May 11, 2004

What's All the Fuss About Interest Rates?

The Most Widely-Anticipated "Surprise" on Wall Street

Worries on Wall Street tend to follow themes, and the current theme is interest rates. Since June 2003 the target Fed Funds interest rate, a key short-term rate, has stood at 1%, its lowest level since the '50s. Since then the markets have strained to listen as the Fed has gradually changed the tone of the statements accompanying its interest rate announcements. Last summer we heard that policy would likely remain accommodative (that is, rates would stay low) for "a considerable period." More recently the message has been that the Fed could be "patient" in reviewing its accommodative stance. At its regular meeting May 4, the Federal Reserve Open Market Committee, as widely expected, held its Fed Funds rate target at 1%, but in its oracular utterance following the meeting the Committee said, "Policy accommodation can be removed at a pace that is likely to be measured." In this bland language the Fed put markets on notice that "policy accommodation can be removed," that interest rates can rise, but "at a pace that is likely to be measured" – in other words, not suddenly.

Many market participants have begun to agree that the Fed Funds rate must increase soon, and the market seemed not to register surprise at the FOMC's announcement. But while the equity markets seemed comfortable with the Fed's May 4 statement, both stocks and bonds seemed to react badly to a strong employment report from the Labor Department on Friday, May 7. The jobs report offered evidence of gathering strength in the economic recovery – good news, it would seem. Yet the stock market fell sharply, with the S&P 500 losing –1.37%. Why would the stock market fall on good economic news? Because the news seems to reinforce the market's expectation that interest rates are likely to rise soon. Rising rates do not always hurt the stock market, but expectations of rising rates seem to have hurt it in recent weeks. The stock market's recent drop (the S&P 500 index fell by about –3.7% in price in the two weeks from April 23 to May 7) appears to be related to interest rate worries.

The bond market has also been weak. Even though the Fed has not yet taken any direct steps, interest rates have moved up noticeably in the past several weeks,

165 University Avenue Palo Alto, CA 94301 (650) 566-0200 Office (650) 566-0210 Facsimile

which means that bond prices have fallen. The table shows the sharp rise in US Treasury yields at various maturities from March 31 to May 7.

US TREASURY YIELD CURVE MARCH 31, 2004 AND MAY 7, 2004					
	3 months	1 year	2 years	5 years	10 years
3/31/04	0.95%	1.20%	1.60%	2.80%	3.86%
5/4/04	1.07%	1.83%	2.64%	3.96%	4.79%
Difference	0.12%	0.63%	1.04%	1.16%	0.93%

Source: US Dept. of the Treasury, Bureau of the Public Debt, Daily Yield Curve Rates. See http://www.treas.gov/offices/domestic-finance/debt-management/interest-rate/yield.html

The recent market weakness is hardly a disaster. Year-to-date through May 7, the S&P 500 fell in price by –1.19%, and the US bond market, as measured by the Lehman US Aggregate Bond Index, returned –1.44%. Many investors who enjoyed solid gains in 2003 have not given back much so far in 2004.

What are Fed Funds, Anyway, and why are they Important?

When news reports talk about the FOMC's interest rate policy, they are referring specifically to its stance on a particular short-term interest rate, the Fed Funds rate. The Fed targets this rate because the policy tools it has at its disposal can influence it directly. The Fed Funds target has proved through time to be an effective tool of monetary policy – the economic business of trying to influence interest rates, inflation, and liquidity (the availability of cash and credit), to promote such economic goals as price stability (low inflation) and steady growth.

Fed Funds, in spite of the name, are not funds provided directly by the Fed. They are actually funds that banks borrow and lend among themselves overnight for the purpose of meeting regulatory requirements. It works like this: The basic business of banks is to take deposits and make loans. When you deposit money at your bank, it does not sit in a vault; the bank uses most of it to fund loans. As a safeguard, banks must satisfy the reserve requirement, a rule requiring them to hold, in cash or on deposit with the Federal Reserve Bank, a certain percentage of the amount its customers have on deposit. The Federal Reserve Board sets this percentage; it has stood at 15% for a very long time. Every bank must meet this requirement at the end of every business day. In the natural ebb and flow of the banking business, most banks have some days on which they are a little short and other days on which they have a little extra. Banks needing cash to meet reserve requirements may borrow overnight from banks with excess balances. Because the funds, sometimes in large amounts, must

transfer quickly and securely, banks generally move them over the wire transfer system operated by the Federal Reserve – the "Fed wire" – hence the name, "Fed Funds." In principle, banks negotiate the rates on these loans, but the Fed Funds market is very liquid and competitive, so a single rate – the "Fed Funds Rate" – generally prevails. This is the interest rate the Fed targets.

The Fed does not actually mandate the Fed Funds rate, but it can manage it closely. The mechanism is surprisingly simple. The Fed Funds rate responds to the level of liquidity in the banking system. If cash becomes scarce (tight money), banks with cash can demand higher rates to lend it, so the Fed Funds rate rises. If cash is plentiful (easy money), the rate tends to fall. The Fed sets and announces a target rate, and then monitors the actual rate in the market. If it creeps above the target rate, the Fed adds liquidity (cash) to the market. It does this by purchasing Treasury securities, primarily Treasury bills, in the open market. Because the Fed has the ability to create fiat money (a wire from the Federal Reserve System is money good whether there is anything on deposit there or not), this is also the means by which the Government monetizes the federal debt, or "prints money." If the rate falls below the target – or if the Fed raises its target – then the Fed drains liquidity by selling Treasury securities. These "open market operations" give the Fed Open Market Committee its name.

Possible negatives from rising rates

While the market broadly expects the Fed to begin raising the Fed Funds rate soon, the recent skittishness in the markets reflects a number of potentially negative consequences. These negatives are likely the main reasons the Fed has been so circumspect in both its actions and its language while it has been building momentum toward tighter money.

Reduction of economic stimulus. One of the main purposes of an accommodative interest rate policy is to provide a monetary stimulus to the economy. The idea is that low interest rates encourage a variety of private decisions that are conducive to economic growth. Consumers may be able to afford more borrowing, which could increase consumer spending and therefore general economic production. Businesses may be able to finance more new investment or more growth if they are able to raise capital at lower rates. Credit is generally easier, too, when liquidity is plentiful. An increase in interest rates could reverse these effects. Credit may become more expensive or difficult to obtain. Businesses may restrict their investment activities or growth as financing becomes more expensive. Consumers may feel the pinch. These factors could slow down economic growth, which in turn could affect employment, business profitability, and investment returns.

Mortgage rates and housing prices. Rates on fixed-rate mortgages generally track intermediate- and long-term US Treasury yields. If the 10-year Treasury yield jumps, 30-year fixed-rate mortgage rates will probably rise sharply, too. Homeowners with adjustable-rate mortgages would feel direct effects from higher short-term rates. Higher mortgage rates mean higher monthly payments and slower repayment of principal. If mortgage rates rose too sharply, then the loan amount that a given

monthly payment would support could drop, and the inability of buyers to pay could cause home prices to fall. A drop in home prices, in turn, could affect consumer confidence and thence the willingness of consumers to spend.

Asset deflation. A subtle, but definite, concern with a rapid rise in interest rates is the possibility of asset deflation, a decline in the value of both financial assets like stocks and bonds, and in other, more tangible assets. This potential problem affects assets whose primary value comes from their ability to generate cash flow. The simplest case is the bond market – rising interest rates and falling bond prices are synonymous. To see why, look at the 5-year note the US Treasury issued in February 2004. It has a coupon of 3%, which means that if you own $100,000 par amount of this bond, the Treasury will pay you $3000 per year in interest. The Treasury is about to issue a new 5-year note in mid-May. Given the recent movement in rates, this new note could well have a coupon of 4%. The February bonds will continue to pay 3%, so they would naturally be less valuable than the otherwise comparable May bonds paying 4%. That's why bond prices fall as interest rates rise. Generally speaking, the same change in yield will affect longer-term bonds more than shorter-term ones.

Interest rates can also have some direct effect on other asset values, including, at least recently, the stock market. Many investments aside from bonds produce steady streams of cash flows. If the value of an asset represents the value of that stream of cash flows, then rising rates may cause that value to fall in much the same way they cause bond prices to fall.

If there are so many negatives, why raise rates?

If the Fed does raise the Fed Funds target, it will be an elective action within its policy discretion. With all the potential negatives associated with higher rates, it's worth understanding why the Fed is likely to consider the move necessary. If it does elect to raise the target, it would have to base its action on a judgment that the benefits outweigh the costs.

Fighting inflation. Probably the greatest risk from keeping rates too low for too long is the risk of reigniting high inflation. One way to see why is to look at the mechanics of managing the Fed Funds rate. To keep the Fed Funds rate low, the Fed must, in essence, print money. As economic activity increases, so does the demand for liquidity, which would tend to raise interest rates, including the Fed Funds rate. To keep the Fed Funds rate low, the Fed must then supply money through its open market operations that otherwise might not be in the system. Eventually, if these dollars continue to accumulate so that more and more dollars are chasing the same economic output, prices may begin to rise – inflation.

Avoiding economic overheating. When the economy is in recession, policy makers and business people hope to see economic growth re-establish itself quickly. Low interest rates can help. With too much economic stimulus, at some point the economy may overheat, rising to an unsustainable rate of growth. If growth in

economic output outstrips growth in demand, profitability falls, forcing businesses to reduce output. If the necessary adjustment is severe enough, it can be the type of economic downturn that results in recession and increasing unemployment. A timely increase in interest rates could help prevent such an outcome.

Bond market reality. With the US government running large budget deficits, the Fed must also be mindful of demand for the bonds that the Treasury issues to fund the deficit. For issues at longer maturities, the market determines rates by balancing supply and demand. Low short-term rates mean low yields on short-term securities. If the Fed keeps short-term rates artificially low for too long, it may crowd private buyers out of the short-term market. As time goes on, the Fed's actions to keep rates low could become inflationary. We also read a good deal about the importance of foreign buyers of US Treasury securities. If rates are too low, they may lose interest in buying US assets. Higher US rates also tend to support the US dollar in foreign exchange markets, in part because they support demand for US securities. The US dollar has in fact risen in recent weeks. For example, it traded on May 7 above 112 Japanese yen, having been below 105 at the end of March.

Restoring capacity for emergency intervention. The willingness of market participants to buy financial assets depends in part on the expectation that a ready market for those assets will exist whenever they decide to sell. Market crises can occur when too many sellers look for an exit at the same time, and buyers vanish. The recent history of US financial markets, going back to the stock market break of October 19, 1987, when the S&P 500 fell by more than –20% in a single day, shows that the Fed can cushion a market crisis by supplying liquidity when it's needed. At such times, holders of financial assets take comfort from the belief that with ample liquidity available, buyers can return, restoring market order.

With short-term interest rates at very low levels, the Fed is already supplying substantial liquidity to the market. If a crisis requiring still more liquidity occurred, it would be unclear how much more the Fed would really be able to provide. By raising short-term rates (and reducing the current flow of liquidity into the banking system), the Fed would increase its reserve capacity to intervene in a crisis.

Investor response

In the past couple of weeks the stock and bond markets have been moving in the same direction – down. That does not always happen; stocks and bonds often move in opposite directions. But at the moment, the stock market has been expressing concern that rising interest rates may hold down market valuations of stocks, and tighter monetary policy (a higher Fed Funds rate target) may remove part of the economic stimulus that has fostered the current economic recovery. At the same time, bond prices have also traded off sharply, signaling a more general increase in interest rates. In addition, the US dollar has recovered smartly against other major currencies, after several months of chronic weakness.

The drop in stock and bond prices over the last couple of weeks illustrates how the markets fold new information into securities prices. The Fed's statement on May 4 matched investor expectations, and the market barely moved. But the strong jobs report on May 7 changed investor expectations about how soon a "measured" change might begin and how fast it might unfold. The difficulty for investors is that it is impossible to know exactly which potential future events are now priced into the market. The best investors can do is assess the balance of risk and opportunity, and act accordingly.

After a strong run in the stock market over the past four quarters, many portfolios may be overweight in equities. This could be a good time to rebalance back to long-term policy targets. The risk in the equity market is reasonably well balanced between the possible effect of higher rates and the possible benefits of continued economic strength, and lower stock prices already reflect some increase in uncertainty, so moving to an underweight in equities could miss an upward move.

Investors with international equity holdings should consider the risk that along with higher interest rates may come a strengthening in the US dollar. This would put pressure on overseas holdings, so investors should consider underweighting international holdings.

For investors managing balanced portfolios, the interesting question is where to deploy non-equity assets. Yields on cash equivalents are still very low, so while allocations to cash have low risk, they offer returns likely to lag inflation. Fixed income remains an important component of many investors' portfolios, but the uncertainty in future interest rates argues for a fixed income posture with less than usual risk. The most direct way to accomplish this is to skew bond portfolios toward shorter maturities, which generally have less risk than longer ones. Recent rate moves have actually been helpful to this move – the yield curve table shows that the May 7 yield on the 5-year Treasury was higher than the March 31 yield on the 10-year. Investors wishing to achieve the same portfolio yield as at the end of March can now do so with significantly less risk.

Some investors have gravitated toward hedge fund investments, feeling that they are more likely than stocks and bonds to produce attractive returns in the near future. These investments, however, often have hidden risks. Investors should be particularly careful to examine their hedge funds' strategies to assess whether the types of positions they take are as likely to prosper in a rising-rate environment.

The Fed has clearly signaled its intention to begin raising interest rates soon, and recent moves in both the bond and stock markets appear to indicate that the markets also expect the move. Unanticipated events could derail the current direction Fed policy appears to be leaning. The Fed may also delay increasing rates longer than many in the market expect. But the Fed could probably raise the Fed Funds target to 1.25% at its June or August meeting without disrupting the market, because by now so many market participants expect such a move. A larger increase could come as a surprise to the market, and cause further drops in prices, particularly in the bond market.

The anticipation of interest rate increases is creating the type of market uncertainty that argues for a, well, measured reduction in portfolio risk. The areas in which investors might consider reducing risk are their overall asset allocation, their exposure to currency risk through international investments, and the interest rate risk in their bond portfolios. This is not to say that investors should eliminate risk in their portfolios – the current period of adjustment has served to remind investors that markets do sometimes go down, and often do so to bring opportunity and risk back into balance. The threat of rising interest rates is a result of gathering economic strength. Between the continuing strength of the economy and the increases in longer-term rates that have already occurred, market opportunities justify a reasonable, but not elevated, level of portfolio risk.

- Jonathan Tiemann
  Palo Alto

Source for performance data: S&P index returns: Standard & Poors; EAFE:; bond performance: yield data from US Treasury Bureau of the Public Debt; index returns from Lehman Brothers. Currency rates from www.x-rates.com

Copyright © Tiemann Investment Advisors, LLC 2004.