## Money and Financial Markets



a. Probabilities are calculated using trading-day closing prices from options on October 2004 federal funds futures that trade on the Chicago Board of Trade.
b. All yields are from constant-maturity series.
c. Average for the week ending on the date shown.
d. The first weekly average available after the FOMC meeting

SOURCES: Board of Governors of the Federal Reserve System, "Selected Interest Rates," Federal Reserve Statistical Releases, H.15; Chicago Board of Trade; and Bloomberg Financial Information Services.

An inflation-adjusted overnight interest rate near or below zero is not thought to be sustainable without ultimately inducing inflationary pressures. Thus, the Federal Open Market Committee (FOMC) will eventually need to raise the federal funds rate to a more neutral level. The language of the FOMC's June 30 meeting indicated that the Committee would do whatever was required to maintain price stability, but given current economic conditions, it anticipated that the fed funds rate could be increased at a "measured" pace.

At press time, the market-implied probabilities suggested that the most likely outcome of the August FOMC meeting would be a 25 bp hike. This outcome was consistently viewed as the most probable during the entire intermeeting period. At the time of the June 30 meeting, the probability of a 50 basis point (bp) hike was about one in three, but it rapidly declined. The probability of no change hovered around $10 \%$ throughout the intermeeting period.

Looking toward the September meeting, options on October fed
funds futures contracts reveal that markets anticipate the FOMC is likely to choose a $1.75 \%$ fed funds rate target. Thus, two hikes of 25 bp each were viewed as the most likely outcomes of a "measured" pace for policy through the summer months. Despite the decline over the intermeeting period, a $2 \%$ target, involving a 50 bp hike at one of the next two meetings, was given a $20 \%$ probability.

Short-term Treasury rates rose substantially in the spring, consistent with the steepening funds rate trajectory in May, but stabilized during the (continued on next page)

## Money and Financial Markets (cont.)




Percent, daily



[^0]summer. Long-term rates also rose but backed off recent highs after the initial run-up. Moreover, yield curves indicate that long rates immediately after the meeting equaled those of early May. Thus, markets seem to have been well prepared for the June policy action, in contrast to their response in 1994. That earlier episode has been characterized as an "inflation scare" in which long-term rates jumped in reaction to an unanticipated series of rate increases. The policy surprise appeared to induce rising inflation expectations as investors feared that the FOMC had gotten
behind the curve. Currently, longterm rates, though above their recent lows, are near their 2003 averages, suggesting that inflation expectations are well contained. Moreover, longterm inflation expectations implied by inflation-protected 10-year Treasury notes have been drifting down lately, consistent with independent evidence based on household survey data. Unlike surveyed expectations, TISS-based inflation expectations remain above their 2003 levels.

Risk spreads have also narrowed, indicating that concerns about financial disruptions are well contained.

Reduced yield spreads in bond markets suggest uncertainty may be abating. However, in equity markets, prices have not reflected the surprisingly strong earnings growth reported since the beginning of the year.
Stock price indexes have been softening this year. Fundamentally, equity prices are determined as the discounted sum of the expected future stream of profits. The discount factor, in turn, reflects expected rates of return on alternative assets, such as bonds, plus an equity risk premium. Hence, declining equity prices
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## Money and Financial Markets (cont.)





a. Data are not seasonally adjusted.
b. Growth rates are calculated on a fourth-quarter over fourth-quarter basis. The 2004 growth rate for M2 is calculated on a July over 2003:IVQ basis. Data are seasonally adjusted.
c. Annual data until 1997, quarterly data thereafter.
d. Compared with previous financing.

SOURCES: Board of Governors of the Federal Reserve System, "Money Stock Measures," Federal Reserve Statistical Releases, H.6; Federal Home Loan Mortgage Corporation; Conference Board; Standard and Poors Corporation; and University of Michigan.
and a falling price/earnings ratio, in the face of strong earnings growth, could reflect an increase in the equity risk premium.

Though a rising equity risk premium may produce a lower price/ earnings ratio, it is not the only factor affecting the ratio. Changes in transactions costs and investor participation have also been associated with changes in equity valuation. Historically, the price/earnings ratio had tended to vary around a mean level of about 13. As transactions costs have fallen over the past 15 years, and as greater numbers of investors gained
access to equity markets, the mean level of the price/earnings ratio has tended to rise.

Many economists now believe that a "normal" price/earnings ratio may be above or near 20. The 1990s experience has been characterized as having an unsustainably low equity premium (that is, a high price/earnings ratio). The recent decline to a level of 20 could be a return to a more normal valuation. The economic reasoning that underlies this view, however, also holds that over the long term, one might expect stock returns to be around $5 \%$ after inflation, down from
historical returns of around $7 \%$, but nevertheless consistent with a healthy, growing economy.

Notwithstanding the recent soft patch, other indicators also reveal continued economic strength. Consumer confidence jumped in July, giving hope that its sharp second quarter slowdown will not be permanent. Moreover, M2 growth remains above $5 \%$, despite the depressing effects typically associated with diminished mortgage refinancings, and thus provides more than adequate liquidity to sustain robust growth.


[^0]:    a. Treasury inflation-indexed securities.
    b. Merrill Lynch AA, BBB, and High-Yield Master II Indexes, each minus the yield on the 10-year Treasury note.
    c. Earnings after 2004:IQ are projections provided by Standard and Poors.

    SOURCES: Standard and Poors Corporation; and Bloomberg Financial Information Services.

