The Federal Reserve Board

Meeting of the Federal Open Market Committee
May 10, 2006 Presentation Materials -- Text Version

Presentation Materials (PDF)

Pages 109 to 120 of the Transcript

Appendix 1: Materials used by Mr. Kos

Page 1

Top and middle panels

Title: Current 3-Month Deposit Rates and Rates Implied by Traded Forward Rate Agreements
Series: US dollar, euro, and Japanese yen Libor Fixing, 3M Forward, 6M Forward, and 9M Forward Rates
Horizon: January 2, 2006 through May 8, 2006
Description: U.S., euro, and Japanese yen forward rates rose steadily over the period shown.

Bottom panel

Title: 2- and 10-Year Treasury Yields and Target Fed Funds Rate
Series: Target federal funds rate, yields on benchmark 2- and 10- year U.S. Treasury securities (daily)
Horizon: January 2, 2006 through May 8, 2006
Description: Short and intermediate Treasury yields rose as the target federal funds rate increased.

Page 2

Top-left panel

Title: U.S. 10-Year Real Yield
Series: Benchmark U.S. 10-Year real yield
Horizon: January 2, 2006 through May 8, 2006
Description: 10-year real yields have risen approximately 40 basis points since the beginning of 2006.

Top-right panel

Title: U.S. Breakeven Inflation Rates
Series: On the run U.S. 10-Year breakeven and 5-Year forward 5-Year breakeven inflation rates
Horizon: January 2, 2006 through May 8, 2006
Description: 10-Year and 5-Year forward 5-Year breakeven inflation rates have risen approximately 40 basis points since the beginning of 2006.

Middle-left panel

Title: Change in 10-Year Real Yields since January 2
Series: Change in France, U.K. and Japan 10-Year real yields
Horizon: January 2, 2006 through May 8, 2006
Description: Chart shows the cumulative basis point change in real yields since the beginning of 2006. French real yields increased by approximately 53 basis points. U.K real yields increased almost 40 basis points, while Japanese real yields moved up by 20 basis points.

Middle-right panel

Title: Change in 10-Year Breakeven Inflation Rates since January 2
Series: Change in France, U.K. and Japan 10-Year breakeven inflation rates
Horizon: January 2, 2006 through May 8, 2006
Description: Chart shows the cumulative basis point change in 10-year breakeven inflation rates since the beginning of 2006. Japanese and U.K. breakevens rose approximately 20 basis points while French breakevens rose about 15 basis points.

Bottom-left panel

Title: Select Metals Prices
Series: Zinc and copper 3-month futures prices and silver, gold, and platinum spot prices, indexed to 100 on 1/2/2006
Horizon: January 2, 2006 through May 8, 2006
Description: Prices of these metals rose over the period. Zinc and copper prices increased the most to approximately 180 percent and 175 percent, respectively.

Bottom-right panel

Title: Front Month Energy Futures Prices
Series: Gasoline, crude oil, heating oil, and natural gas 3-month futures prices, indexed to 100 on 1/2/2006
Horizon: January 2, 2006 through May 8, 2006
Description: Gasoline, crude oil and heating oil futures prices rose between 10 and 20 percent. Natural gas was the only energy future to see a price decline, falling by 40 percent.

Page 3

Top-left panel

Title: Euro - Dollar
Series: Euro currency performance in U.S. dollars per euro. Date of Swedish Riksbank announcement of foreign exchange reserve diversification on 4/21/06 is marked.
Horizon: January 2, 2006 through May 8, 2006
Description: The euro has appreciated against the dollar from 1.18 to 1.27 dollars per euro since the beginning of 2006.

Top-right panel

Title: Dollar - Yen
Series: Yen currency performance in yen per dollar, inverted scale

Horizon: January 2, 2006 through May 8, 2006
Description: The yen appreciated against the dollar, from approximately 119 to 111 yen per dollar.

Middle-left panel

Title: 1-Month Risk Reversals
Series: Yen-dollar and euro-dollar 1-month risk reversals
Horizon: January 2, 2006 through May 8, 2006
Description: Both yen-dollar and euro-dollar risk reversals rose, showing an increased premium for dollar puts versus dollar calls.

Source: UBS

Middle-right panel

Title: Interest Rate Differentials and Euro-Dollar
Series: Euro-dollar and December 2006 eurodollar less euribor futures rate, inverted scale
Horizon: January 2, 2006 through May 8, 2006
Description: Euro-dollar has risen since the beginning of 2006. The spread between the December 2006 eurodollar and euribor futures rates has ranged between approximately 1.6 and 2.0 percent.

Bottom panel

Title: Select Foreign Currency Appreciation Against the Dollar
Series: Selected currencies from left to right: currencies of Poland, Australia, Hungary, Brazil, Norway, Canada, South Korea, New Zealand, Taiwan, Mexico, and Iceland
Horizon: March 28, 2006 through May 8, 2006
Description: Every selected currency has appreciated against the dollar over the period shown. Among the countries shown, currencies of Poland and Australia appreciated against the dollar the most, at almost 10 percent.

Page 4

Top panel

Title: Required Operating Balances and Fed Funds Target Rate
Series: The Fed Funds Target Rate and Required Operating Balances. Required operating balances include: reserve requirements plus clearing balances minus applied vault cash minus as of adjustments.
Horizon: January 1, 2001 through May 3, 2006
Description: Since the summer of 2004, required operating balances have gradually declined from about $21 billion to about $15 billion while the fed funds target has risen from 1 percent to about 5 percent.

Bottom panel
New FedTrade Auction System

- Used for all open market operations: securities lending, repos and outright security purchases
- Replaces 14 year old mainframe-based TRAPS system and FedLine terminals at dealers
- Reduces operational risk, increases transparency of operations, very flexible
    - Operational results released faster

    - Built-in optimizers to select winning propositions
    - Easier to use front-end for dealers
    - Information flows automatically to dealers, data warehouses, external website, wire services
- Designed by FRBNY, built by vendor (Sapient)
- Live for securities lending November 2005 and repo March 2006
- Expected go live for outright security purchases May 2006

Appendix 2: Materials used by Mr. Reinhart

Material for **FOMC Briefing on Monetary Policy Alternatives**
Vincent R. Reinhart
May 10, 2006

Class I FOMC - Restricted-Controlled FR

Exhibit 1
Policy Expectations and Yields

Top panel
Expected Federal Funds Rate*

A line chart showing a daily time series since June 2004 of the expected federal funds rate at the end of 2006 and the end of 2007, derived from money market futures contracts. Expected rates at both dates dip down in 2004, and then generally trend higher.

* Derived from Eurodollar futures, with a term permium adjustment. Return to text

Middle-left panel
Expected Federal Funds Rates*

A line chart shows the trajectory of the expected federal funds rate out to the end of 2007, derived from money market futures quotes, as of March 27, 2006 and as of May 9, 2006. The path for monetary policy has shifted upwards between those two dates, especially at longer maturities.

* Derived from federal funds and Eurodollar futures, with a term premium adjustment. Return to text

Middle-right panel
Change in One-year Forward Rates*

A bar chart shows changes in real and nominal forward rates since March 27, 2006. One-year forward rates ending two-, five-, and ten-years hence are shown. Both nominal and forward rates increased, especially at longer horizons. The nominal forward rates increased by more than the real forward rates.

* Changes since March 27. Forward rates are derived from smoothed yield curves fitted to nominal and TIPS securities. Return to text

Bottom panel
Five-to-Ten Year Forward Inflation Compensation

A line chart showing a daily time series of five year forward five year inflation compensation implied by yields on nominal Treasury securities and TIPS over the period since June 2004. The period during which the most recent FOMC statement had characterized inflation or inflation expectations as contained is shaded, and the period since the last FOMC meeting is shaded in yellow. The series fluctuates between about 2.4 and 3.2 percent over the period plotted, with the most recent value around 2.8 percent. Although forward rates of inflation compensation moved up since the last FOMC meeting, these forward rates had previously declined. They still stand below their level at some points in the past when the FOMC had characterized inflation as contained.

Exhibit 2
Inflation Concerns

Top-left panel
One-year Inflation Expectations

A line chart shows the year-ahead inflation forecasts from the Michigan survey since the start of 2004. The most recent survey showed slightly higher inflation expectations, but these expectations remain well below their level in the fall of 2005.

Top-center panel
Long-term Inflation Expectations

A line chart shows the long-term inflation forecasts from the Michigan survey since the start of 2004. The series has been drifting higher, and moved up again in April.

Top-right panel
Major Currencies Index

A line chart shows the daily value of the major currencies index since the start of 2004. The dollar has generally been trending lower against other major currencies over this period, and fell fairly sharply over the last two months.

Middle-left panel
Domestic Boom Scenario

A bar chart shows the forecasts for real GDP growth and core PCE inflation in 2006 and 2007 in both the baseline Greenbook forecast and in the domestic boom alternative simulation. In the baseline, GDP growth falls from 3.8 percent in 2006 to 3.0 percent in 2007, while inflation falls from 2.2 percent in 2006 to 2.0 percent in 2007. The alternative simulation has higher growth both years, but the inflation outlook is virtually identical.

Middle-right panel
Market and Model-based Confidence Intervals for the Federal Funds Rate

A line chart shows the actual and Greenbook-projected path of the funds rate. A 90 percent confidence interval obtained from model simulations is included, as is a 90 percent confidence interval derived from quotes on interest rate futures options. The options based confidence interval is a good deal narrower than the Greenbook confidence interval. The projected path of the funds rate in the domestic boom alternative simulation is also shown. This lies at about the top end of the market-based confidence interval.

Bottom panel

FOMC Surprises

A bar chart shows the unexpected component of the FOMC's target funds rate decision at each FOMC meeting since February 1994. These are derived from federal funds futures quotes. A black dot is included to show how big a surprise a 50 basis point tightening would be at the current meeting. This would be larger in absolute value than any surprise over the period shown. All surprises have been less than 25 basis points in absolute value. The surprises have got smaller over time, and have been very small in recent years.

Exhibit 3
When are you going to stop?

Top-left panel
Unemployment Rate

A line chart showing the history of unemployment since the start of 2004, and the Greenbook forecast. Unemployment has trended lower since the start of 2004, and now stands around 4.7 percent, but it is forecast to turn back up to around 5 percent.

Top-right panel
Core PCE

A line chart showing the history of the four-quarter percent change in the core PCE price index since the start of 2004, and the Greenbook forecast. This measure of inflation moved up from around 1.6 percent to around 2.2 percent in 2004. It has since come back down to just below 2 percent. It is forecast to rise again, and then fall to just below 2 percent at the end of 2007.

Middle-left panel
Spot Oil Price

A line chart showing the history of the spot West Texas Intermediate oil price since the start of 2004. Oil prices have climbed steadily over this period from less than $40 per barrel to over $70 per barrel.

Middle-right panel
Scatter plot of Four-Quarter Percent Changes in Core PCE and Spot Oil Price (WTI)

A scatter plot that plots the four-quarter percent change in the core PCE price index on the vertical axis against the four-quarter percent change in oil prices on the horizontal axis. A regression line is shown. There is little association between these two variables; the regression line is fairly flat and actually slopes downwards modestly.

Bottom panel
Range of Estimated Equilibrium Real Rates

A line chart reproduces the Bluebook chart on staff estimates of the equilibrium real interest rate, R*. The 90-percent confidence interval around the staff estimates of R* prepared for the current FOMC meeting ranges from roughly 0 to 6 percent. The 70-percent confidence interval ranges from about 1 to 5 percent. The range of the staff estimates is roughly 2 to 4 percent. The Greenbook-consistent measure of R* is currently about 2¾ percent. The actual real federal funds rate is currently about 2¾ percent, and would be about 3 percent if the Committee tightened policy by 25 basis points, and 3¼ percent if the Committee tightened policy by 50 basis points. Over the period since mid-2004, the actual real federal funds rate has trended higher, moving from about -1 percent to its current value of 2¾ percent. The range of estimated values of R* has only moved slightly higher over the same period.

Explanatory notes are provided after Chart 7 of the Bluebook.

Exhibit 4
Ending the Policy Firming Process

Top-left panel
Federal Funds Rate

A line chart shows the assumption for the federal funds rate in the baseline and one alternative extended Greenbook simulation ("lower near-term funds rate"), going out to 2010. The baseline has the federal funds rate moving up to 5 percent and then falling below 4¾ percent in 2008. The alternative simulation has a constant federal funds rate of 4¾ percent over the full simulation horizon.

Top-right panel
Five-Year Real Interest Rate

A line chart shows the trajectory of five-year real interest rates in these two simulations. In both simulations, this real interest rate climbs over 3 percent by 2010.

Bottom-left panel
Civilian Unemployment Rate

A line chart shows the trajectory of the unemployment rate in these two simulations. In the baseline simulation, the unemployment rate moves up to 5 percent by the end of 2007 and remains constant at that level. In the alternative simulation, the unemployment rate is a bit lower until 2009, and slightly higher thereafter.

Bottom-right panel
Core PCE Inflation

A line chart shows the trajectory of the four-quarter percentage change in the core PCE price index in these two simulations. In both simulations, inflation peaks at around 2¼ percent in 2006, before moving down below 2 percent, but inflation moves down a little further and a little faster in the baseline than in the alternative simulation.

Revised Table 1:
Alternative Language for the May FOMC Announcement

[Note: In Appendix 2, Revised Table 1, emphasis (italic) has been added to indicate normal red text in the original document. Strong emphasis (bold) has been added to indicate normal blue text in the original document.]

	March FOMC	Alternative A	Alternative B	Alternative C
Policy Decision	1. The Federal Open Market Committee decided today to raise its target for the federal	The Federal Open Market Committee decided today to *keep* its target for the federal	The Federal Open Market Committee decided today to raise its target for the federal	The Federal Open Market Committee decided today to raise its target for the federal

	March FOMC	Alternative A	Alternative B	Alternative C
	funds rate by 25 basis points to 4-3/4 percent.	funds rate *unchanged at* 4-3/4 percent.	funds rate by 25 basis points to *5* percent.	funds rate by *50* basis points to *5-1/4* percent.
Rationale	2. The slowing of the growth of real GDP in the fourth quarter of 2005 seems largely to have reflected temporary or special factors. Economic growth has rebounded strongly in the current quarter but appears likely to moderate to a more sustainable pace.	*Economic growth rebounded to nearly a 5 percent annual rate in the first quarter. The Committee sees growth as* likely to moderate *to a sustainable pace, partly reflecting a gradual cooling of the housing market* **and the lagged effects of increases in interest rates and energy prices.**	*Economic growth* **has been quite strong so far this year.** *The Committee sees growth as* likely to moderate *toward* 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.**	*Economic growth* **has been quite strong so far this year**. *The Committee sees growth as* likely to moderate *somewhat in coming quarters, though data confirming a slowing in growth have been sparse.*
	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.	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. *The Committee expects* **these trends to continue.** 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.	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.**	As yet, the run-up in the prices of energy and other commodities appears to have had only a modest effect on core inflation, *and* ongoing productivity gains have helped to hold the growth of unit labor costs in check. *However, the recent climb in energy and other commodity prices, an apparent rise in inflation expectations, and* possible increases in resource utilization have the potential to add to inflation pressures.
Assessment of Risk	4. The Committee judges that some further policy firming may be needed to keep the risks to the attainment of both sustainable economic growth and price stability roughly in balance.	*Against this backdrop, the Committee preferred to await additional information about economic developments before taking any further action. The Committee sees the risks to its price stability objective as slightly to the upside and judges it more likely that its next policy action will be a tightening rather than an easing.*	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.*	The Committee judges that, *with this action*, the risks to the attainment of both sustainable economic growth and price stability *are* roughly in balance.
	5. In any event, the Committee will respond to changes in economic prospects as needed to foster these objectives.	In any event, the Committee will respond to changes in *the economic outlook, as implied by incoming information, as needed to foster its objectives of sustainable economic growth and price stability.*	In any event, the Committee will respond to changes in economic prospects as needed to *support the attainment of its objectives.*	[Unchanged.]

Return to top