The Federal Reserve Board

Meeting of the Federal Open Market Committee
May 4, 2004 Presentation Materials -- Text Version

Presentation Materials (977 KB PDF)

Pages 102 to 112 of the Transcript

Appendix 1: Materials used by Mr. Kos

Page 1

Top panel

Title: Current U.S. 3-Month Deposit Rates and Rates Implied by Traded Forward Rate Agreements
Series: 3-month USD Libor, USD 3-month forward rate agreement, USD 6-month forward rate agreement, USD 9-month forward rate agreement
Horizon: February 2, 2004 - April 30, 2004
Description: Forward rate agreements increase.

Middle panel

Title: Target Federal Funds Rate and Treasury 2-Year Note
Series: Yield for 2-year Treasury note and Target Federal Funds rate
Horizon: January 1, 2002 - April 30, 2004
Description: Yield on 2-year Treasury note increases.

Bottom-left panel

Title: Yield Spread between 2- and 10-Year Notes
Series: Spread between Treasury 2- and 10-year notes
Horizon: February 2, 2004 - April 30, 2004
Description: Treasury yield curve flattens.

Bottom-right panel

Title: Breakeven Inflation Rates on TIPS
Series: 10-year and 5-year TIPS breakeven rates
Horizon: February 2, 2004 - April 30, 2004
Description: TIPS breakeven rates decline.

Source: Barclays

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Top panel

Title: Overnight Repo Rate for 2-Year Treasury Note (on-the-run)
Series: Overnight repo rate for on-the-run 2-year Treasury note
Horizon: February 2, 2004 - April 30, 2004
Description: Overnight repo rate for 2-year note increases sharply.

Middle-left panel

Title: 10-Year Treasury Yield and Mortgage Market Duration
Series: 10-year Treasury yield and duration of 30-year conventional MBS index
Horizon: April 30, 2003 - April 30, 2004
Description: 10-year Treasury yield and duration of 30-year MBS increase.

Source: Lehman Brothers

Middle-right panel

Title: Mortgage Spread to Treasuries
Series: OAS of 30-year conventional MBS index
Horizon: April 30, 2003 - April 30, 2004
Description: Mortgage spread widens moderately.

Source: Lehman Brothers

Bottom-left panel

Title: Investment Grade Corporate Debt Spread
Series: Investment grade corporate debt index OAS
Horizon: December 1, 2003 - April 30, 2004
Description: Investment grade corporate debt spread narrows.

Source: Lehman Brothers

Bottom-right panel

Title: High Yield and EMBI+ Spreads
Series: EMBI Plus Index and high yield corporate debt index OAS
Horizon: December 1, 2003 - April 30, 2004
Description: EMBI+ spread widens while high yield corporate debt spread narrows.

Source: Merrill Lynch, JP Morgan

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Top panel

Title: Select Foreign Currencies Versus U.S. Dollar
Series: U.S. Dollar versus Australian Dollar, British Pound, Canadian Dollar, New Zealand Dollar and Euro
Horizon: February 2, 2004 - April 30, 2004
Description: U.S. dollar appreciates versus foreign currencies.

Middle-left panel

Title: Interest Rates Implied by Eurodollar and Euribor Futures Contracts
Series: Implied Eurodollar and Euribor futures rates
Horizon: April 1, 2004
Description: Implied rates for Eurodollar and Euribor futures.

Middle-right panel

Title: Interest Rates Implied by Eurodollar and Euribor Futures Contracts
Series: Implied Eurodollar and Euribor futures rates
Horizon: April 30, 2004
Description: Implied rates for Eurodollar and Euribor futures.

Bottom panel

Title: Interest Rate Differentials: Select 2-Year Gov. Yields Less U.S. Treasuries
Series: Sovereign debt yield spreads to 2-year Treasury note yield for Canada, Germany, New Zealand, Australia and the United Kingdom
Horizon: February 2, 2004 - April 30, 2004
Description: Sovereign debt 2-year yield spreads to Treasuries decline.

Page 4

Top-left panel

Title: U.S. Dollar Against Japanese Yen
Series: Japanese Yen per U.S. Dollar
Horizon: February 2, 2004 - April 30, 2004
Description: U.S. dollar appreciates versus the yen.

Top-right panel

Title: 10-Year JGB Yield
Series: 10-year Japanese government bond yield
Horizon: February 2, 2004 - April 30, 2004
Description: 10-year Japanese government bond yield increases.

Middle-left panel

Title: Select Japanese Equity Sub-Indices
Series: Japanese Topix Index, Topix Real Estate Sub-index, Topix Construction Sub-index, Topix Retail Sub-index
Horizon: May 1, 2003 - April 30, 2004
Description: Topix real estate sub-index increases sharply while Topix and other sub-indices increase modestly.

Middle-right panel

Title: Large Japanese Bank Stocks
Series: Equity prices for Mizuho, UFJ, Mitsubishi Tokyo, Sumitomo, and the Topix Index
Horizon: May 1, 2003 - April 30, 2004
Description: Large Japanese bank equity prices increase.

Bottom panel

Title: Select South American and Asian Equity Indices
Series: Levels of Mexican Bolsa, Korean Kospi, Taiwan 50, Brazilian Bovespa, and Bangkok SET
Horizon: January 1, 2004 - April 30, 2004
Description: Select South American and Asian equity indices decline.

Appendix 2: Materials used by Mr. Reinhart

Exhibit 1
Financial Market Conditions

Exhibit 1 includes charts that provide information on the expected future path of the federal funds rate as well as certain financial market data using 6 panels.

Top panel
Expected One-year Ahead Federal Funds Rate*

A line graph shows the one-year ahead federal funds rate inferred from eurodollar futures adjusted for term premiums. After having been flat to trending lower during the previous two intermeeting periods, market expectations for the federal funds rate that will prevail one-year ahead increased by 85 basis points over the period since the March 2004 FOMC meeting to more than 2.4 percent.

* Estimate based on one-year ahead eurodollar futures rates adjusted for term premiums. Return to text

Middle-left panel
Expected Federal Funds Rates*

A line graph displays the expected federal funds rate path at two different points in time. The lower dotted line reflects the expected federal funds path as of March 15, 2004, while the upper solid line indicates the path as of May 3, 2004. The former line is flat at 1 percent until the end of 2004 before sloping up and reaching just under 3 percent in mid-2006 while the latter line starts at 1 percent and begins sloping up after only one month and reaches 4 percent in mid-2006. The difference between the lines emphasizes a jump in interest rate expectations since the previous meeting and the reduced time until the line slopes up indicates that market participants believe that the policy tightening will start sooner than they had before.

* Estimates from federal funds and eurodollar futures rates. Return to text

Middle-right panel
Implied Distribution of the Federal Funds Rate About Six Months Ahead*

A bar graph shows the implied distribution of the fed funds rate six months ahead plotted as of March 15, 2004 and May 3, 2004. On March 15, the distribution was centered at 1 percent and only small weight was placed on a fund rate greater or less than 1 percent by more than 25 basis points. During the intermeeting period, the distribution shifted noticeably to the right, again reflecting elevated expectations for the fed funds rate. The distribution for May 3 is centered between 1.5 and 1.75 percent with some weight placed on the funds rate being higher than 1.75 percent by October.

* Based on the distribution of the three-month eurodollar rate five months ahead (adjusted for a term premium), as implied by options on eurodollar futures contracts. Return to text

Bottom-left panel
Real Five-year Corporate Yield*

The line plotted in the chart further illustrates the effect of the upward revision to the interest rate expectations. Despite some narrowing of corporate risks spreads, an average of real corporate yields (weighted by capital spending) gained 60 basis points since the March FOMC meeting.

* Nominal five-year investment and speculative-grade yields weighted by capital expenditure shares less the five-year inflation compensation from TIIS. Return to text

Bottom-center panel
Major Currencies Index

A line graph of the major currencies index. Indicating an appreciation of the dollar, the index continued the upward trend that began in early 2004 and increased during the intermeeting period from around 102 to above 104.

Index: Dec. 31, 2003 = 100

Bottom-right panel
Wilshire 5000 Index

A line graph for the Wilshire 5000 Index. The index moved in a modest range over the intermeeting period but, as of May 3, was little changed on net from its level as of the March FOMC.

Index: Dec. 31, 2003 = 100

Exhibit 2

Top panel
Alternatives in the Bluebook

A --Worry that market participants have built in excessively prompt and aggressive tightening
--The associated firming in financial conditions threatens outcomes in 2005
B --View near-term futures rates as an accurate characterization of policy expectations
--Desire to emphasize that policy tightening will be gradual to limit the chance of an overreaction
C --Interpret the tightening of financial conditions as the initial signs of building pressures on inflation
or increases in equilibrium real interest rates
--Want to be seen as preemptive against those potential pressures

The Case for Alternative A

Middle-left panel
Output Gap

A bar graph shows the staff estimates of the output gap over the next seven quarters through the fourth quarter of 2005. In the staff outlook, substantial resources go unused over the next one and three-quarters years, with the output gap diminishing from the current level of 1.50 percent but lingering at three-quarters of a percentage point in the final quarter of 2005.

Top middle-right panel

Histogram of Monthly Nonfarm Payroll Changes

A histogram of monthly nonfarm payroll changes since the early 1980s. The histogram indicates that payroll changes are quite volatile as a 70 percentile range of the monthly change in payroll employment spans observations that differ by as much as 300,000 units.

Bottom middle-right panel
Histogram of Monthly Core CPI Changes

A histogram of monthly core CPI changes since the early 1980s. The distribution of core CPI changes is much tighter than the nonfarm payroll distribution as a 70 percentile range for the change in core CPI spans observations that differ only by three-tenths of a percentage point at a monthly rate.

Bottom-left panel
Expected Federal Funds Paths in 2002*

A line graph of the actual federal funds rate between January 2002 and March 2003 and six lines representing the implied paths for the federal funds rate at six points in time. During the first half of 2002, the implied paths indicated that market participants had been pricing in considerable tightening in monetary policy. However, given economic data and corporate malfeasance, by the second half of 2002, market participants had stopped expecting policy tightening and started pricing in a policy easing. In November 2002, the actual federal funds rate was cut from 1.75 percent, where it had been since the beginning of 2002, to 1.25 percent.

* Estimated from federal funds and eurodollar futures, with an allowance for term premia and other adjustments. Return to text

Bottom-right panel
Evolution of Blue Chip Forecasts of 2002Q4 Unemployment Rate

A line graph of blue chip forecasts of the unemployment rate expected in the fourth quarter of 2002. The consensus expectation for the unemployment rate rose quickly in 2002 from 5.5 percent in the April 2002 survey to 6.0 percent in the August 2002 survey before retreating slightly to 5.8 percent in the November 2002 survey.

Exhibit 3
The Case for Alternative B

Top panel

- Find the staff forecast plausible and acceptable
- Desire to regain flexibility
- Strengthen the perception that policy can likely be firmed gradually
- View the cost of delaying tightening as small relative to the benefit

Middle-left panel
Unemployment Rate Distribution

A bar graph plots the distributions of three-quarters-ahead Greenbook forecast errors for the unemployment rate, centered on the forecasts for the fourth quarter of 2004 of 5.4 percent. Based on historical errors, the distribution is notably spread out and suggests a wide range of outcomes are possible though most of the weight of the distribution is between 4.9 percent and 5.9 percent.

Middle-right panel
Core PCE Inflation Distribution

A bar graph displays the distribution of three-quarters-ahead Greenbook forecast errors for four-quarter core PCE inflation centered on the forecast for the fourth quarter of 2004 of 1.4 percent. Based on historical errors, the distribution is again spread out and suggests that a wide range of outcomes are possible.

Bottom-left panel
Expected Cumulative First-year Tightening

	Basis Points
1. Greenbook	100
2. Federal Funds Futures	195
Memo 3. Average of Actual First-year Tightening in 1988, 1994, 1999 Episodes	267

Bottom-right panel
Inflation Compensation

A line graph of inflation compensation at the five-year and five- to ten-years ahead horizons. The graph displays a recent rise in inflation expectations in both the five-year and five- to ten-year ahead lines which illustrates the potential costs associated with delaying tightening and conveying a sense of gradualism.

Exhibit 4
The Case for Alternative C

Top panel

- Pricing power seems to have returned
- Policy is quite accommodative
- Not convinced that the financial market turbulence of 1994 will repeat itself

Middle-left panel
Actual Real Federal Funds Rate and Range of Estimated Equilibrium Real Rates

A line graph provides information on the equilibrium real federal funds rate. The chart depicts the actual real federal funds rate starting in the first quarter of 1990. The historical average real federal funds rate from 1961:Q4 to 2003:Q4 of 2.61 percent is plotted as a dotted horizontal line. The staff estimates of the equilibrium federal funds rate consist of a shaded region bounded by the maximum and minimum values of four estimates of the equilibrium rate for each quarter. The real federal funds rate has been slipping farther into negative territory and below the range of estimates of the equilibrium rate suggesting that policy has been more accommodative of late.

Note: The shaded range represents the maximum and the minimum values each quarter of four estimates of the equilibrium real federal funds rate based on a statistical filter and the FRB/US model. Real federal funds rates employ a four-quarter moving average of core PCE inflation as a proxy for inflation expectations, with the staff projection used for 2004:Q1 and 2004:Q2.

Middle-right panel

Core PCE Inflation

A bar graph shows core PCE inflation for the second half of 2003 and Greenbook forecasts of PCE inflation for the first and second halves of 2004 as well as 2005. The baseline Greenbook projection is that core PCE inflation will increase by approximately one-half of a percentage point in the first half of 2004 to a bit above 1.5 percent before falling back to about 1.2 percent in the second half of 2004 and holding at that rate in 2005. However, if a high NAIRU is assumed, core PCE inflation is predicted to rise to about 1.7 percent in the first half of 2004 and remain at that rate in the second half of 2004 and in 2005.

Bottom-left panel
Actual and Expected Federal Funds Rates

A line graph plots the actual and expected federal funds rates during the 1990-1995 period with the 2001-2004 period to allow comparisons of the two periods. During both episodes, the federal funds rate was gradually lowered and remained low for a number of years. During the 1990-1995 period, the federal funds rate was increased in 1994 much more aggressively than expected. Unlike the early 1990s, however, market participants are expecting a sharper increase in the federal funds rate from the midpoint of 2004 forward.

Expectations implied by federal funds and eurodollar futures as of Feb. 3, 1994 and May 3, 2004.

Bottom-right panel
Evolution of Blue Chip Forecasts of 1994Q4 Unemployment Rate

A line graph illustrates the evolution of the blue chip forecast consensus for the unemployment rate in the fourth quarter of 1994. The downward drift of expectations regarding the unemployment rate during 1994 from 6.3 percent to 5.8 percent was attributable to rapid improvement in the labor market.

Table 1: FOMC Statement Alternatives for the May Bluebook

	March FOMC	Alternative A	Alternative B	Alternative C
Policy Decision	1. The Federal Open Market Committee decided today to keep its target for the federal funds rate at 1 percent.	Unchanged	Unchanged	The Federal Open Market Committee decided today to raise its target for the federal funds rate to 1-1/4 percent.
Rationale	2. The Committee continues to believe that an accommodative stance of monetary policy, coupled with robust underlying growth in productivity, is providing important ongoing support to economic activity.	Unchanged	Unchanged	The Committee continues to believe that robust underlying growth in productivity is providing important ongoing support to economic activity.
	3. The evidence accumulated over the intermeeting period	The evidence accumulated over the intermeeting period	The evidence accumulated over the intermeeting period	The evidence accumulated over the intermeeting period

	March FOMC	Alternative A	Alternative B	Alternative C
	indicates that output is continuing to expand at a solid pace. Although job losses have slowed, new hiring has lagged.	indicates that output is continuing to expand at a solid rate and hiring appears to have picked up.	indicates that output is continuing to expand at a solid rate and hiring appears to have picked up.	indicates that output is continuing to expand at a solid rate and hiring appears to have picked up.
	4. Increases in core consumer prices are muted and expected to remain low.	Although incoming inflation data have moved somewhat higher, core inflation is expected to remain low.	**Although incoming inflation data have moved somewhat higher, long-term inflation expectations appear to have remained well-contained.**	**Long-term inflation expectations appear to have remained well-contained, although incoming inflation data have moved somewhat higher.**
	5. [None]	[None]	[None]	Against this backdrop, the Committee felt that some reduction in the degree of monetary accommodation was desirable to promote price stability and thus help sustain the economic expansion.
Assessment of Risks	6. The Committee perceives that the upside and downside risks to the attainment of sustainable growth for the next few quarters are roughly equal.	Unchanged	Unchanged	With this policy action, the Committee perceives that the upside and downside risks to the attainment of sustainable growth for the next few quarters are roughly equal.
	7. The probability of an unwelcome fall in inflation has diminished in recent months and now appears almost equal to that of a rise in inflation.	**Similarly, the risks to the goal of price stability have moved into balance.**	**Similarly, the risks to the goal of price stability have moved into balance.**	**Similarly, the risks to the goal of price stability have moved into balance.**
	8. With inflation quite low and resource use slack, the Committee believes that it can be patient in removing its policy accommodation.	Nonetheless, with inflation low and resource use slack, the Committee believes that it can be patient in removing its policy accommodation.	**At this juncture, with inflation low and resource use slack, the Committee believes that policy accommodation can be removed at a pace that is likely to be measured.**	Even following today's action, the Committee judges that the stance of policy is quite accommodative. However, **with inflation low and resource use slack, the Committee believes that policy accommodation can be removed at a pace that is likely to be measured.**

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