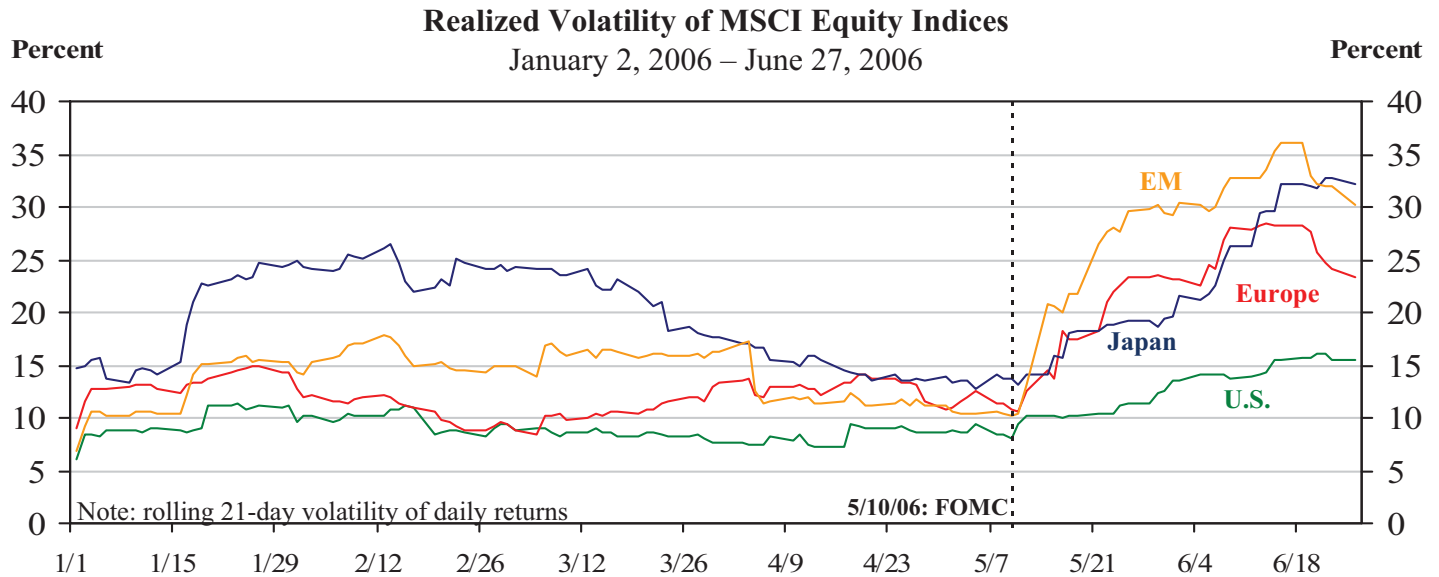
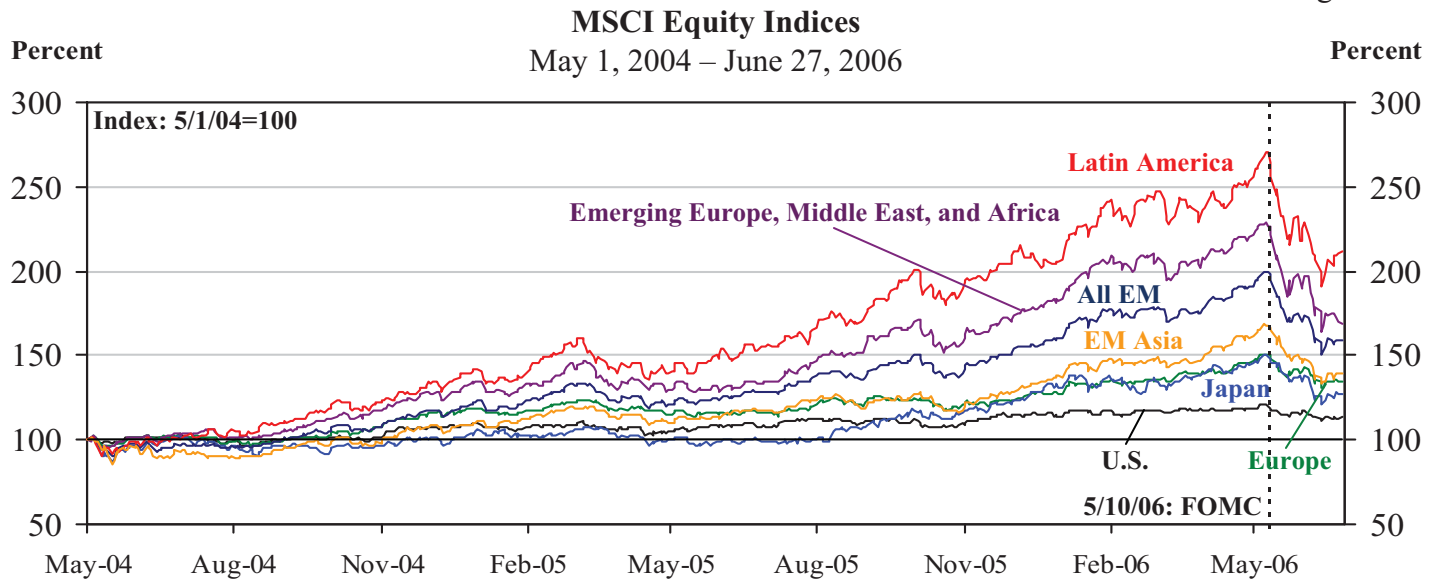


**Appendix 1: Materials used by Mr. Kos**

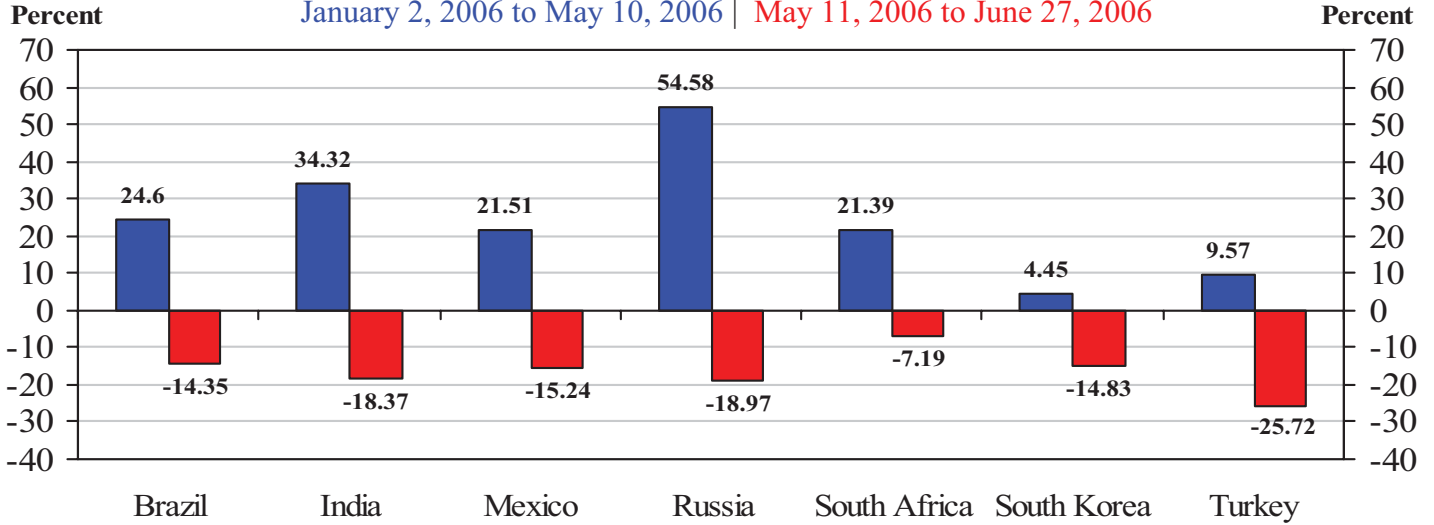


**S&P 500: Periods with Greater than 10% Price Declines**  
(Since January 2, 1942)

Start Date	End Date	Percentage Decline	Start Date	End Date	Percentage Decline
9/21/1943	11/29/1943	-10.21	3/13/1974	10/3/1974	-37.56
8/13/1946	10/9/1946	-22.55	7/15/1975	9/16/1975	-14.14
6/15/1948	6/13/1949	-20.57	7/18/1977	2/28/1978	-13.78
6/9/1950	7/17/1950	-13.40	9/12/1978	11/15/1978	-13.35
3/17/1953	9/15/1953	-13.03	2/13/1980	3/27/1980	-17.07
8/2/1956	2/25/1957	-12.79	11/20/1980	9/25/1981	-19.68
7/12/1957	10/21/1957	-20.23	11/30/1981	3/17/1982	-13.67
1/5/1960	3/8/1960	-11.46	5/7/1982	8/12/1982	-14.27
12/12/1961	5/28/1962	-23.60	10/10/1983	7/24/1984	-14.38
2/9/1966	10/7/1966	-22.18	8/25/1987	10/19/1987	-33.24
11/29/1968	7/29/1969	-17.43	7/16/1990	10/17/1990	-19.02
10/24/1969	1/30/1970	-13.35	10/17/1997	10/27/1997	-10.80
3/3/1970	5/26/1970	-23.21	7/17/1998	9/10/1998	-17.41
4/28/1971	8/9/1971	-10.73	9/1/2000	3/11/2003	-47.35
1/11/1973	8/22/1973	-16.39	<b>5/9/2006</b>	<b>6/27/2006</b>	<b>-6.15</b>

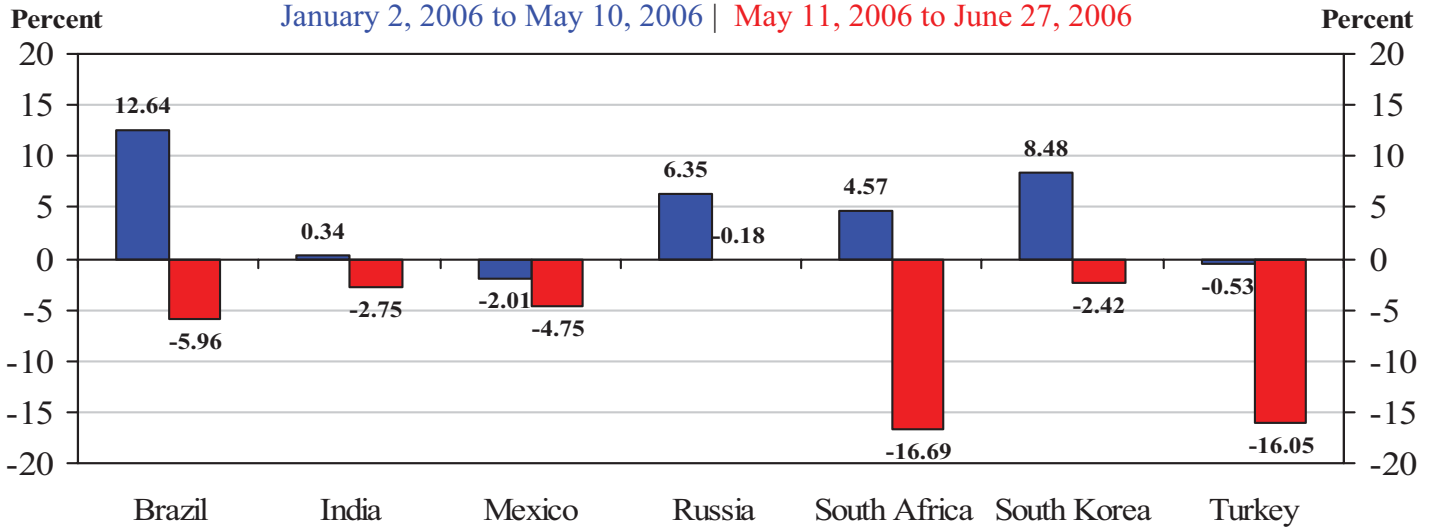
### Select International Equity Performance

January 2, 2006 to May 10, 2006 | May 11, 2006 to June 27, 2006



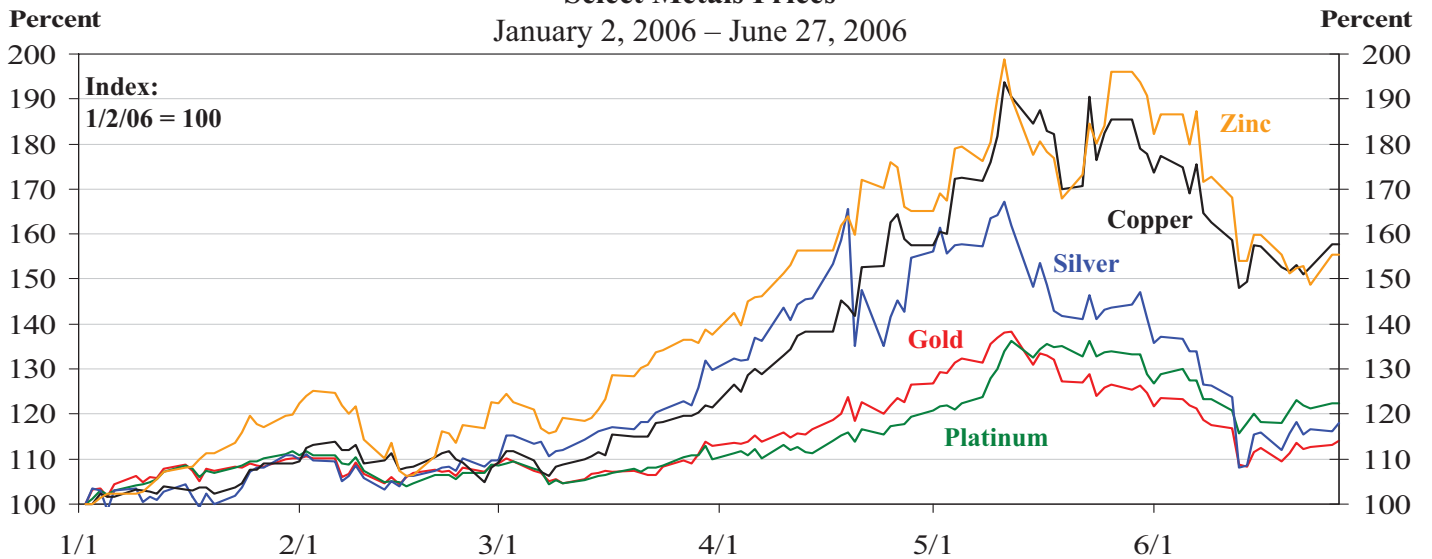
### Select Foreign Currency Performance vs. U.S. Dollar

January 2, 2006 to May 10, 2006 | May 11, 2006 to June 27, 2006

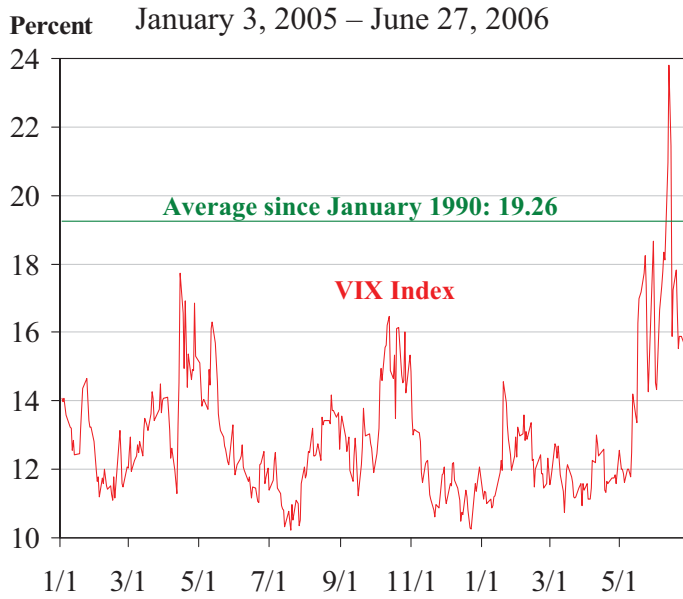


### Select Metals Prices

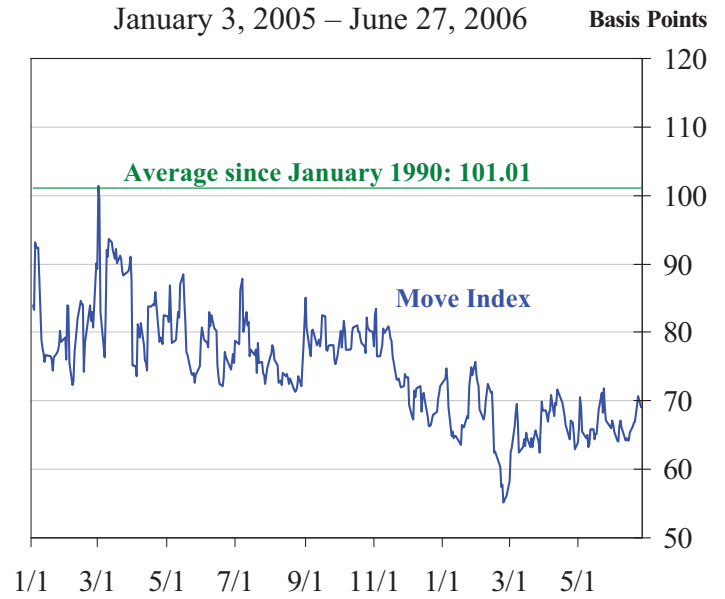
January 2, 2006 – June 27, 2006



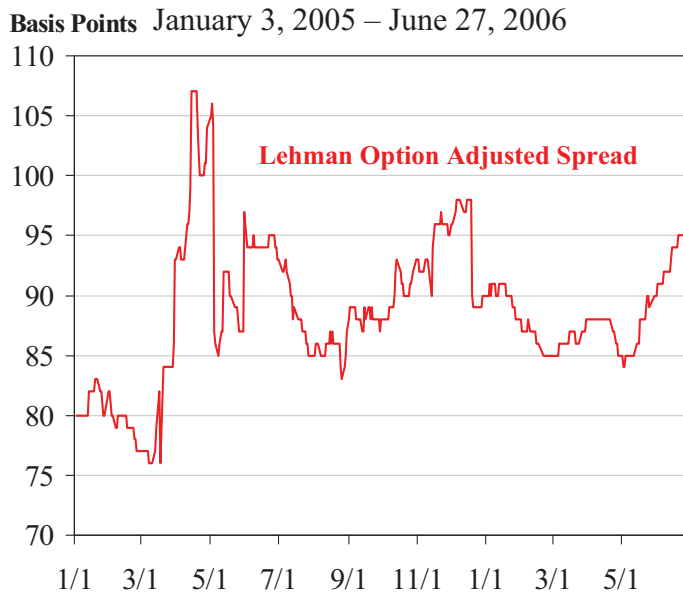
### Implied Volatility on the S&P 100



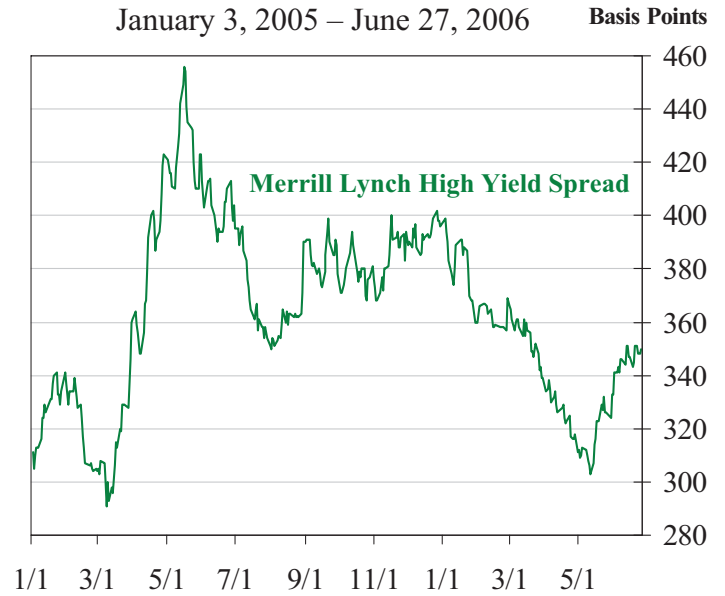
### Treasury Yield Implied Volatility



### Investment Grade Credit Spread



### High Yield Credit Spread

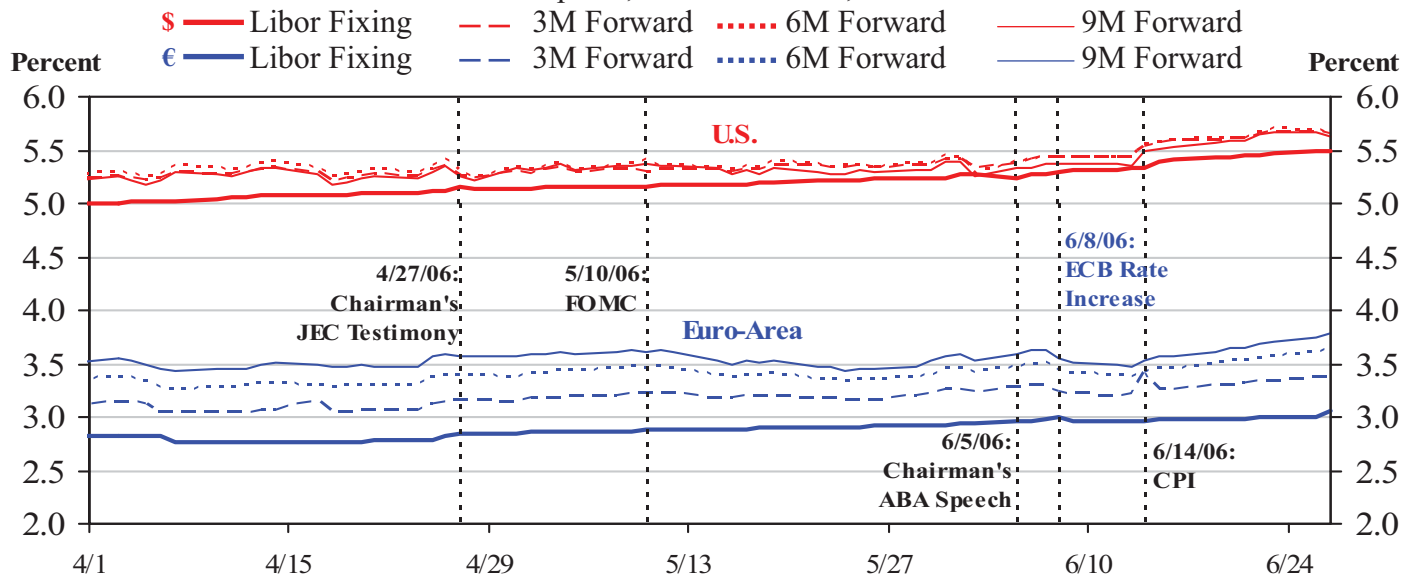


### EMBI+ Spread to Comparable Treasuries



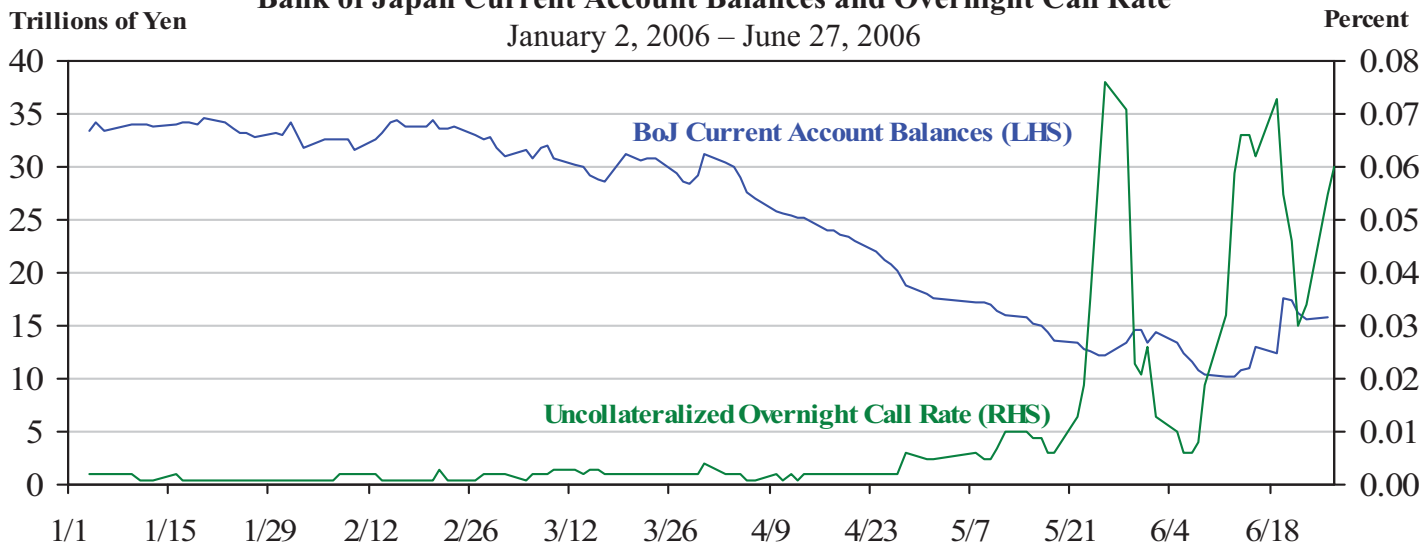
### Current 3-Month Deposit Rates and Rates Implied by Traded Forward Rate Agreements

April 1, 2006 to June 27, 2006

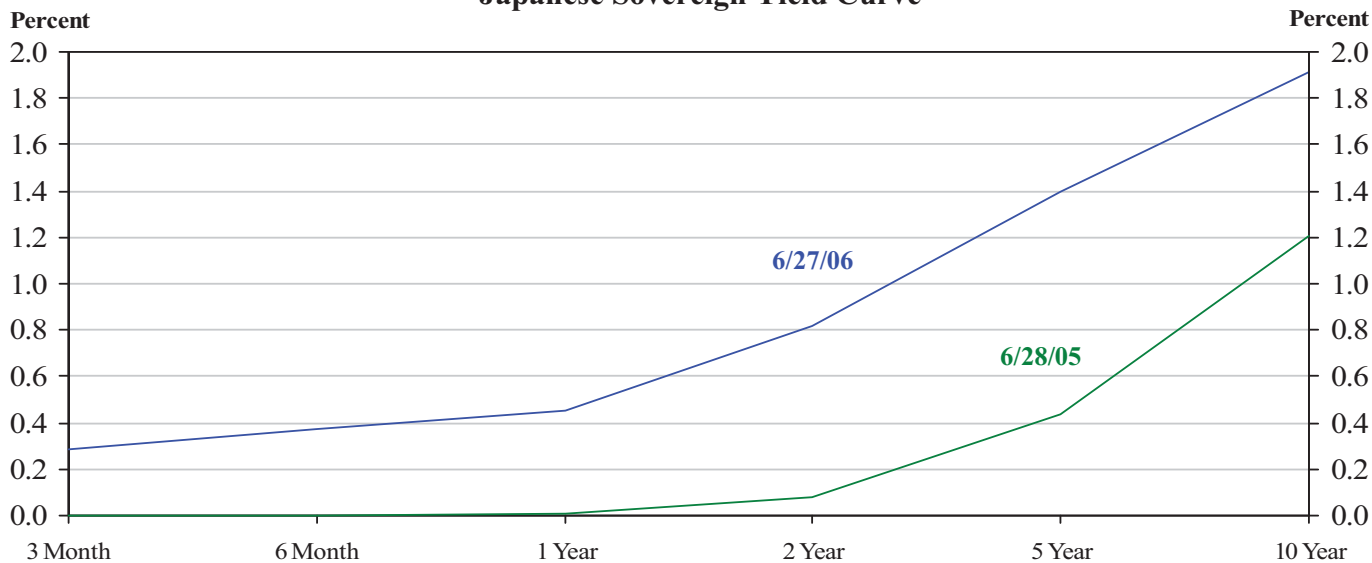


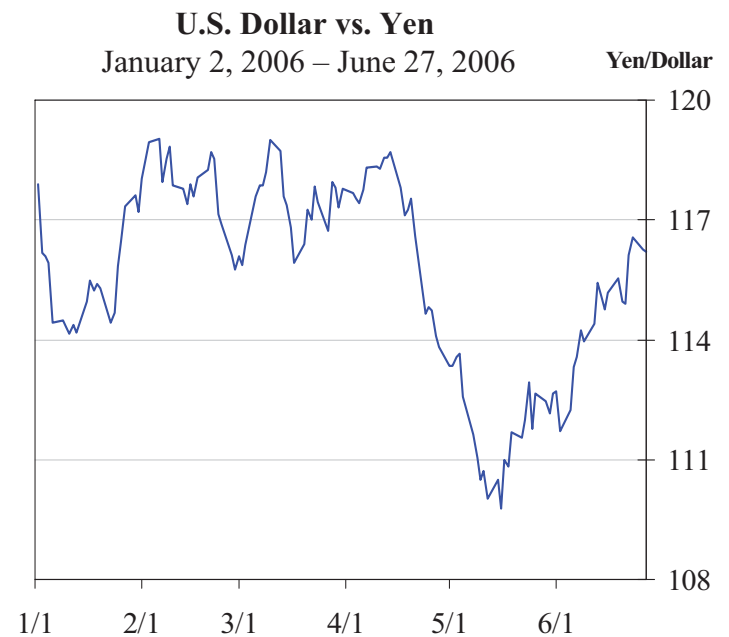
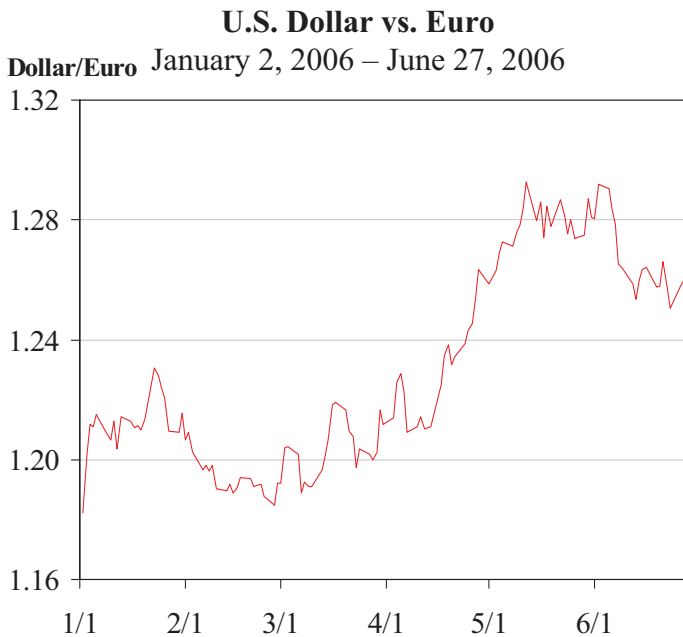
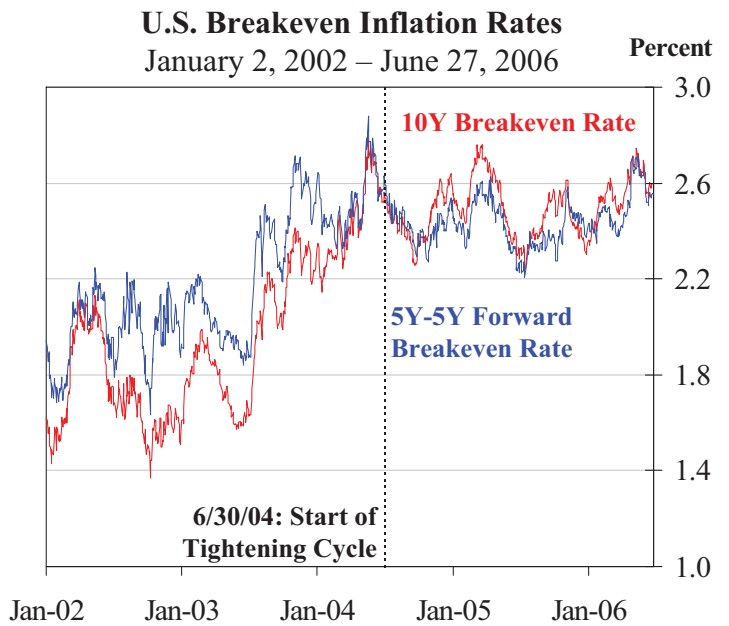
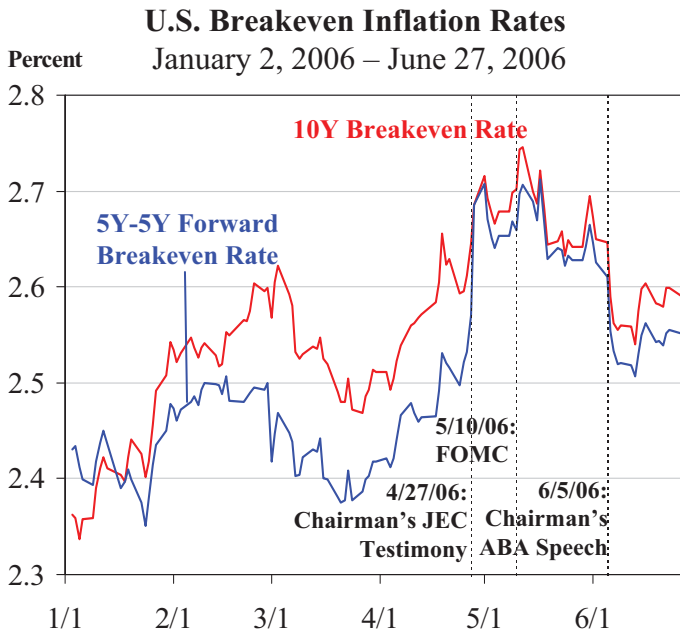
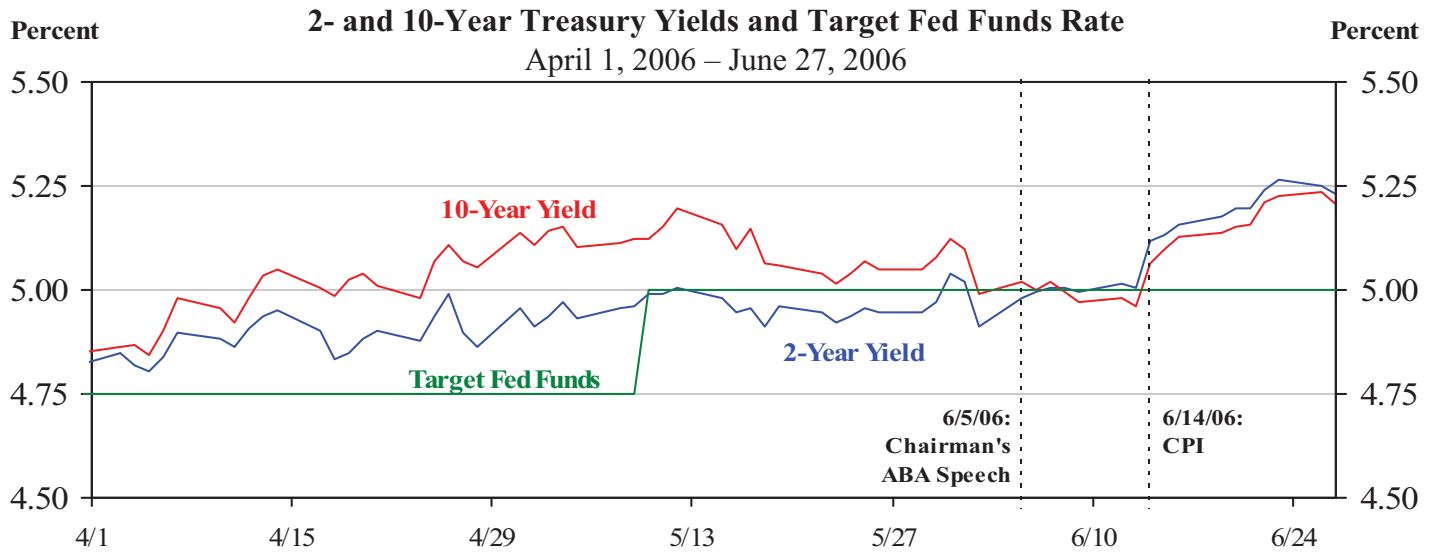
### Bank of Japan Current Account Balances and Overnight Call Rate

January 2, 2006 – June 27, 2006

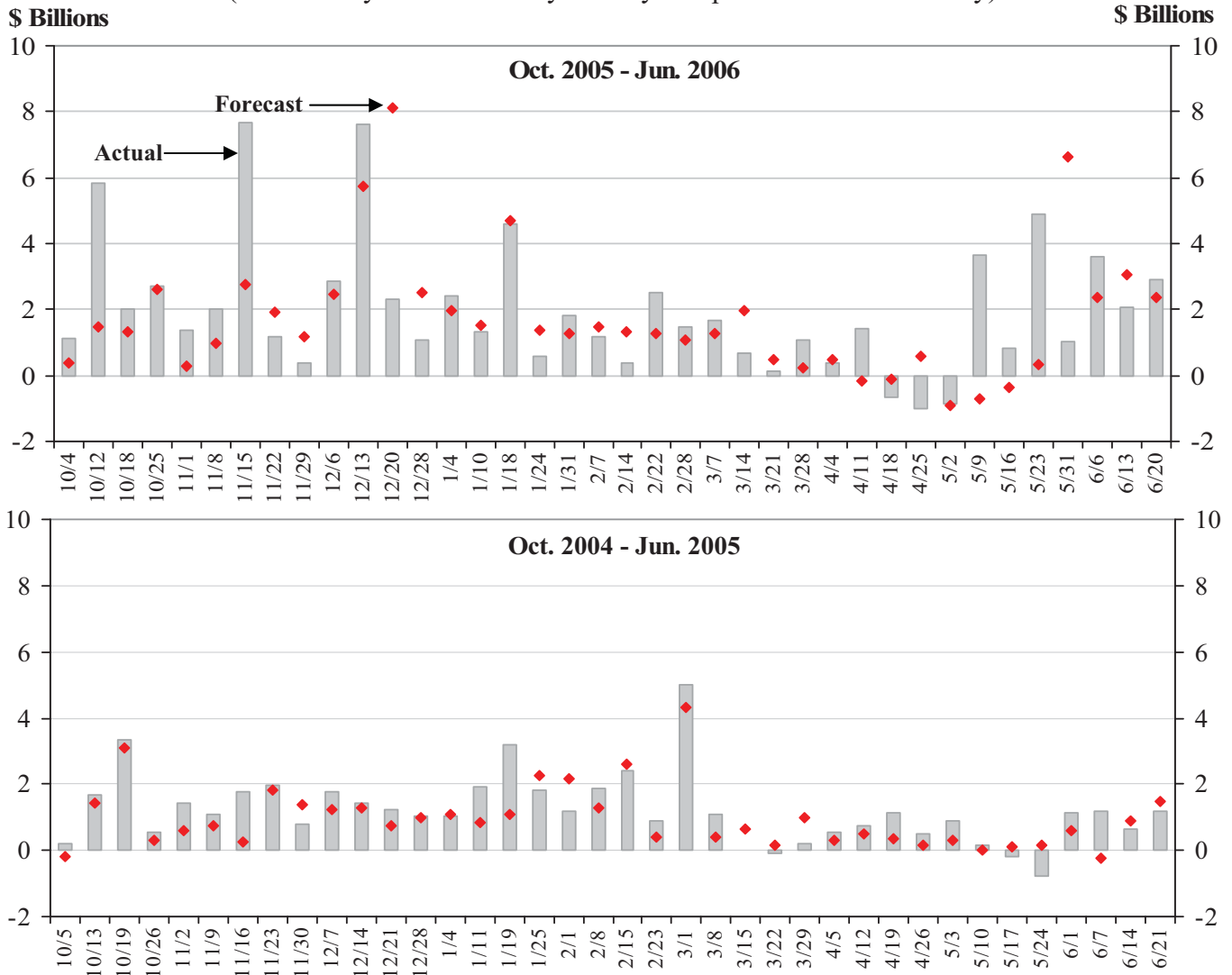


### Japanese Sovereign Yield Curve

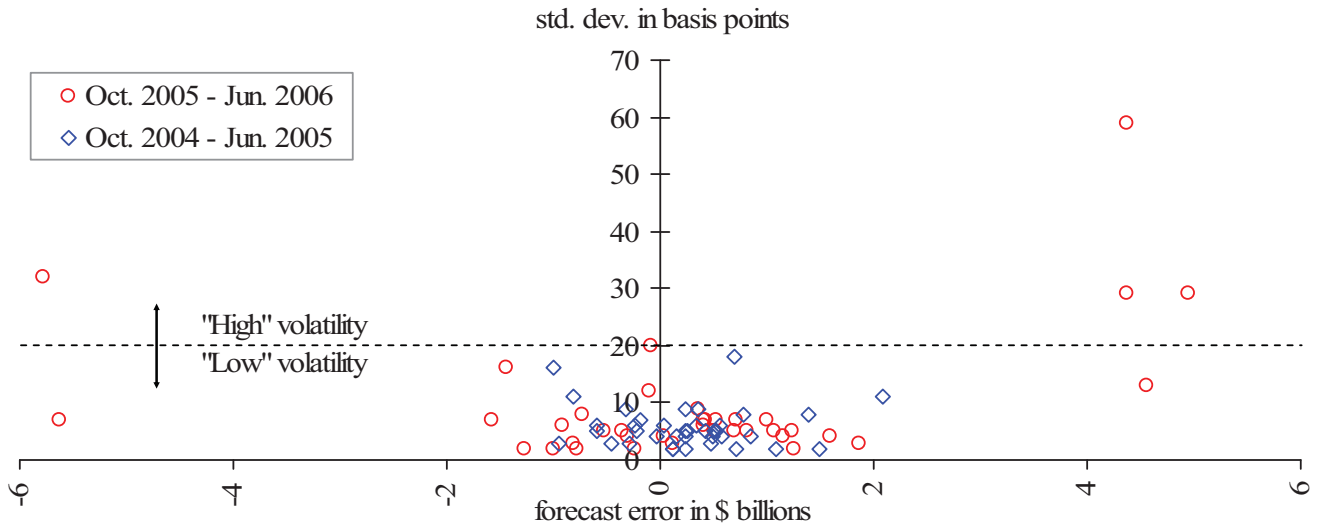




### Tuesday Float Levels and Forecasts (the Tuesday after a Monday holiday is replaced with Wednesday)



### Rate Volatility and Float Forecast Errors on Tuesdays



**Appendix 2: Materials used by Messrs. Slifman, Wilcox, and Kamin**

STRICTLY CONFIDENTIAL (FR) CLASS I-FOMC\*

*Material for*

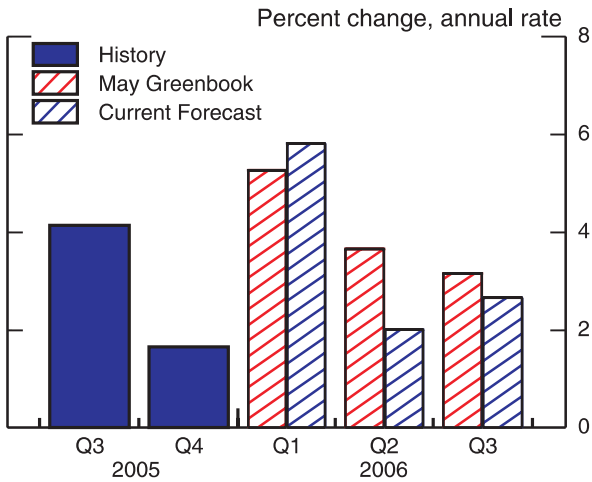
*Staff Presentation on the  
Economic Outlook*

*June 28, 2006*

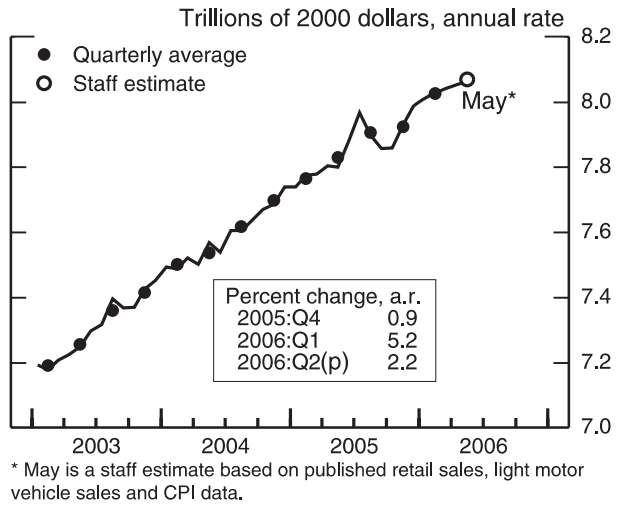
\*Downgraded to Class II upon release of the July 2006 Monetary Policy Report.

### Recent Indicators

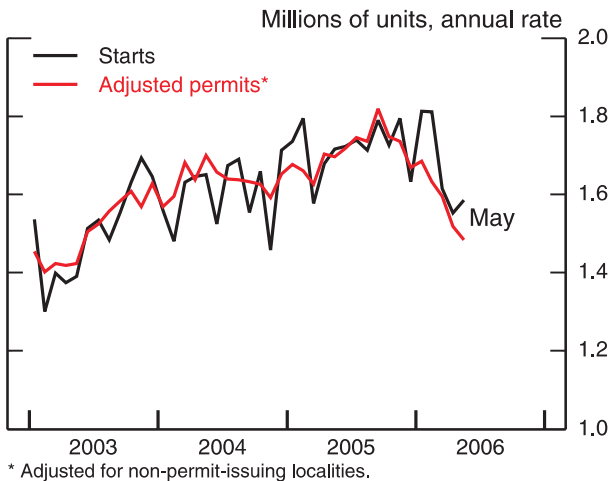
Real GDP



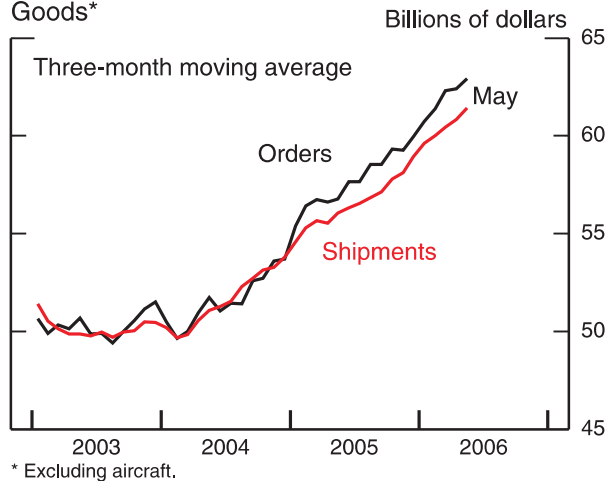
Real Personal Consumption Expenditures



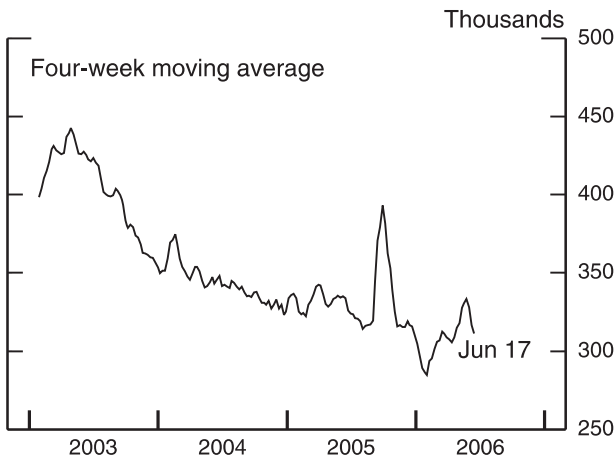
Single-Family Housing Starts



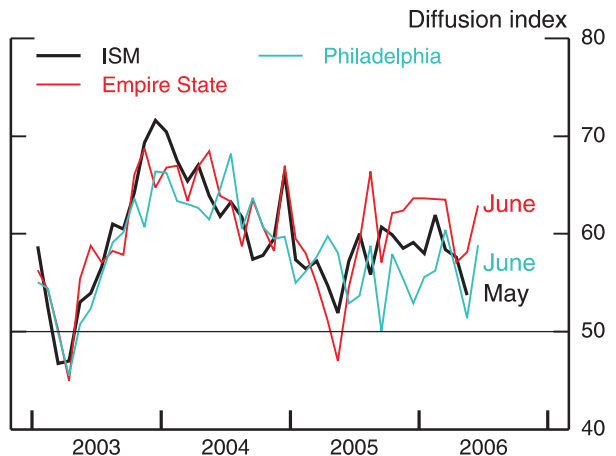
Orders and Shipments of Nondefense Capital Goods\*



Initial Claims for Unemployment Insurance

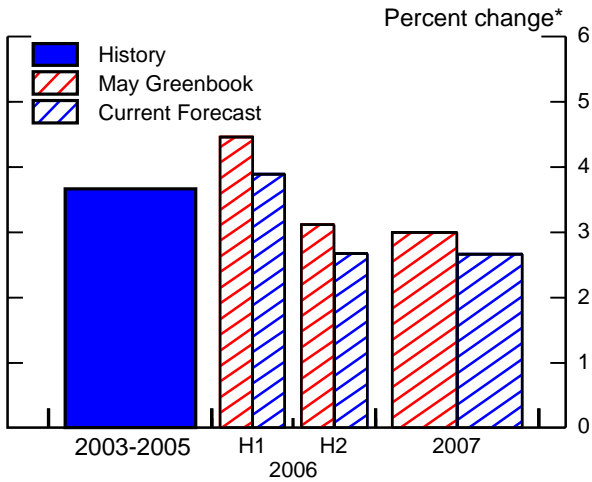


New Orders Indexes

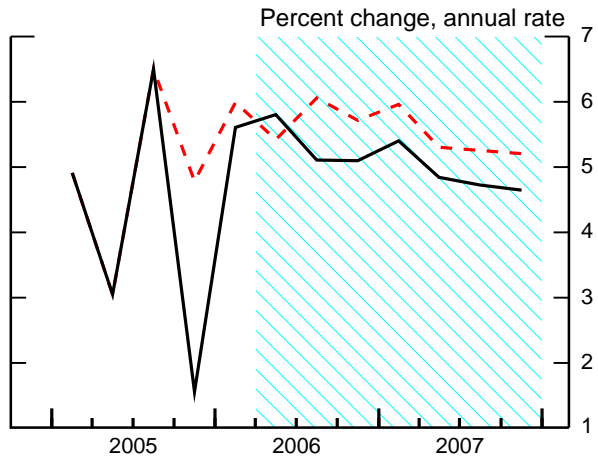


### Longer-Run Projection and Key Background Factors

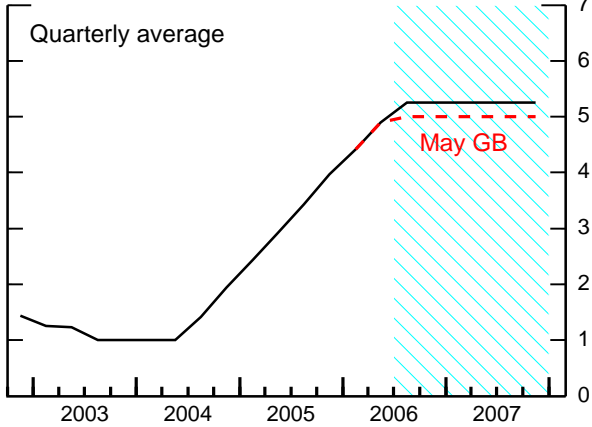
Real GDP



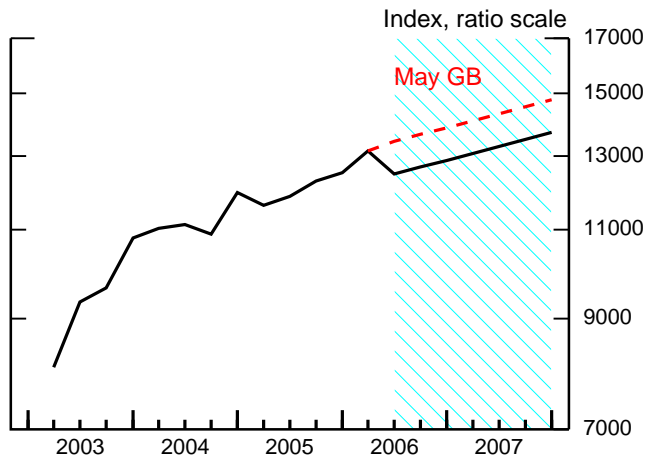
Change in Wage and Salary Disbursements



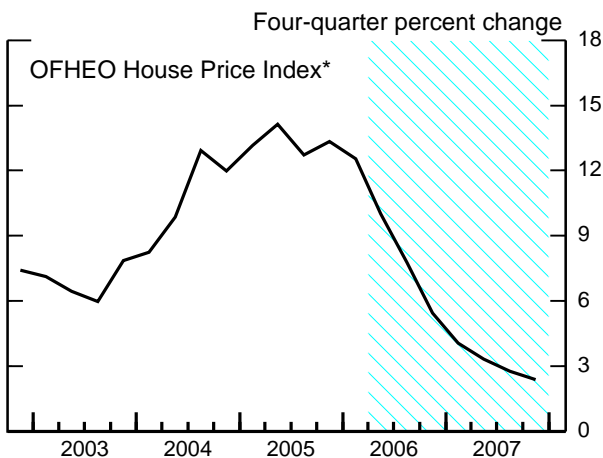
Federal Funds Rate



Wilshire 5000

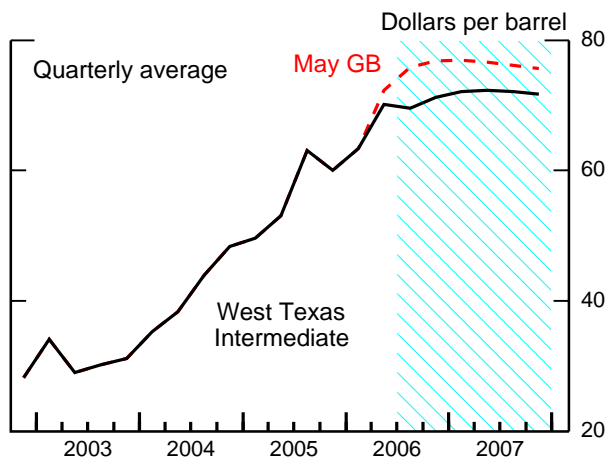


House Prices



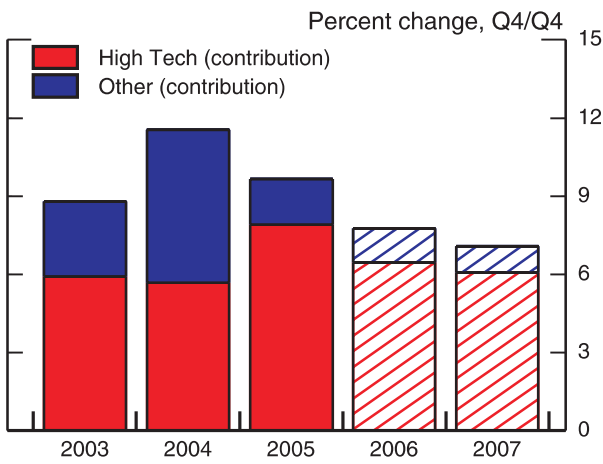
\* All transactions index.

Crude Oil Prices

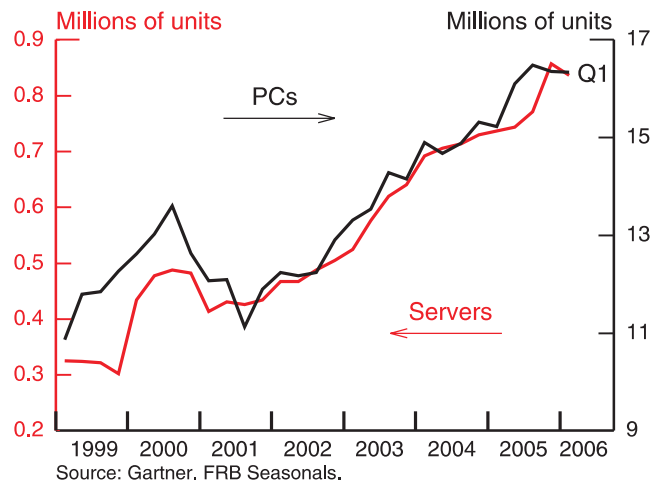


### Business Fixed Investment

E&S Spending excluding Transportation



U.S. Personal Computer and Server Sales



Computer Projection

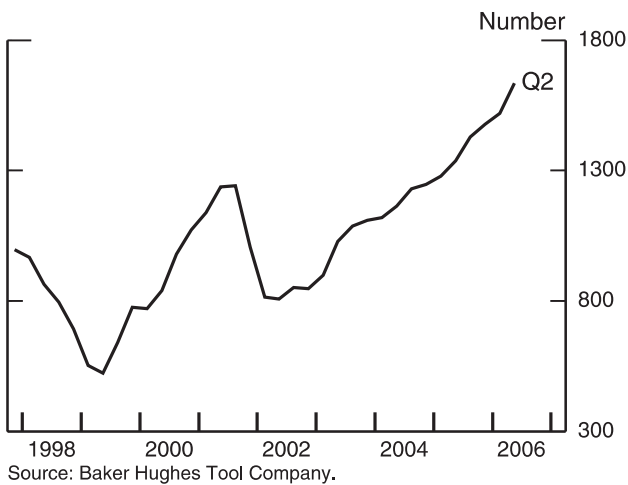
- Servers
  - New generations: faster computing and lower electricity consumption.
  - Sources of demand: financial services companies; internet content providers
- PCs
  - New Intel chip design will increase performance and reduce power consumption.
  - Prices on old chips plummeting.

Real Nonresidential Structures

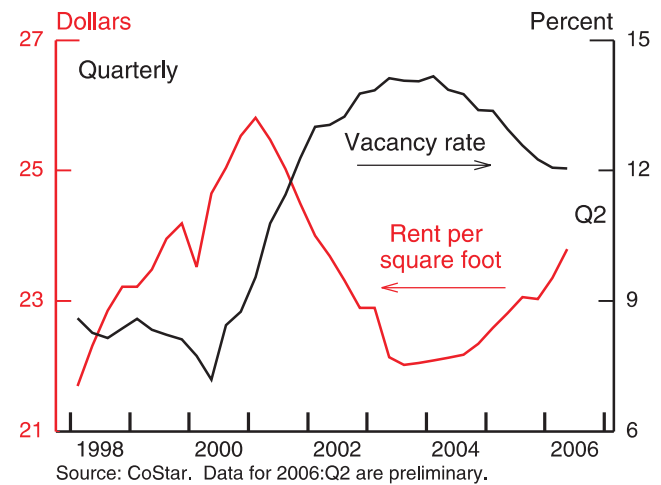
	Percent change, Q4/Q4		
	2005	2006 <sup>p</sup>	2007 <sup>p</sup>
1. Total Nonres.	1.5	10.3	4.6
2. Drilling and mining	16.7	11.7	7.4
3. Nonres ex. drilling and mining	-2.8	9.5	3.3

p - staff projection

Drilling Rigs in Operation

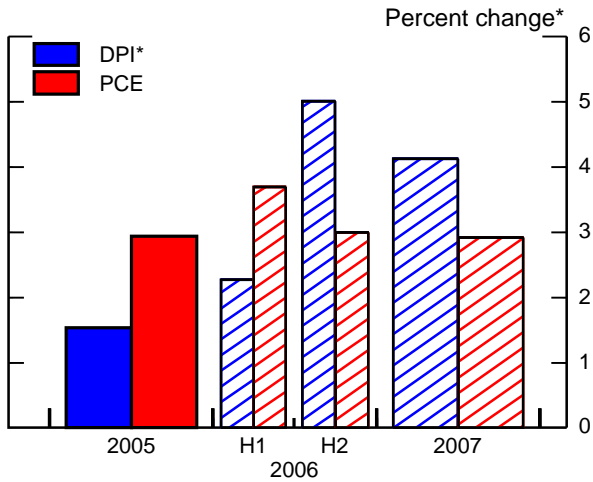


Office Vacancy Rate and Rent per Square Foot



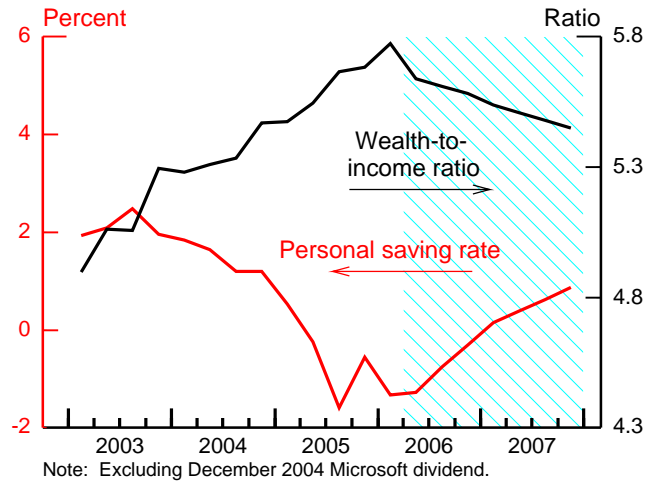
### Household Sector

Real PCE and DPI

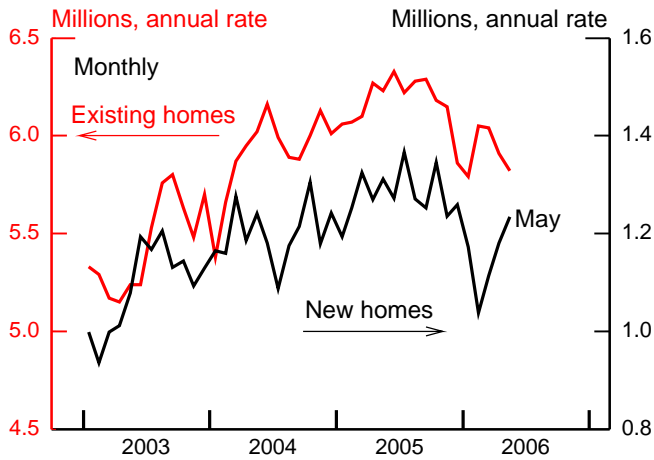


\* Excluding December 2004 Microsoft Dividend. Annual figures are Q4/Q4. Half-year figures are Q4/Q2 or Q2/Q4.

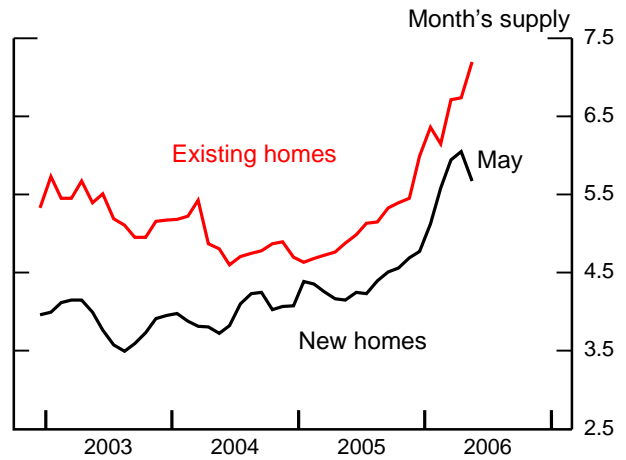
Saving Rate and Wealth-to-Income Ratio



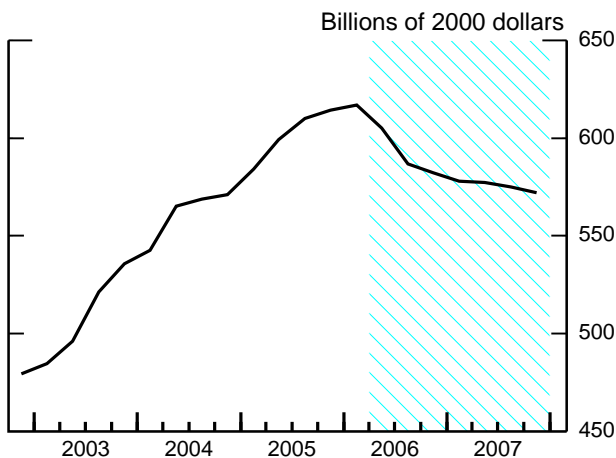
Sales of Single-family Homes



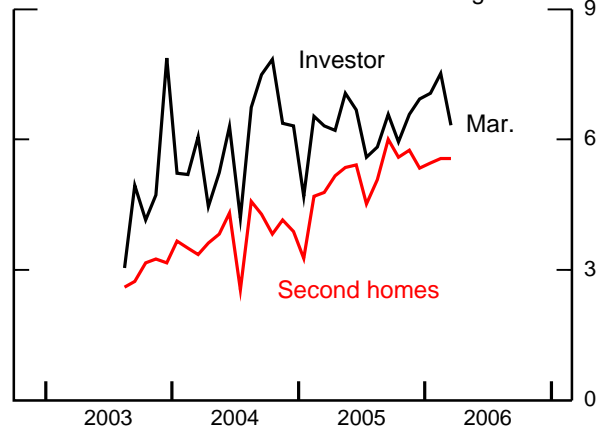
Unsold Homes\*



Real Residential Investment

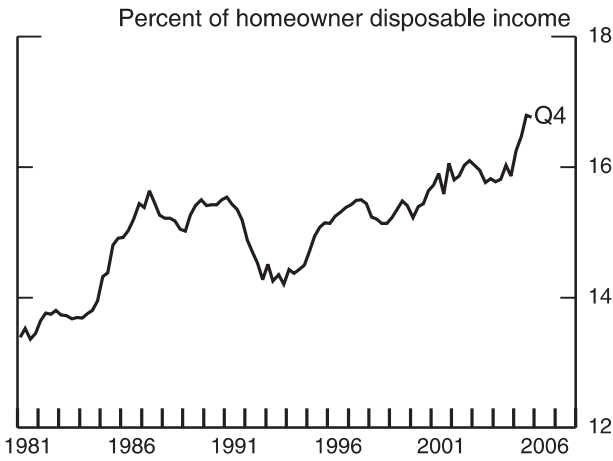


Investor and Second-Home Mortgage Originations



### Household Financial Conditions

Homeowners' Financial Obligation Ratio



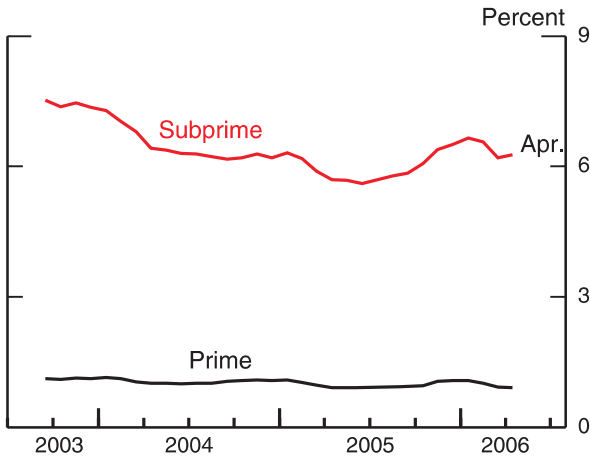
Mortgage Payment Resets

	2006	2007	2008 and beyond
<b>ARM</b>			
1. First rate reset	27	25	48
<b>IOs</b>			
2. First rate reset	11	24	65
3. End of IO term	4	10	86

\* Percent of mortgages in category experiencing indicated type of payment change relative to all mortgages in the category that have yet to face first payment change.

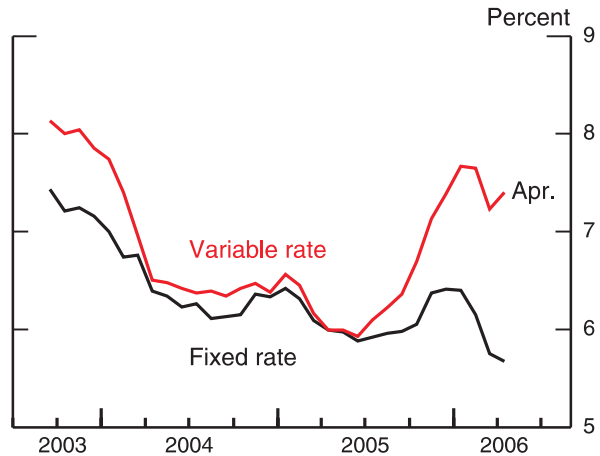
Note: Figures are staff estimates based on LoanPerformance.

Delinquency Rates



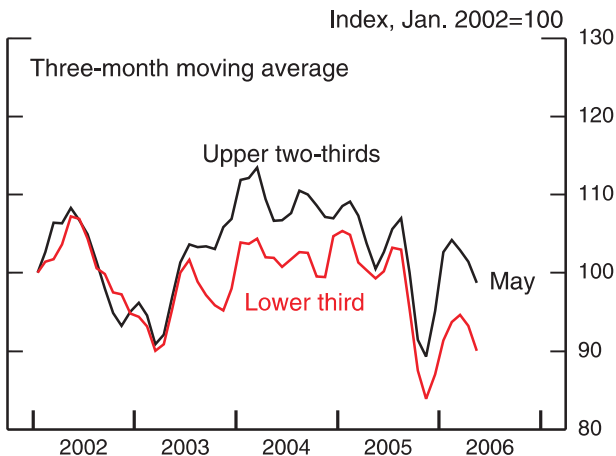
Note: Ninety-plus days delinquent or in foreclosure. Source: LoanPerformance.

Delinquency Rates for Subprime Mortgages



Note: Ninety-plus days delinquent or in foreclosure. Source: LoanPerformance.

Consumer Sentiment by Income Group



Source: Michigan Survey.

Implications

- Baseline projection for the household sector incorporates these developments.
- The greater stress among the most financially vulnerable segment of households presents a risk to the forecast.

### The Outlook for Compensation

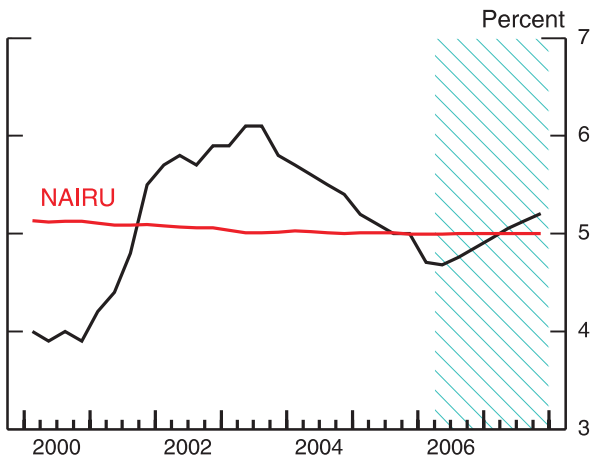
Compensation Per Hour  
Percent change, annual rate

	P&C	ECI
2005: Q1	5.6	3.8
Q2	1.3	2.5
Q3	5.5	2.9
Q4	-.9	2.8
2006: Q1	5.1	2.4

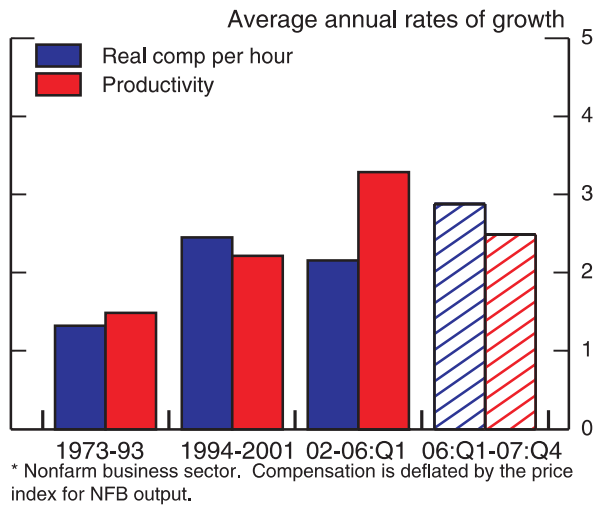
Selected Differences Between the ECI and P&C Comp per Hour

- **Measurement objectives:** The cost of employing a fixed market-basket of labor versus the current workforce.
- **Source data:** A survey of firms versus administrative records covering the universe of firms.
- **Technical issues:** For example, the handling of stock options and pension-related costs.

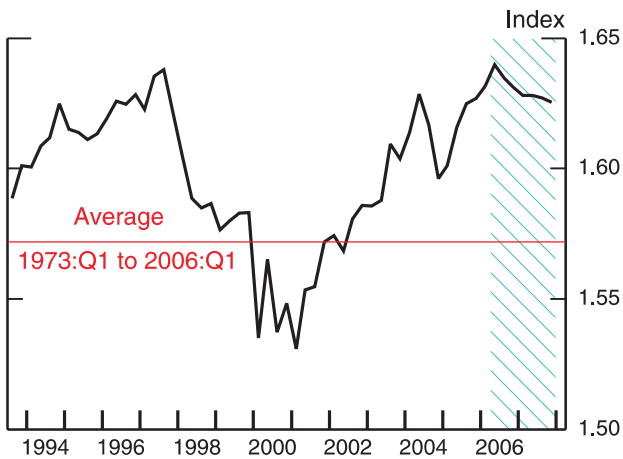
Unemployment Rate



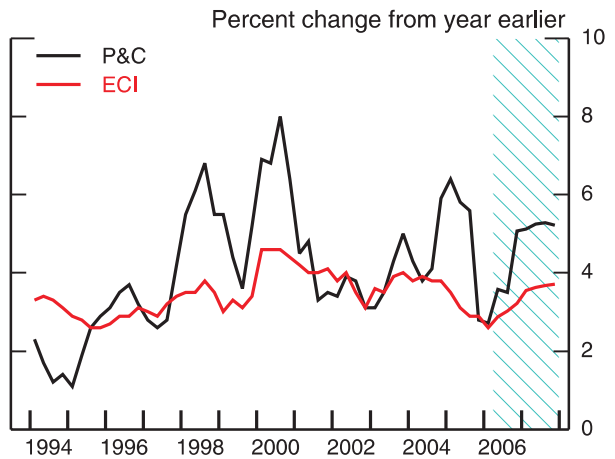
Real Compensation and Productivity Growth\*



Price Markup for the Nonfarm Business Sector



Compensation per Hour



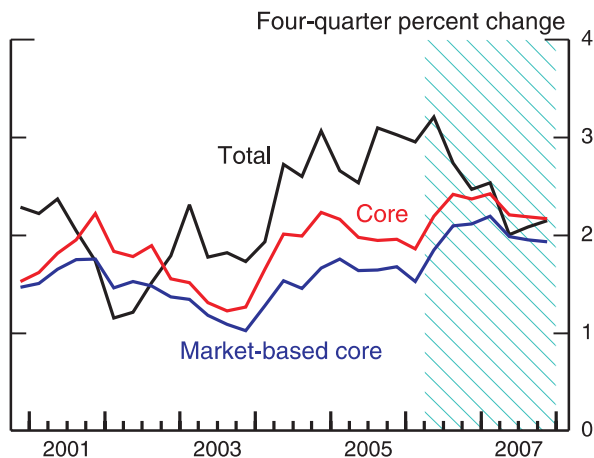
### The Outlook for Price Inflation

PCE Prices

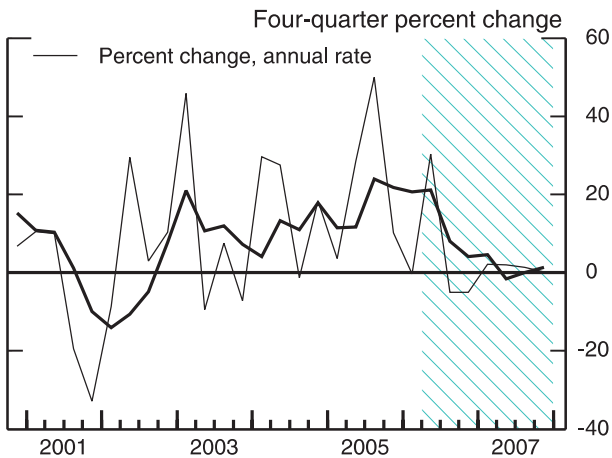
	Percent change		
	Total	Core	Market-Based Core
Jan.	.5	.15	.09
Feb.	.1	.15	.11
Mar.	.4	.34	.32
Apr.	.5	.25	.21
May (f)	.4	.25	.26
Q1	2.0	2.0	1.6
Q2 (f)	4.3	3.1	2.8

Note: Quarterly figures are at annual rates.

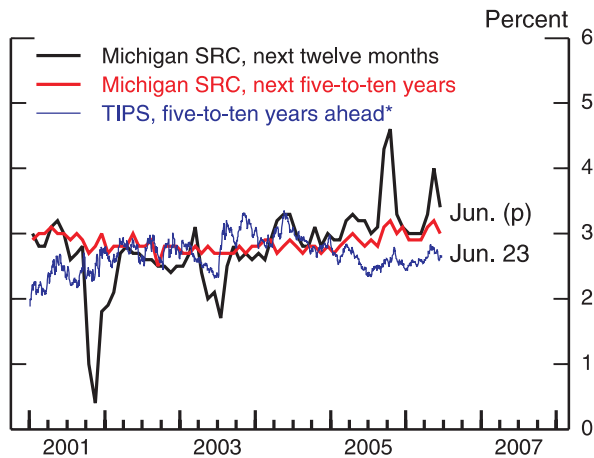
PCE Prices



PCE Energy Prices



Expected Inflation



\* Estimates of inflation compensation based on smoothed nominal and inflation-indexed Treasury yield curves.

PCE Prices

	Percent change, annual rate*			
	2005	2006:H1	2006:H2	2007
1. PCE price index	3.0	3.1	1.8	2.2
2. (May GB)	(3.0)	(3.0)	(2.1)	(2.0)
3. Energy	21.8	14.0	-5.0	1.4
4. (May GB)	(21.8)	(13.9)	(1.3)	(1.5)
5. Core PCE	2.0	2.5	2.2	2.2
6. (May GB)	(2.0)	(2.3)	(2.1)	(2.0)

\* Annual figures are Q4/Q4. Half-yearly figures are Q4/Q2 or Q2/Q4.

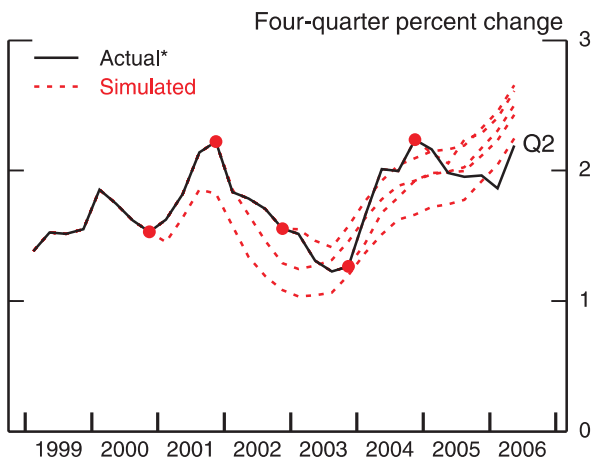
## Have Inflation Models Been Moving off Track Recently?

### Two Models Among Many

- A backward-looking model proxies for underlying or expected inflation using lagged inflation only.
- A partly forward-looking model uses a weighted average of lagged inflation and expected inflation as measured in the Survey of Professional Forecasters.
- Neither model has been substantially and consistently surprised by the performance of inflation over the last several years.

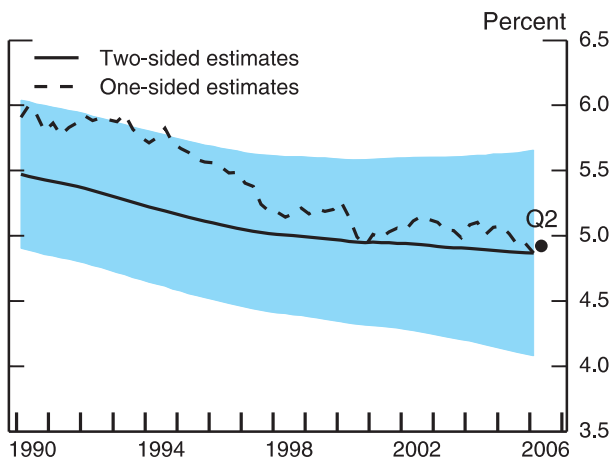
### The Backward-Looking Model

Core PCE Prices



\* Figure for 2006:Q2 is a staff forecast.

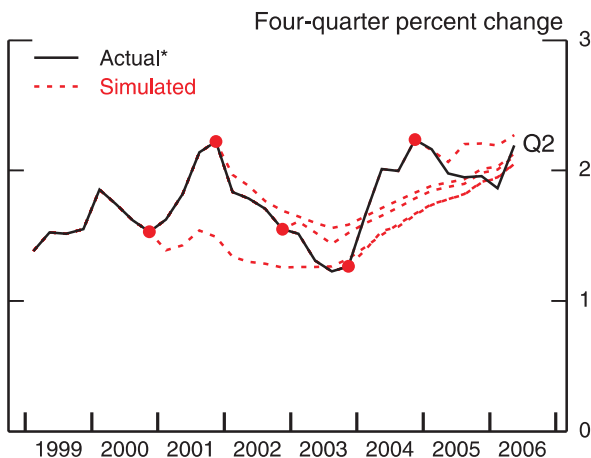
Kalman Filter Estimates of the NAIRU\*



\* The shaded area denotes the 90 percent confidence region for the two-sided estimates.

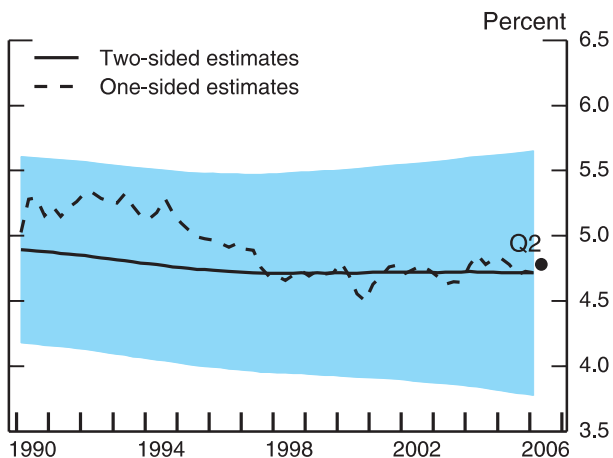
### The Partly Forward-Looking Model

Core PCE Prices



\* Figure for 2006:Q2 is a staff forecast.

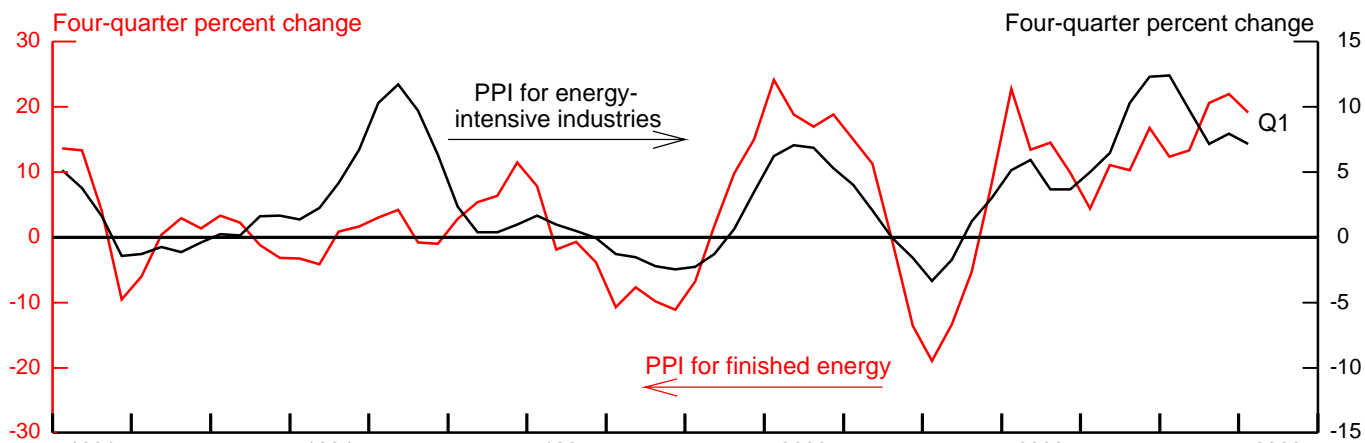
Kalman Filter Estimates of the NAIRU\*



\* The shaded area denotes the 90 percent confidence region for the two-sided estimates.

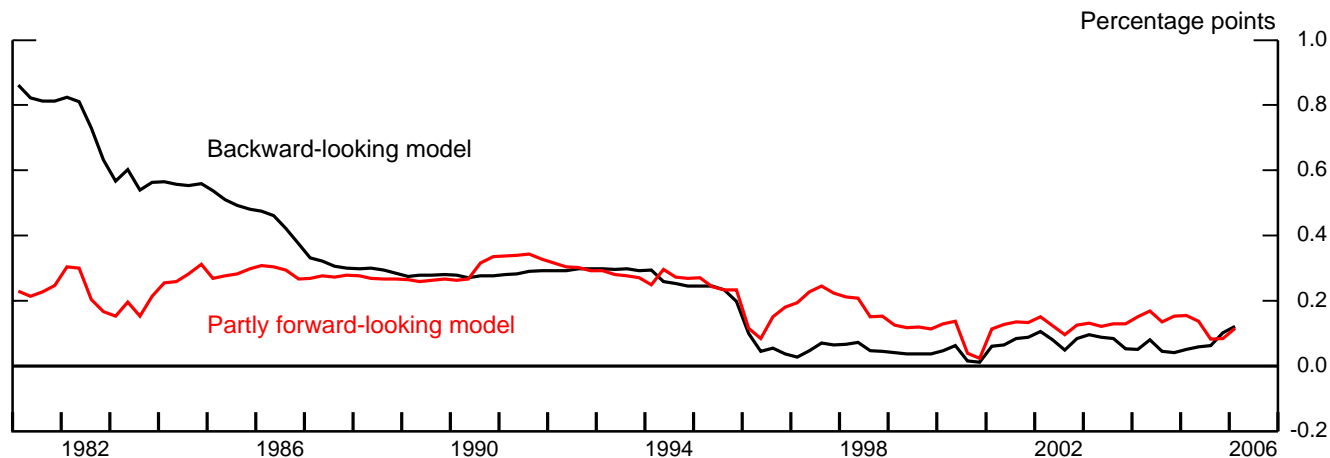
### The Pass-Through of Energy Prices

Energy Prices and a PPI for Energy-Intensive Industries



Note: The PPI for energy-intensive industries is a staff-calculated aggregation of price indexes for industries having an energy cost share greater than 5 percent, based on the 1997 input-output table.

Estimated Pass-through into Core PCE price inflation\*



\* The vertical axis measures the estimated response of core PCE price inflation after eight quarters to a permanent 10-percent increase in the relative price of energy. The results are based on 15-year rolling estimation periods. Dates on the horizontal axis denote the end of the estimation window.

#### Judgmental Assumptions about Energy-Price Pass-Through

- We assume that a permanent ten-percent increase in the relative price of energy would boost core inflation about 0.2 percentage point after eight quarters.
- Models that are forced to assume zero energy-price pass-through have been a little surprised by how high inflation has been in the last few quarters.
- Models that assume a larger pass-through than the one we use judgmentally have been a little surprised by how low inflation has been.

## Housing Prices in the CPI and PCE Price Index

### Two Approaches to Measuring the Price of Owner-Occupied Housing Services

- The *user-cost* approach:

$$(1) \quad \begin{array}{l} \text{Price of} \\ \text{housing services} \end{array} = P_t (i_t + \delta - E_t \pi_{t+1}^h)$$

= imputed interest expense + depreciation – expected capital gain

- The *rental-equivalence* approach:

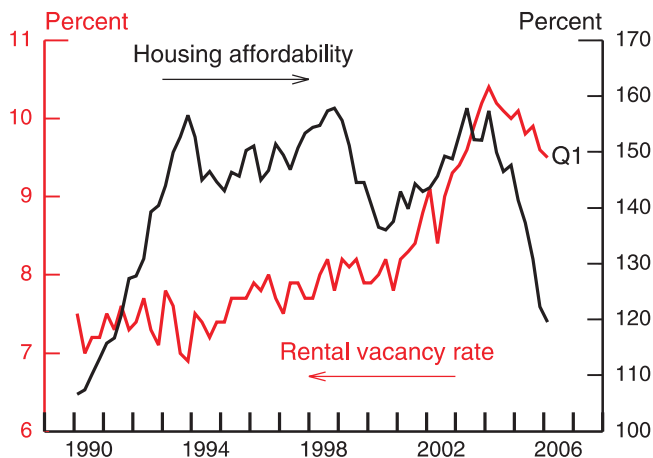
$$(2) \quad \begin{array}{l} \text{Price of} \\ \text{housing services} \end{array} = \text{Rent}$$

- In a perfect world, the two approaches would give the same answer, implying:

$$(3) \quad \text{Rent} = P_t (i_t + \delta - E_t \pi_{t+1}^h)$$

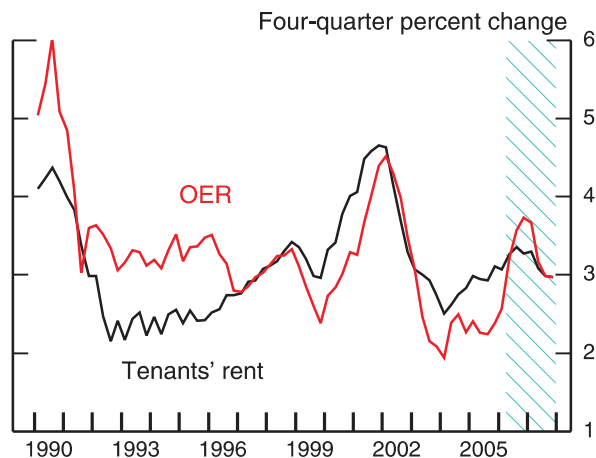
- OER is a theoretically appropriate element of a cost-of-living index.
- Whether the FOMC should define its objectives relative to such an index depends on what costs you are seeking to minimize.

Housing Affordability and the Rental Vacancy Rate\*

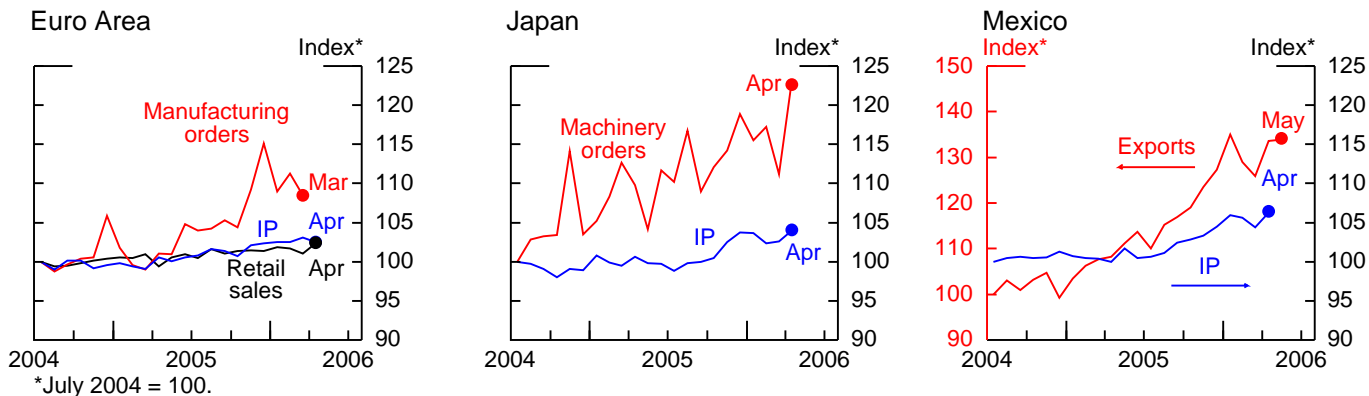


\* Housing affordability is defined as the ratio of median family income to the amount required to qualify for a mortgage on the median-priced existing single-family home.

Tenants' Rent and OER



### Outlook for Foreign Growth



Foreign Real GDP\*

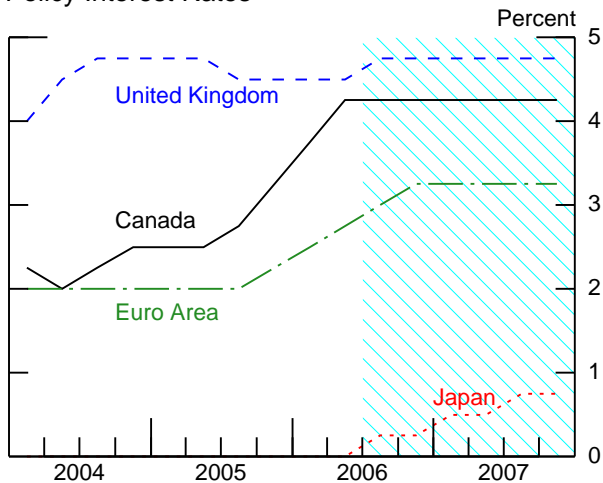
Percent change, a.r.\*\*

	2005:H2	2006		2007p
		Q1	Q2p	H2p
<b>1. Total Foreign</b>	<b>4.1</b>	<b>4.5</b>	<b>3.5</b>	<b>3.3</b>
<b>2. Industrial Countries</b>	<b>2.6</b>	<b>3.1</b>	<b>2.7</b>	<b>2.4</b>
of which:				
3. Japan	2.8	3.1	3.0	2.0
4. Euro Area	1.9	2.4	2.7	2.0
5. United Kingdom	2.2	2.3	2.5	2.6
6. Canada	2.9	3.8	2.5	2.6
<b>7. Emerging Economies</b>	<b>6.4</b>	<b>6.6</b>	<b>4.6</b>	<b>4.6</b>
of which:				
8. China	10.2	13.3	8.0	7.6
9. Emerging Asia ex. China	7.2	5.0	4.7	4.8
10. Mexico	5.5	6.3	3.2	3.4

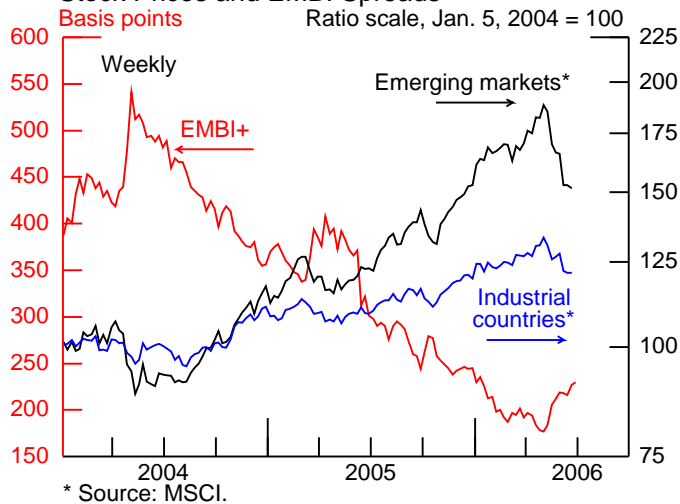
\* Aggregates weighted by shares of U.S. exports.

\*\* Year is Q4/Q4; half years are Q4/Q2; quarters are percent change from previous quarter.

#### Policy Interest Rates



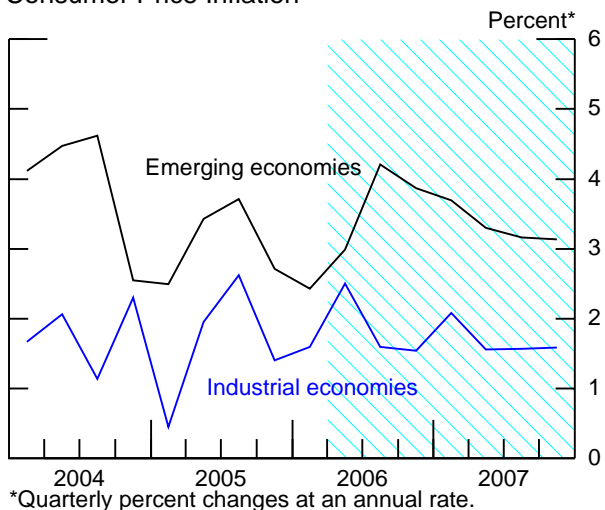
#### Stock Prices and EMBI Spreads



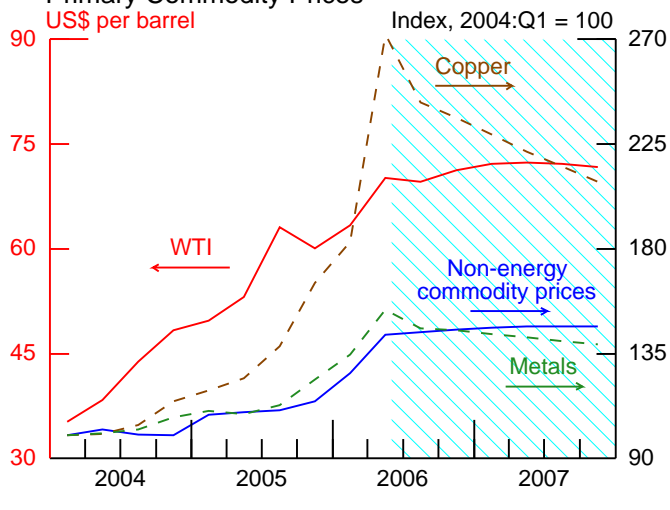
\* Source: MSCI.

### Commodity Prices and Global Growth

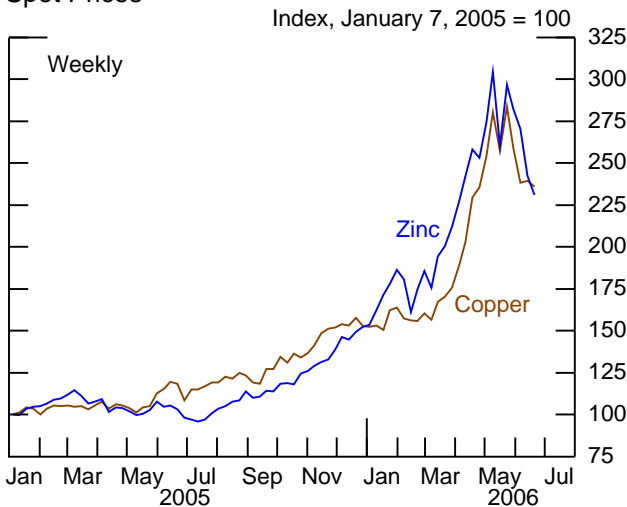
Consumer Price Inflation



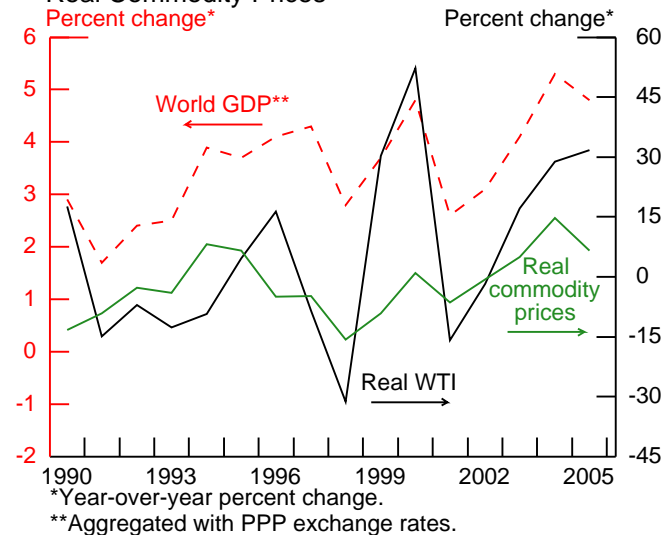
Primary Commodity Prices



Spot Prices



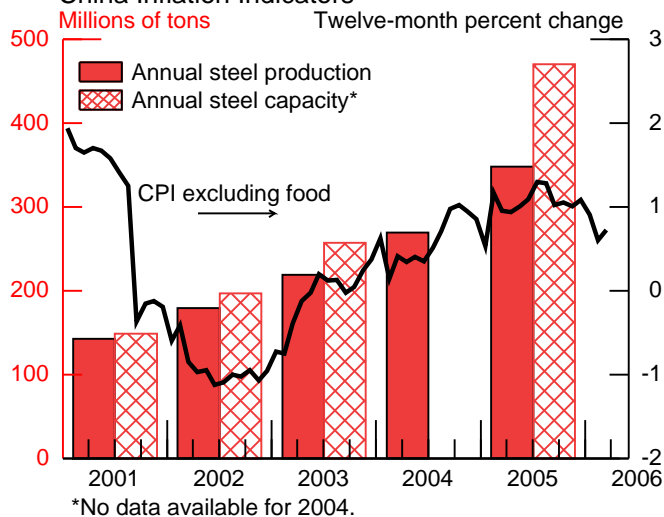
Real Commodity Prices



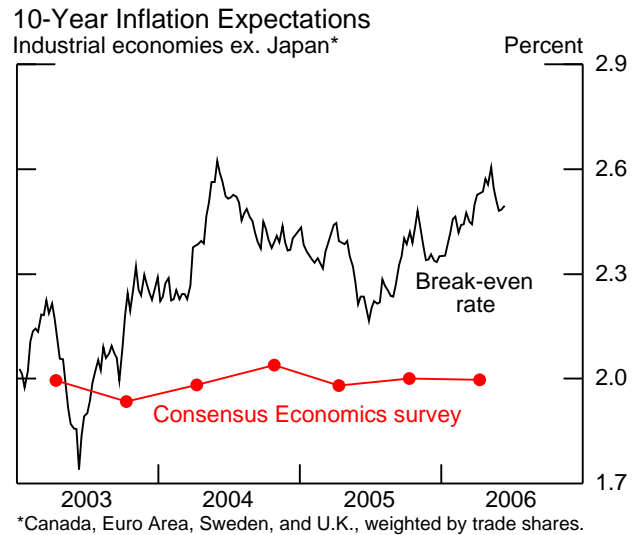
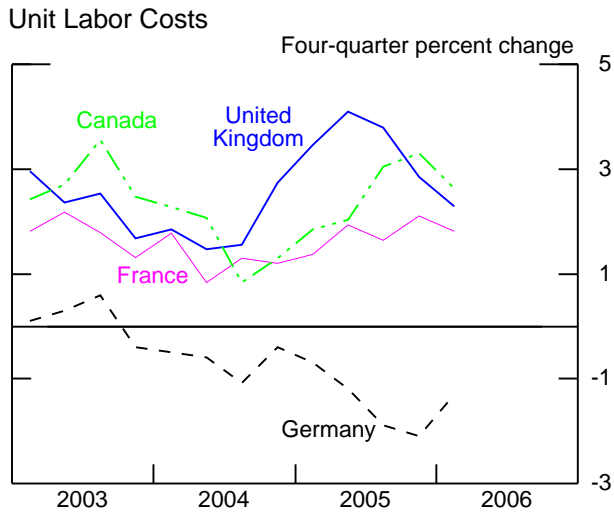
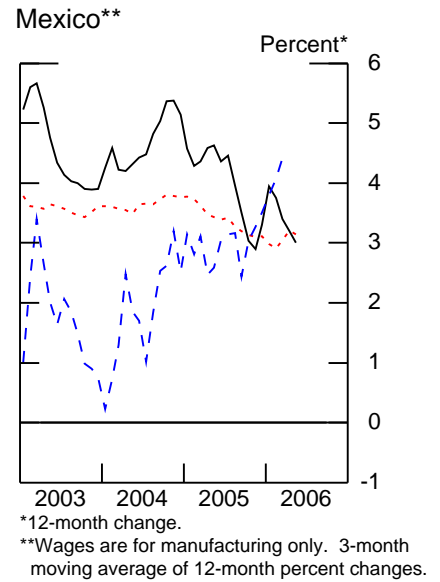
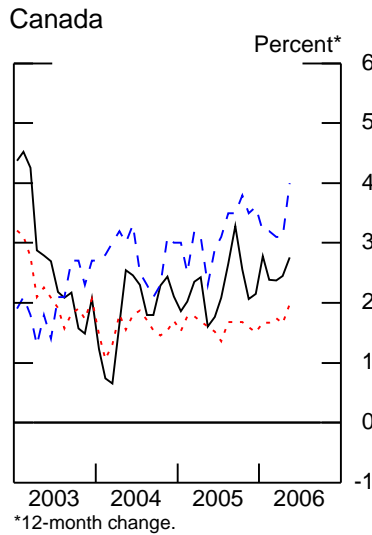
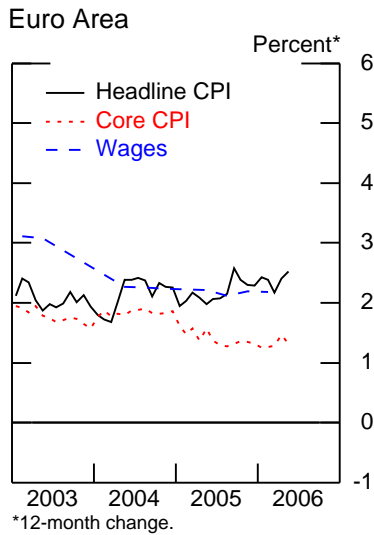
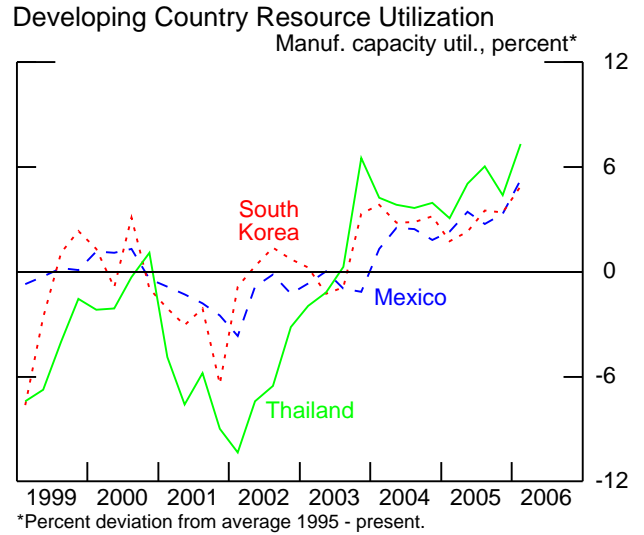
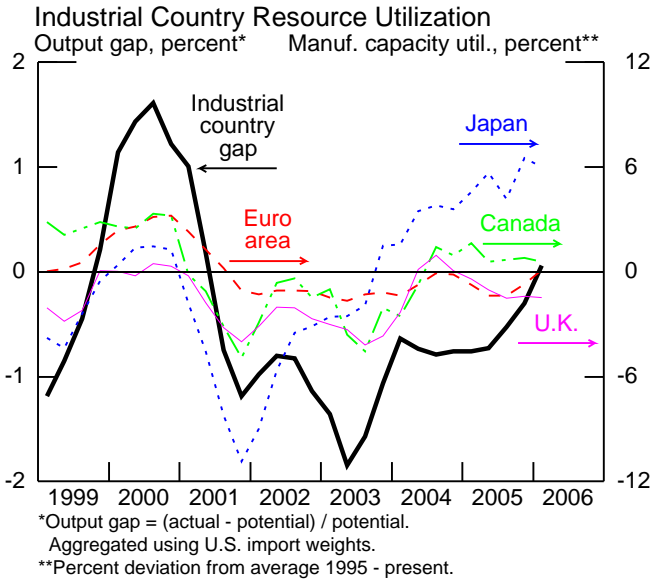
China's Contribution to Growth

	2003	2004	2005
1. World GDP growth (%)	4.1	5.3	4.8
2. Contribution of China	1.4	1.5	1.5
3. Increase in world oil consumption (Mb/d)	1.6	3.2	1.1
4. Increase in Chinese oil consumption (Mb/d)	0.6	0.9	0.2

China Inflation Indicators

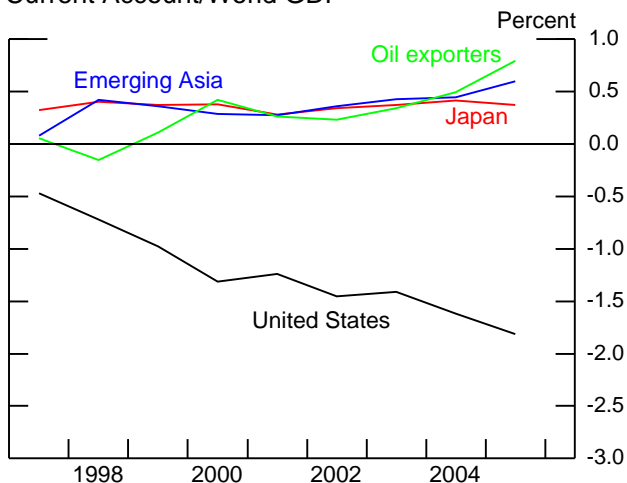


### Global Inflation Indicators

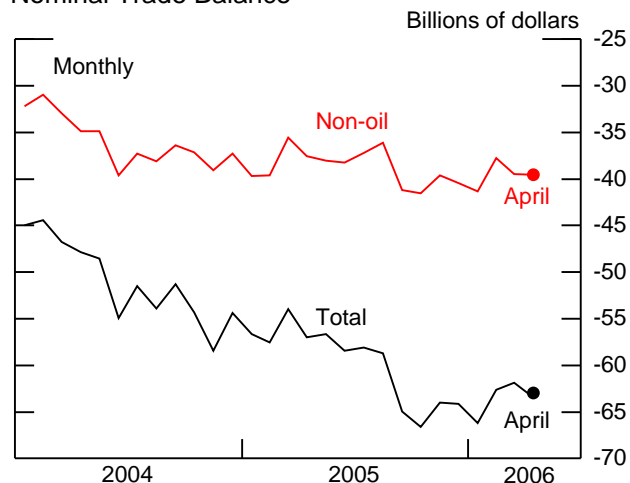


### External Imbalances and the Dollar

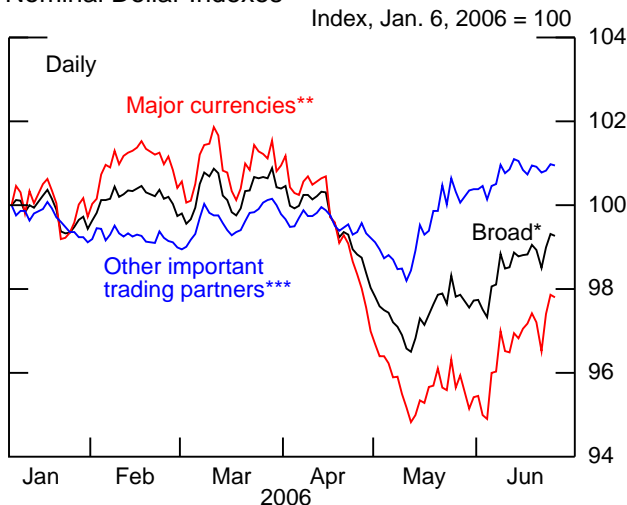
Current Account/World GDP



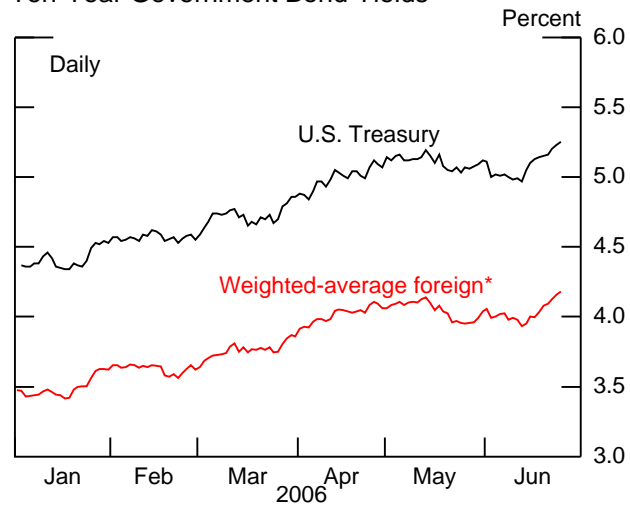
Nominal Trade Balance



Nominal Dollar Indexes



Ten-Year Government Bond Yields



\*Includes major currencies and other important trading partners.

\*\*Trade-weighted average against major foreign currencies.

\*\*\*Trade-weighted average against other important trading partners.

\* Average of rates for Australia, Canada, Euro area, Japan, Sweden, Switzerland, and United Kingdom, weighted by trade shares.

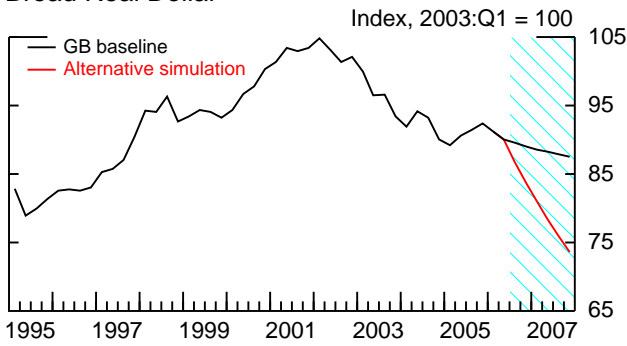
#### U.S. Financial Flows

Billions of dollars, s.a.

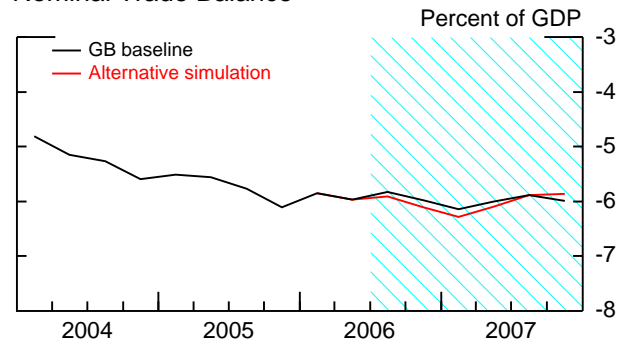
	2005:Q4	2006:Q1	March	April
1. Current account balance	-223	-209	...	...
2. Official capital, net inflow	77	76	17	21
3. Private capital, net inflow	166	82	...	...
Of which:				
4. Foreign purchases of U.S. securities	193	181	74	14
5. U.S. purchases of foreign securities	-48	-53	-21	-14
6. Net banking flows	56	11	5	87

### Alternative Scenarios for the Dollar

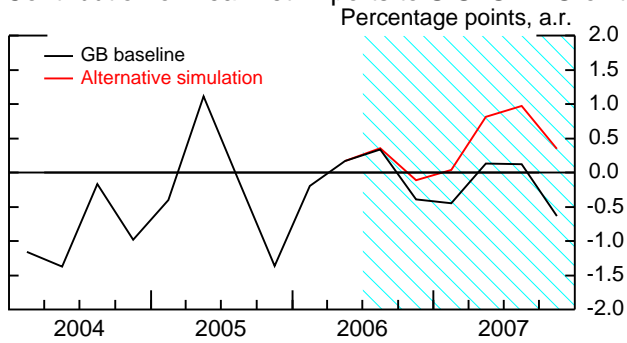
Broad Real Dollar



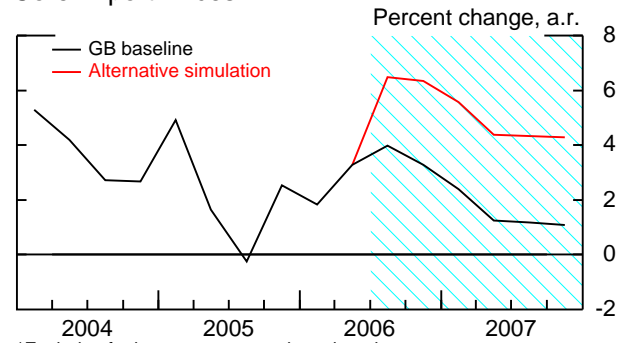
Nominal Trade Balance



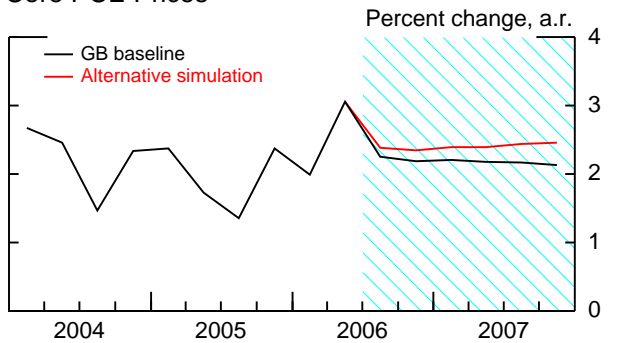
Contribution of Real Net Exports to U.S. GDP Growth



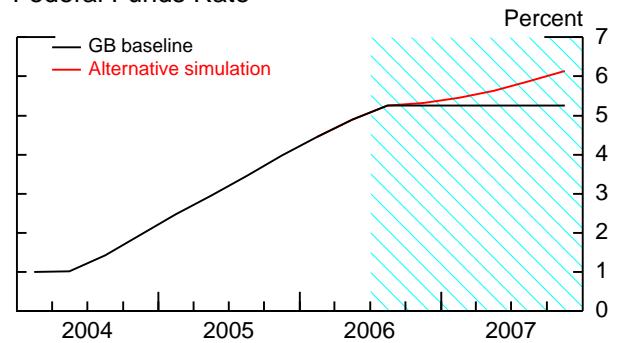
Core Import Prices\*



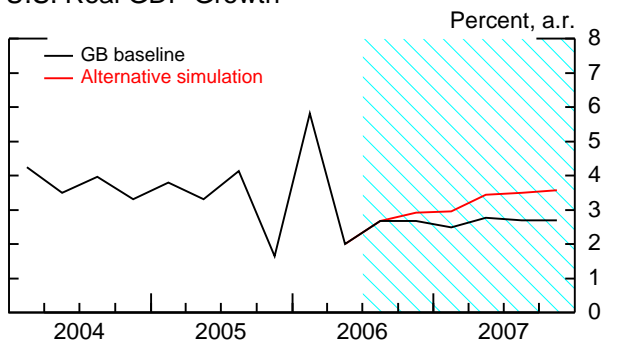
Core PCE Prices



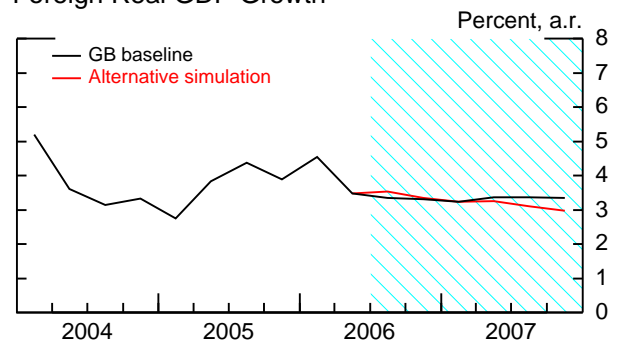
Federal Funds Rate



U.S. Real GDP Growth



Foreign Real GDP Growth



Class II FOMC - Restricted (FR)

Exhibit 16 -- Last Exhibit

**ECONOMIC PROJECTIONS FOR 2006**

<b>FOMC</b>			
	Range	Central Tendency	Staff
-----Percentage change, Q4 to Q4-----			
Nominal GDP February 2006	5½ to 6½ (5¼ to 6½)	6 to 6¼ (5½ to 6)	6.1 (6.0)
Real GDP February 2006	3 to 3¾ (3¼ to 4)	3¼ to 3½ (About 3½)	3.3 (3.7)
Core PCE Prices February 2006	2¼ to 3 (1¾ to 2½)	2¼ to 2½ (About 2)	2.4 (2.2)
-----Average level, Q4, percent-----			
Unemployment rate February 2006	4½ to 5 (4½ to 5)	4¾ to 5 (4¾ to 5)	4.9 (5.0)

Central tendencies calculated by dropping high and low three from ranges.

**ECONOMIC PROJECTIONS FOR 2007**

<b>FOMC</b>			
	Range	Central Tendency	Staff
-----Percentage change, Q4 to Q4-----			
Nominal GDP February 2006	4¾ to 6 (5 to 6)	5 to 5½ (5 to 5¾)	5.0 (5.0)
Real GDP February 2006	2½ to 3¼ (3 to 4)	3 to 3¼ (3 to 3½)	2.7 (3.0)
Core PCE Prices February 2006	2 to 2¼ (1¾ to 2)	2 to 2¼ (1¾ to 2)	2.2 (1.8)
-----Average level, Q4, percent-----			
Unemployment rate February 2006	4¼ to 5¼ (4½ to 5)	4¾ to 5 (4¾ to 5)	5.2 (5.1)

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

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

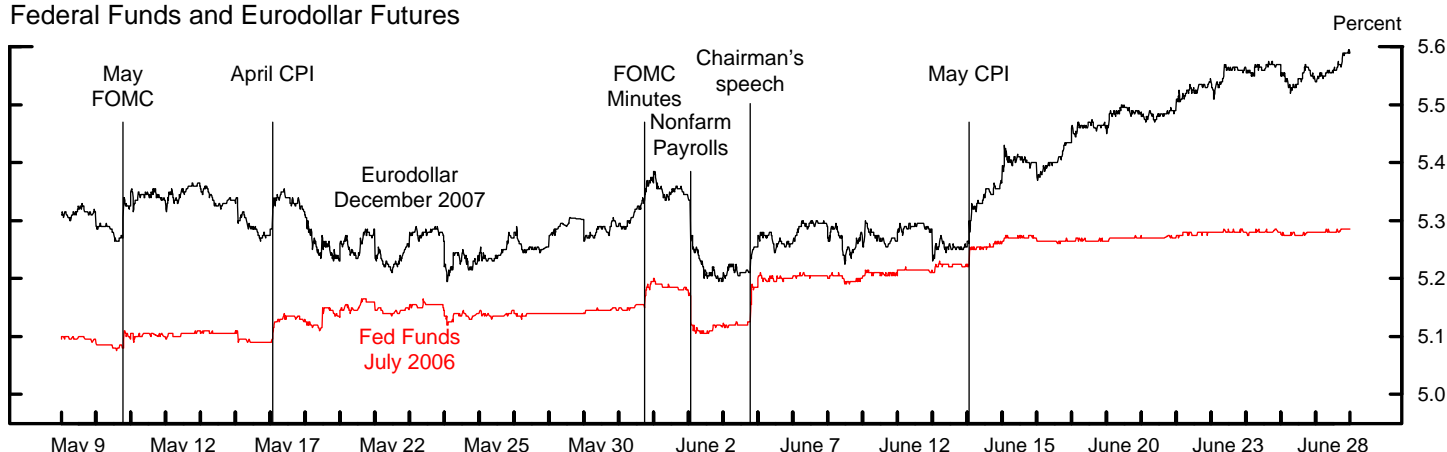
*Material for*

**FOMC Briefing on Monetary Policy Alternatives**

**Vincent R. Reinhart**  
**June 29, 2006**

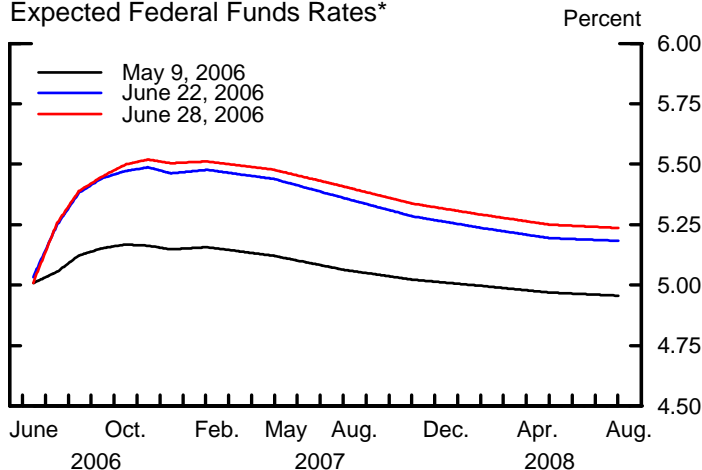
Exhibit 1: Policy Expectations and Asset Prices

Federal Funds and Eurodollar Futures



Note. 5-minute intervals.

Expected Federal Funds Rates\*



\*Estimates from federal funds and Eurodollar futures, with an allowance for term premiums and other adjustments.

Reasons for Inversion of Futures Curve

- Optimal response to inflation bulge
- Nonlinearity in the housing market
- Policy mistake

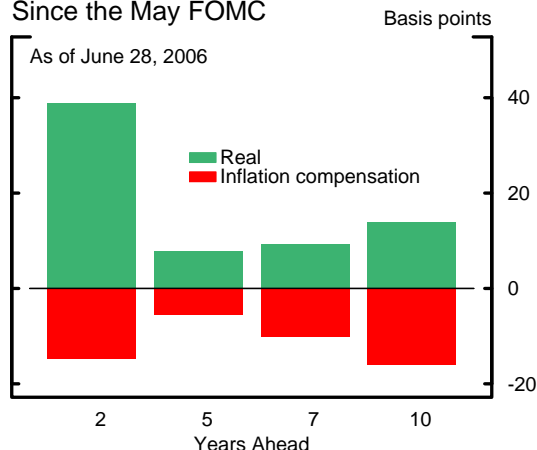
Selected Financial Market Quotes\*

	June 28, 2006	Change from May 9, 2006	Change from June 22, 2006
Nominal	-percent-	-basis points-	-basis points-
1. Two-Year	5.32	32	6
2. Ten-Year	5.32	13	5
Inflation Compensation**	-percent-	-basis points-	-basis points-
3. Five-Year	2.53	-11	-1
4. Ten-Year	2.59	-10	0
Stock Prices	-level-	-percent-	-percent-
5. S&P 500	1246.00	-6	0
6. Russell 2000	688.04	-12	0

\* Yields and inflation compensation derived from smoothed yield curves.

\*\* Carry-adjusted

Change in Implied One-Year Forward Rates Since the May FOMC



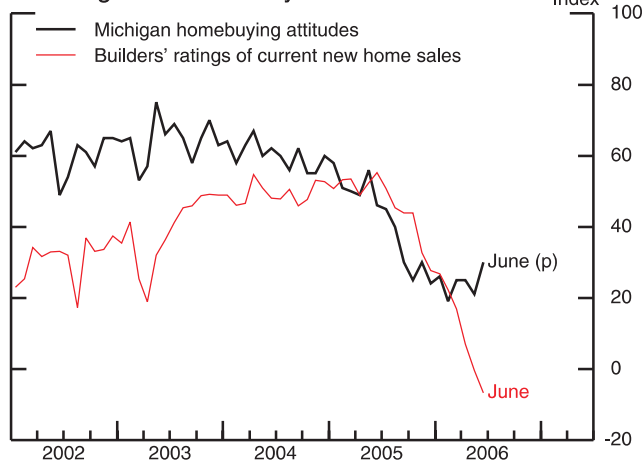
Note. Forward rates are the one-year rates maturing at the end of the year shown on the horizontal axis as implied by smoothed yield curves fitted to nominal and indexed Treasury securities.

### Exhibit 2: The Case for Pausing

#### Case for Alternative A

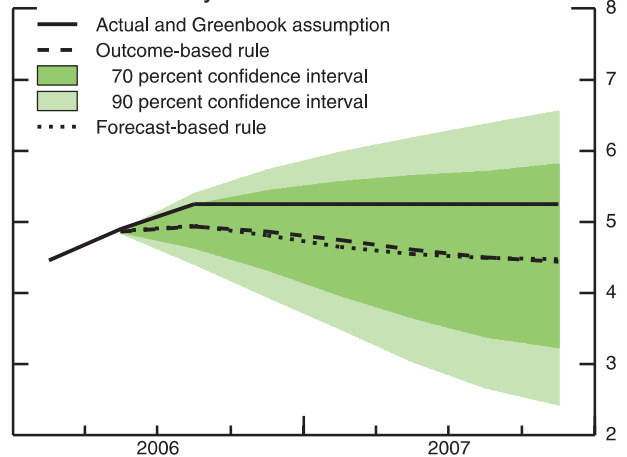
- Weak data on spending
- Concern about housing slump
- Cumulative tightening that has already occurred may be sufficient, given lags in policy.
- Consistent with a number of policy rules

#### Housing Market Surveys



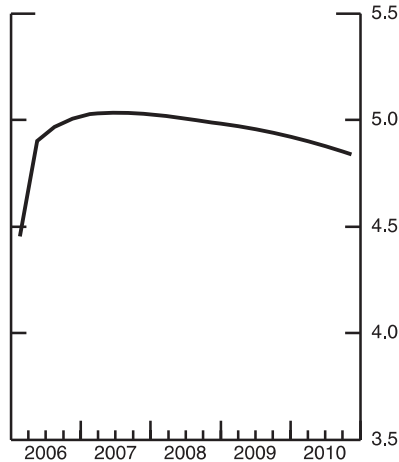
Note. Builders' ratings are seasonally adjusted by Board staff.  
Sources: Michigan Survey (Homebuying attitudes); National Association of Home Builders (Builders' ratings).

#### Estimated Policy Rules

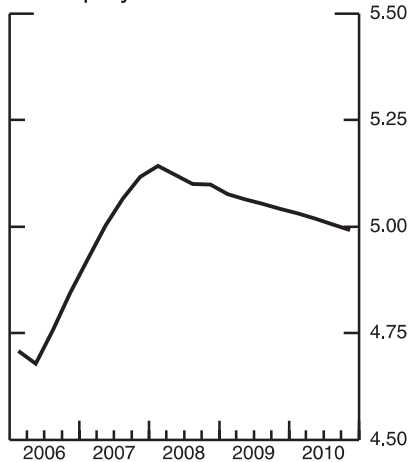


#### Optimal Policy with 2 Percent Inflation Goal

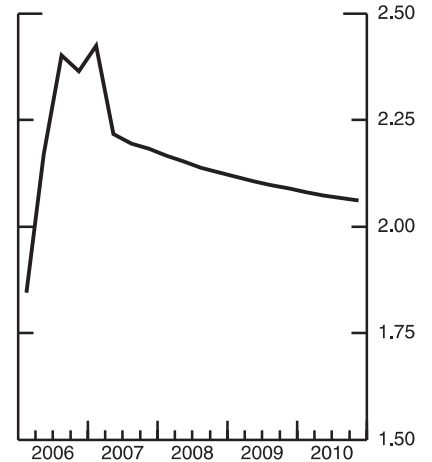
##### Federal Funds Rate



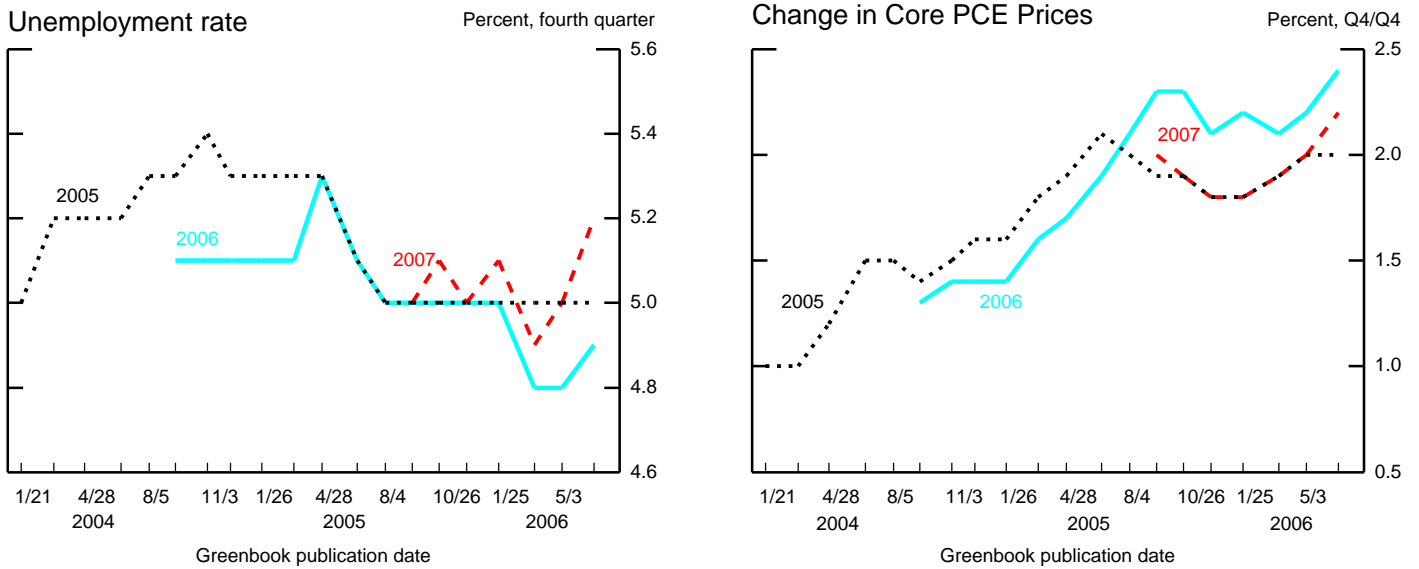
##### Unemployment Rate



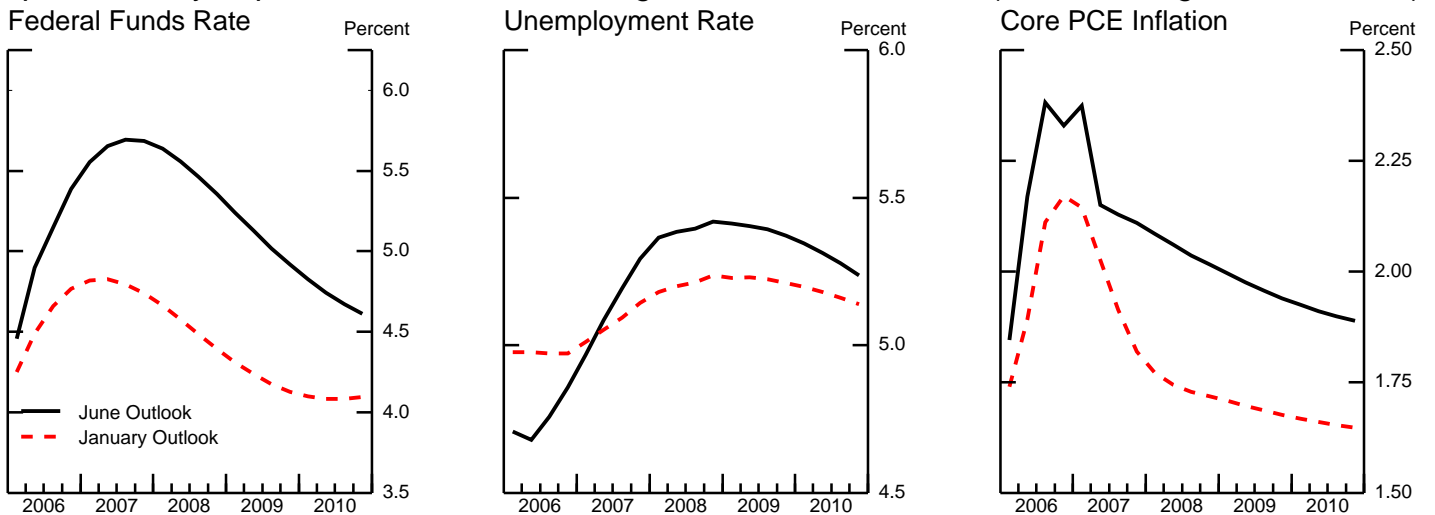
##### Core PCE Inflation



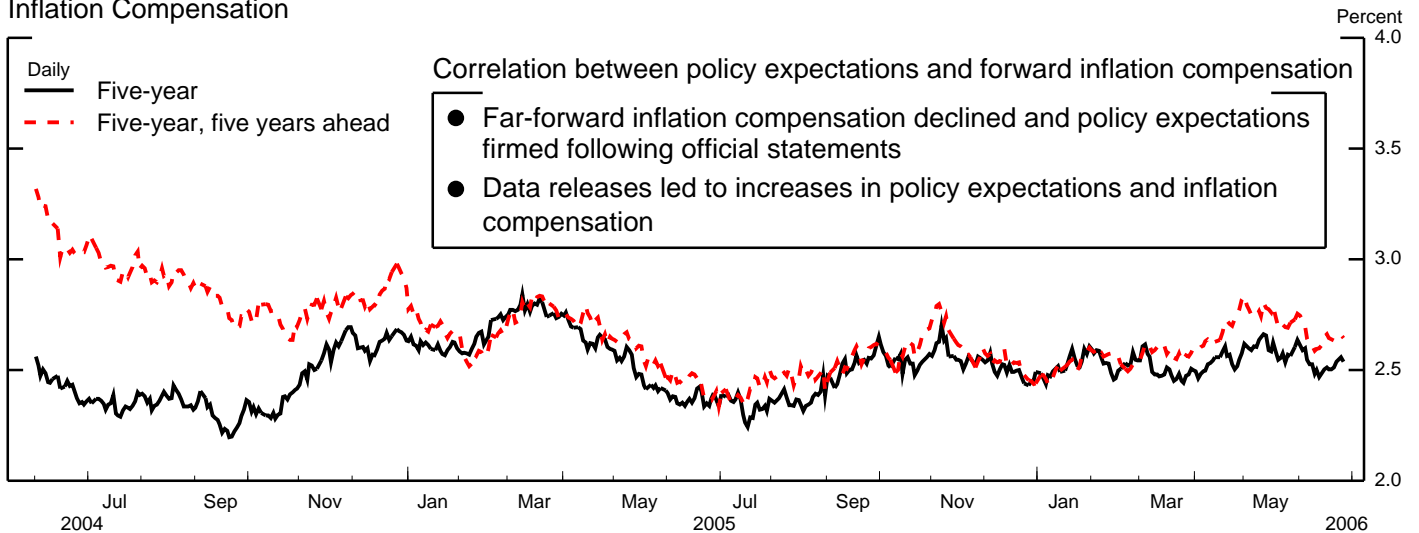
### Exhibit 3: The Case for Tightening Evolution of Staff Forecast



### Optimal Policy Implications of Recent Changes in the Staff Outlook (Inflation Target: 1.5 Percent)

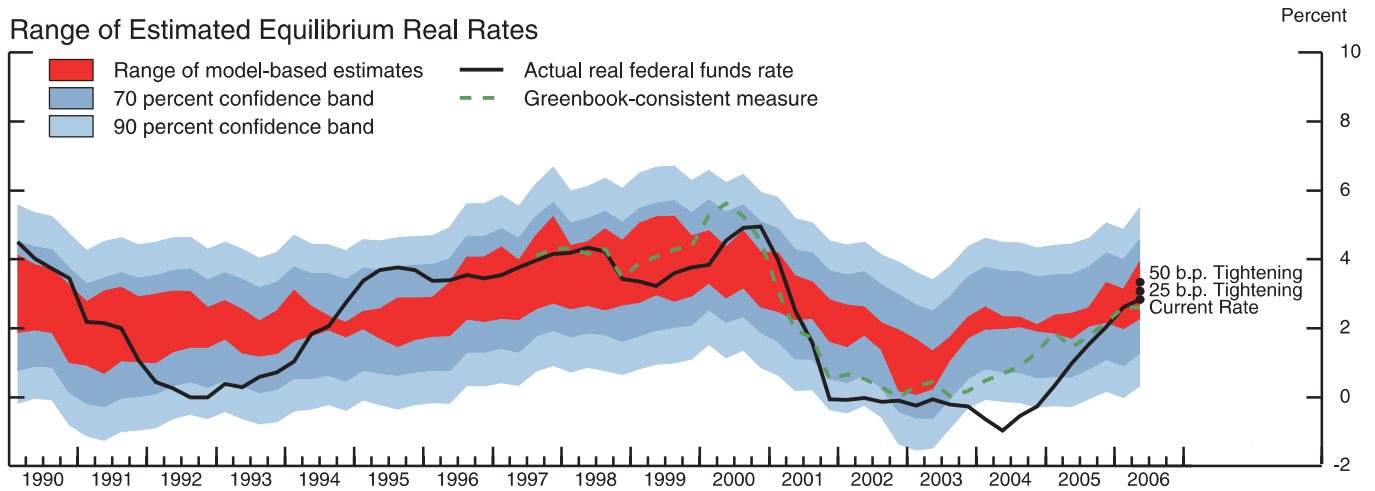


### Inflation Compensation



### Exhibit 4: More Tightening to Come?

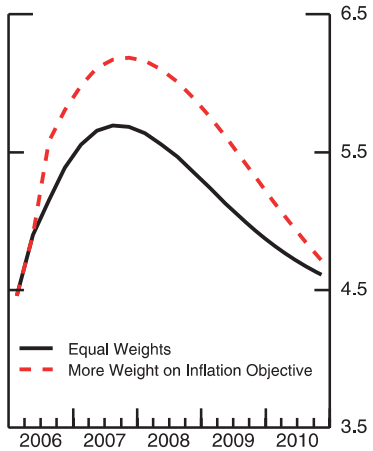
Range of Estimated Equilibrium Real Rates



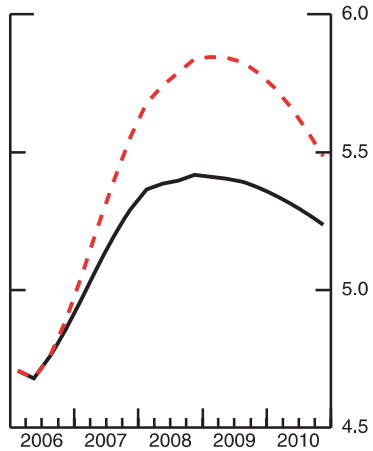
Explanatory notes are provided after Chart 7 of the Bluebook.

Placing Greater Weights on the Inflation Objective (Inflation Target: 1.5 Percent)

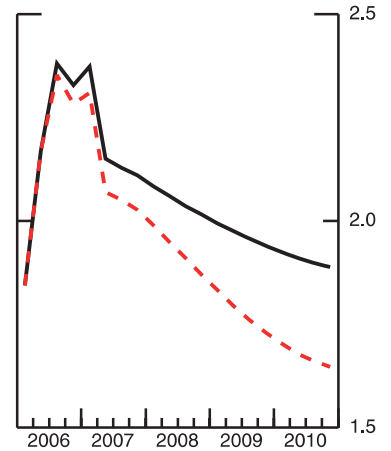
Federal Funds Rate



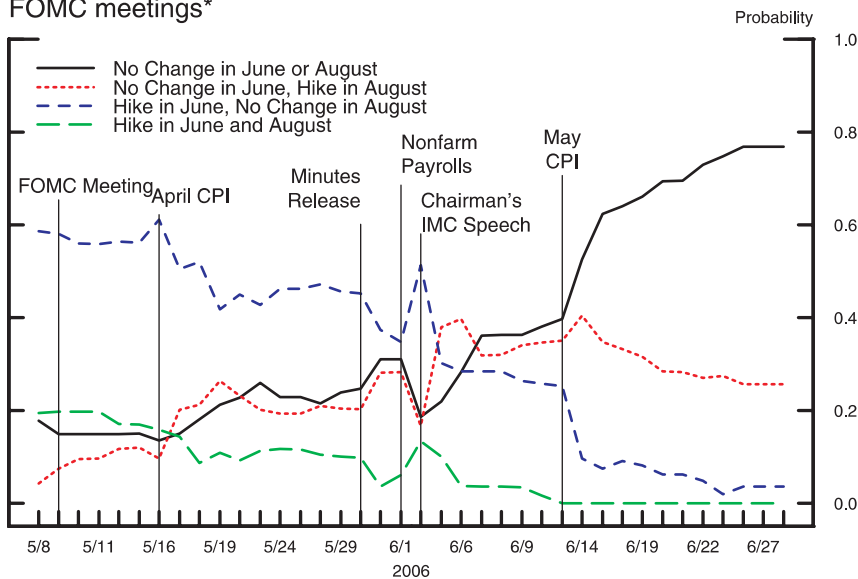
Civilian Unemployment Rate



Core PCE Inflation



Probabilities of Alternative Policy Paths over June and August FOMC meetings\*



- Markets have become convinced of a quarter-point rate hike today.
- Odds of a further rate hike in August have moved up to about 70 percent.

\*Calculated from federal funds futures and options prices, with term premium and other adjustments

Table 1: Alternative Language for the June FOMC Announcement

	May FOMC	Alternative A	Alternative B	Alternative C
<b>Policy Decision</b>	1. The Federal Open Market Committee decided today to raise its target for the federal funds rate by 25 basis points to 5 percent.	The Federal Open Market Committee decided today to leave its target for the federal funds rate <b>unchanged</b> at 5 percent.	The Federal Open Market Committee decided today to raise its target for the federal funds rate by 25 basis points to <b>5¼</b> percent.	The Federal Open Market Committee decided today to raise its target for the federal funds rate by <b>50 basis points</b> to <b>5½</b> percent.
<b>Rationale</b>	2. Economic growth has been quite strong so far this year. The Committee sees growth as likely to moderate to a more sustainable pace, partly reflecting a gradual cooling of the housing market and the lagged effects of increases in interest rates and energy prices.	<b>Recent indicators suggest that economic growth is moderating noticeably from its quite strong pace earlier this year, partly reflecting a cooling of the housing market and the lagged effects of increases in interest rates and energy prices.</b>	<b>Recent indicators suggest that economic growth is moderating from its quite strong pace earlier this year, partly reflecting a gradual cooling of the housing market and the lagged effects of increases in interest rates and energy prices.</b>	<b>Recent indicators suggest that economic growth is moderating from its quite strong pace earlier this year, but the level of resource utilization remains relatively high.</b>
	3. As yet, the run-up in the prices of energy and other commodities appears to have had only a modest effect on core inflation, ongoing productivity gains have helped to hold the growth of unit labor costs in check, and inflation expectations remain contained. Still, possible increases in resource utilization, in combination with the elevated prices of energy and other commodities, have the potential to add to inflation pressures.	<b>The Committee views the pickup in core inflation this spring as unwelcome but likely to be transitory. Ongoing productivity gains, anchored inflation expectations, and moderate economic growth should reduce inflation in coming quarters.</b>	<b>Readings on core inflation have been elevated in recent months. Ongoing productivity gains have held down the rise in unit labor costs, and inflation expectations remain contained. However, the high levels of resource utilization and of the prices of energy and other commodities have the potential to sustain inflation pressures.</b>	<b>Ongoing productivity gains and contained inflation expectations should restrain inflation going forward. However, recent readings on core inflation have been elevated, which the Committee views as unwelcome.</b>
<b>Assessment of Risk</b>	4. The Committee judges that some further policy firming may yet be needed to address inflation risks but emphasizes that the extent and timing of any such firming will depend importantly on the evolution of the economic outlook as implied by incoming information.	<b>The Committee judges that the risks to the attainment of price stability remain tilted to the upside but recognizes that the moderation in the growth of aggregate demand, along with other forces, should work to contain inflation going forward. While the Committee judges that some further policy firming may yet be needed to address inflation risks, considerable uncertainty attends the outlook, making it prudent to await the accumulation of additional information.</b>	<b>Although the moderation in the growth of aggregate demand should help to limit inflation pressures over time, the Committee judges that some inflation risks remain. The extent and timing of any additional firming that may be needed to address these risks will depend on the evolution of the outlook for both inflation and economic growth, as determined by incoming information.</b>	<b>In order to foster price stability and sustainable economic growth, the Committee seeks a medium-term decline in core inflation from its recent elevated levels. The Committee judges that some further policy firming may yet be needed to accomplish this outcome. The extent and timing of any such firming will depend importantly on the evolution of the economic outlook as implied by incoming information.</b>
	5. In any event, the Committee will respond to changes in economic prospects as needed to support the attainment of its objectives.	<b>[None.]</b>	<b>In any event, the Committee will respond to changes in economic prospects as needed to support the attainment of its objectives.</b>	<b>[None.]</b>