The Federal Reserve Board

Meeting of the Federal Open Market Committee
August 8, 2006 Presentation Materials -- Text Version

Presentation Materials (PDF)

Pages 148 to 158 of the Transcript

Appendix 1: Materials used by Mr. Kos

Page 1

Top panel

Title: Realized Volatility of MSCI Equity Indices
Series: Rolling 21-day volatility of daily returns on MSCI Indices: Emerging Markets, Europe, Japan, and U.S.
Horizon: January 2, 2006 to August 4, 2006
Description: There was a pickup in volatility in early May, but volatility began to move lower in late June. FOMC meetings on May 10, 2006 and June 29, 2006 are labeled with tripwires.

Middle-left panel

Title: Implied Volatility on the S&P 100
Series: VIX Index; average of the VIX Index since January 1990 is also shown: 19.23
Horizon: January 2, 2006 to August 4, 2006
Description: Index started to pick up in early May before declining in mid-July.

Source: CBOE

Middle-right panel

Title: Treasury Yield Implied Volatility
Series: Merrill Lynch Move Index; average of the Move Index since January 1990 is also shown: 100.77
Horizon: January 2, 2006 to August 4, 2006
Description: Index has remained at a relatively constant level since January 2, 2006.

Source: Merrill Lynch

Bottom-left panel

Title: 1-Month Euro-Dollar Implied Volatility
Series: 1-month Euro-Dollar implied volatility; average of the implied volatility since January 2000 is also shown: 10.40
Horizon: January 2, 2006 to August 4, 2006
Description: Implied volatility declined since late May until a small pickup in late July.

Source: UBS

Bottom-right panel

Title: 1-Month Dollar-Yen Implied Volatility
Series: 1-month Dollar-Yen implied volatility; average of the implied volatility since January 2000 is also shown: 9.40
Horizon: January 2, 2006 to August 4, 2006
Description: Implied volatility has declined since late May.

Source: UBS

Page 2

Top panel
Changes in Select Central Bank Policy Rates

Activity Since January 2, 2006

Region	Country	Official Interest Rate	Current Rate	Change in Bps since 1/2/06	Last Change
The Americas					
	United States	Federal funds rate	5.25	100	Jun-29
	Canada	Overnight funding rate	4.25	100	May-24
	Brazil	SELIC overnight rate	14.75	(325)	Jul-19
	Mexico	Repo rate	7.00	(125)	Apr-21
	Chile	Discount rate	5.25	75	Jul-14
Europe/Africa					
	Euro area	Refi rate	3.00	75	Aug-03
	United Kingdom	Repo rate	4.75	25	Aug-03
	Sweden	Repo rate	2.25	75	Jun-20
	Norway	Deposit rate	2.75	50	May-31
	Czech Republic	2-week repo rate	2.25	25	Jul-27
	Hungary	2-week deposit rate	6.75	75	Jul-24
	Slovak Republic	2-week repo rate	4.50	150	Jul-25
	South Africa	Repo rate	8.00	100	Aug-03
	Switzerland	3-month Swiss Libor	1.50	50	Jun-15
	Turkey	Overnight borrowing rate	17.50	400	Jul-20
Asia/Pacific					
	Australia	Cash rate	6.00	50	Aug-02
	Japan	Overnight call rate	0.25	25	Jul-14
	Korea	Overnight call rate	4.25	50	Jun-08
	India	Reverse repo rate	6.00	75	Jul-25
	Thailand	14-day repo rate	5.00	100	Jun-07
	Taiwan	Official discount rate	2.50	25	Jun-29

Source: JP Morgan

Bottom panel

Title: Bank of Japan Current Account Balances and Overnight Call Rate
Series: Bank of Japan current account balances (left y-axis) and uncollateralized yen overnight call rate (right y-axis)
Horizon: January 2, 2006 to August 4, 2006
Description: Current account balances decreased steadily between late March and May, but ticked up on several days in June and July. The uncollateralized overnight call rate remained close to zero until jumping up in mid-July.

Page 3

Top panel

Title: U.S. Equity Performance
Series: S&P 500, Dow Jones Industrial Average, and NASDAQ Indices (Indexed, 1/2/06=100)
Horizon: January 2, 2006 to August 4, 2006
Description: All indices began to decline in mid-May but started to pick back up in mid-July.

Middle panel

Title: 2- and 10-Year Treasury Yields and Target Fed Funds Rate
Series: 10-year Treasury yield, 2-year Treasury yield, and target fed funds
Horizon: January 2, 2006 to August 4, 2006
Description: 2- and 10-year Treasury yields rose as the target federal funds rate increased, until late June when yields began to decline.

Bottom panel

Title: U.S. Breakeven Inflation Rates
Series: 5-year 5-year forward and 10-year breakeven inflation rates
Horizon: January 2, 2006 to August 4, 2006
Description: Both 5-year 5-year forward and 10-year breakeven inflation rates have risen approximately 20 basis points since the beginning of 2006.

Page 4

Top panel

Title: Current U.S. 3-Month Deposit Rates and Rates Implied by Traded Forward Rate Agreements
Series: U.S. dollar 3-month Libor fixing and 3-month rates 3 months forward, 6 months forward, and 9 months forward
Horizon: October 1, 2005 to August 4, 2006
Description: U.S. 3-month forward rates rose steadily over the period shown until declining modestly in late June 2006.

Middle panel

Title: Current U.S. 3-Month Deposit Rates and Rates Implied by Traded Forward Rate Agreements
Series: U.S. dollar 3-month Libor fixing and 3-month rates 3 months forward, 6 months forward, and 9 months forward
Horizon: November 1, 1999 to September 30, 2000
Description: U.S. 3-month forward rates slowly declined after mid-May 2000.

Bottom-left panel

Title: 3-Month Eurodollar Futures Contracts: December 2006-2007 Rate Spread
Series: December 2006-2007 Eurodollar Futures Rate Spread
Horizon: October 1, 2005 to August 4, 2006
Description: The spread became more negative after mid-May 2006

Bottom-right panel

Title: 3-Month Eurodollar Futures Contracts: December 2000-2001 Rate Spread
Series: December 2000-2001 Eurodollar Futures Rate Spread
Horizon: November 1, 1999 to September 30, 2000
Description: The spread declined after mid-February 2000, becoming negative in September 2000.

Appendix 2: Materials used by Mr. Madigan

Material for **FOMC Briefing on Monetary Policy Alternatives**
Brian Madigan
August 8, 2006

Class I FOMC - Restricted Controlled FR

Exhibit 1 of 4
Monetary Policy Expectations

Top panel
Probability of a 25 b.p. Firming at August FOMC Meeting

A line chart shows an intradaily time series of the probability of a 25 basis point rate hike at the August FOMC meeting, derived from federal funds futures quotes, with a term premium correction. The time series are shown at five-minute intervals from June 29 to August 7. The odds of a rate hike generally drifted lower over this period. Lines are shown marking the effects of selected events: the June FOMC announcement, the ADP report, the June and July employment reports, PPI, CPI and GDP releases, the Chairman's monetary policy testimony and the release of the minutes from the June FOMC meeting. Each of these events was followed by a marking down of the probability of a rate hike, with the sole exception of the CPI releases, which was followed by a firming of monetary policy expectations.

Middle-left panel
Dealer Survey: Average Disagreement and Uncertainty Regarding Policy Choice Two Weeks Before Meeting

A bar chart shows measures of the average disagreement and average individual uncertainty of respondents to the Desk's survey of primary dealers about the target rate decision at the subsequent

FOMC meeting for each meeting since September 2005. Both measures are higher ahead of the August 2006 FOMC meeting than for any other meeting since September 2005.

Middle-right panel
Dealer Survey: Expectations regarding August Statement

- Express more conviction regarding moderation of growth
- Acknowledge elevated inflation ratings
- Express concern about inflation risks
- Indicate data dependence

Bottom-left panel
Expected Federal Funds Rates based on Federal Funds Futures

A line chart shows the expected path of the federal funds rate over the next four FOMC meetings derived from quotes on federal funds futures. The path is shown as of June 28, 2006 and August 7, 2006. On June 28, there were expectations for some more tightening, but by August 7 the expected path of the funds rate was almost flat.

Bottom-center panel
Expected Federal Funds Rate

A line chart shows the expected path of the federal funds rate over the next two years derived from quotes on federal funds and eurodollar futures. The path is shown as of June 28, 2006 and August 7, 2006. On June 28, there were expectations for some more tightening later this year followed by a gentle downward slope to the expected policy path. By August 7 the expected path of the funds rate was almost flat in the near-term, and slopes downward more sharply during 2007.

Note. Estimates from federal funds and Eurodollar futures, with an allowance for term premia and other adjustments.

Bottom-right panel
Eurodollar Implied Volatility at Selected Maturities*

A line chart shows the width of 90 percent confidence intervals for the federal funds rate six and twelve months hence derived from eurodollar options-implied volatilities since 1994. These volatilities ticked up slightly over the intermeeting period, but both remain at a historically low level.

* Width of 90 percent confidence interval computed from the term structures for the expected federal funds rate and implied volatility Return to text

Exhibit 2 of 4
Leaving the Funds Rate Unchanged at this Meeting

Top-left panel
Case for Alternative B (0 b.p., Upside Inflation Risks)

- Staff forecasts growth slightly below potential and gradually declining inflation with unchanged funds rate
- Real rates in range of estimated equilibrium values
- Consistent with some policy rules
- But significant inflation risks remain

Top-right panel
Staff Forecast

	2006			2007
	Q1	Q2	H2	
Real GDP growth	5.6	3.0	2.1	2.3
Unemployment rate*	4.7	4.7	4.8	5.2
Core PCE inflation	2.1	2.9	2.5	2.3

* Average level for last quarter of indicated period. Return to table

Middle-left 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 5 percent. The 70-percent confidence interval ranges from about 1 to 4 percent. Over the past two years, seventeen consecutive policy actions have brought the real federal funds rate from a quite low level to the middle of the range of estimates of the equilibrium, which is roughly from 2 to 3 percent.

Middle-right top panel
First-Difference Rule (\pi^* = 2 percent)

The panel reproduces the Bluebook chart on the first-difference monetary policy rule using an inflation target of 2 percent. This is a line chart in which historical data since 2004 are shown by a solid line and the future rule prescription out to the end of 2007 is given by a dashed line. The rule points to only a quarter point of additional policy firming through the end of next year.

Middle-right bottom panel
Upside Inflation Risks

- High levels of resource utilization
- Elevated energy and commodity prices
- Potential for further increases

Bottom-left panel
Case for Alternative A (0 b.p., No Policy Tilt)

- Emerging downside risks
  - output and employment have decelerated
  - housing may be slowing more than expected
- Consistent with staff outlook
  - optimal control simulation (\pi^* = 2 percent)
  - estimated forecast-based policy rule

Bottom-right panel
Estimated Forecast-Based Rule

The panel plots the actual and projected future trajectory of the federal funds rate using the estimated forecast-based rule. This is a line chart in which historical data since 2004 are shown by a solid line

and the future rule prescription out to the end of 2007 is given by a dashed line. Using this rule, the future trajectory of the federal funds rate is fairly flat, but slopes downward slightly during next year.

Exhibit 3 of 4
Raising the Federal Funds Rate 25 b.p. at this Meeting

Top panel
Case For Alternative C (+25 b.p., No Policy Tilt)

- Another firming may be seen as necessary to balance the risks
- Costs of a further increase in inflation may be high
- Signal anti-inflationary resolve

Middle panel
Case For Alternative D (+25 b.p., Upside Inflation Risks)

- Find staff forecast likely but prefer steeper downward trend to inflation
- Expect stronger aggregate demand than in Greenbook
- See greater inflation pressures than in Greenbook
    - or substantial inflation risks at a funds rate of 5-1/4 percent

Bottom-left panel
Optimal Control Policy (\pi^* = 1½ Percent)

The panel reproduces the Bluebook chart on the optimal control simulations for the federal funds rate with a 1½ percent inflation objective. It is a line chart showing both results with equal weights on the different objectives (solid black line) and with less weight on the unemployment objective (red dashed line). The optimal control path with equal weights peaks at about 5¾ percent next year, before declining gradually. With less weight on the unemployment objective, the optimal control path rises to nearly 6½ percent, before sloping down.

Bottom-right panel
Persistent Inflation Scenario

The panel reproduces the Bluebook chart on optimal policy where inflation pressures are more durable than forecast by the staff. It is a line chart showing the optimal policy with perfect foresight (the solid black line), the optimal policy with gradual learning (the red dashed line) and the empirical outcome-based rule (the blue dashed line). If the incremental inflation pressures are fully foreseen, optimal policy would call for boosting the funds rate about 75 basis points above baseline over the next year. With gradual learning or with the empirically estimated rule that reacts only to outcomes, the policy response is more drawn out but is eventually of similar dimensions.

Exhibit 4 of 4
Table 1: Alternative Language for the August FOMC Announcement

[Note: In Appendix 2, Exhibit 4, Table 1, strong emphasis (bold) has been added to indicate normal red text in the original document.]

Alternative A	Alternative B	Alternative C	Alternative D

	Alternative A	Alternative B	Alternative C	Alternative D
Policy Decision	1. The Federal Open Market Committee decided today to **keep** its target for the federal funds rate **at** 5¼ percent.	The Federal Open Market Committee decided today to **keep** its target for the federal funds rate **at** 5¼ percent.	The Federal Open Market Committee decided today to raise its target for the federal funds rate by 25 basis points to **5½** percent.	The Federal Open Market Committee decided today to raise its target for the federal funds rate by 25 basis points to **5½** percent.
Rationale	2. Economic growth **has moderated** 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.	[Same as A]	[Same as A]	[Same as A]
	3. Readings on core inflation have been elevated in recent months**, owing in part to pass-through of increased energy and other commodity prices. However, inflation pressures seem likely to moderate over time, reflecting the cumulative effects of monetary policy actions and other factors restraining aggregate demand,** ongoing productivity gains, and contained inflation expectations.	Readings on core inflation have been elevated in recent months, **owing in part to the pass-through of increased energy and other commodity prices. However, inflation pressures seem likely to moderate over time, reflecting** contained inflation expectations **and the cumulative effects of monetary policy actions and other factors restraining aggregate demand.**	Readings on core inflation have been elevated in recent months**, and** the high levels of resource utilization and of the prices of energy and other commodities have the potential to sustain inflation pressures. **However, inflation pressures seem likely to moderate over time, reflecting** contained inflation expectations **and the cumulative effects of monetary policy actions and other factors restraining aggregate demand.**	Readings on core inflation have been elevated in recent months. **The moderation in the growth of aggregate demand and anchored** inflation expectations **should help to contain inflation in coming quarters.** However, the high levels of resource utilization and of the prices of energy and other commodities have the potential to sustain inflation pressures.
Assessment of Risk	4. **In these circumstances, future policy adjustments** will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.	**Nonetheless, 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 implied by incoming information.	[Same as A]	The extent and timing of any additional firming that may be needed to **foster a moderation in inflation pressures** will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.
	5. **[None]**	**[None]**	**[None]**	**[None]**

▲ Return to top