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Slow Growth or Inflation? The Federal Reserve's Dilemma

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Summary

Although Congress has granted the Federal Reserve (the Fed) broad operational independence, it retains oversight responsibilities to ensure that it meets its mandate. Congress has given the Fed a dual mandate to maintain maximum sustainable employment and price stability. At times, these goals can conflict. The economy may have reached such a point, with slow growth and rising inflation in 2008.

Economists are divided over whether the Fed has recently placed too much emphasis on responding to the economic slowdown at the risk of jeopardizing price stability. Since September 2007, the Fed has aggressively reduced interest rates and lent to the banking system to stimulate the economy and to stabilize the financial sector. These actions have been described as a "risk management approach" to monetary policy, in which low rates are employed to insure against low-probability but high-cost events, such as a financial crisis, even at the cost of higher short-term inflation. To date, an economic recession has been avoided, but inflation has accelerated. When the Fed believes the economy to be on sound footing, many expect it to gradually reverse much or all of the recent rate cuts since they maintain that, given economic conditions, current rates are inconsistent with price stability in the long run.

Some economists believe this monetary easing must be removed quickly to avoid a persistent and unwanted increase in inflation. Past experience suggests that once higher inflation becomes entrenched, costly reductions in economic output may be required to reduce it. Thus, some short-term loss of output may be seen as desirable in order to maintain long-term price stability. Other economists argue that current policy is appropriate because higher inflation is not a pressing problem. They argue that inflation has only risen because of temporary factors, there is enough slack in the economy to offset inflationary pressures, and inflationary expectations remain well grounded.

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Although Congress has granted the Federal Reserve (Fed) broad operational independence, it retains oversight responsibilities to ensure that it meets its mandate. Congress has given the Fed a dual mandate to maintain maximum sustainable employment and price stability. A policy of pursuing maximum sustainable employment would also tend to minimize the upward and downward swings in the business cycle. Price stability refers to a low and stable rate of price inflation throughout the business cycle. At times, these goals can conflict. The current environment appears to be one of those times.

Slow Growth

Figure 1 shows growth in real gross domestic product (GDP), by quarter, since 2000. Beginning with the fourth quarter of 2007, there appears to have been a significant slowdown in economic growth. The real GDP growth rate was 0.6% in the last quarter of 2007, and 1.0% in the first quarter of 2008. Between the beginning of the current expansion in the last quarter of 2001 and the third quarter of 2007 the growth rate had been 2.9%. Although the possibility of a recession has been widely discussed, thus far economic output has not fallen. There has been an increase in the unemployment rate, however, and employment has been falling modestly since the beginning of 2008. Recessions are not declared at their onset, so the recent changes in the labor market may be a sign one will be officially declared at some point in the future.

Economists have identified three main economic shocks that explain why the economy has slowed: rapid increases in the price of oil, significant declines in housing prices, and a "liquidity crunch."[1]

[1] These factors are discussed in more detail in CRS Report RL34484, *Evaluating the Potential for a Recession in 2008*, by Marc Labonte.

Figure 1. Growth in Real Gross Domestic Product

Source: Department of Commerce, Bureau of Economic Analysis.

Oil Prices. Changes in oil prices have a much greater effect on the economy than do changes in the prices of most other goods and services. A sudden increase in the price of oil has a direct effect on the cost of energy consumed by households. Energy accounts for close to 10% of the total market basket of prices measured by the consumer price index. Other things being equal, a large increase in the cost of energy can have significant effects on household budgets. Higher energy prices may encourage households to consume less energy as well as fewer of those goods and services whose prices are directly affected.[2] To the extent that energy takes up a larger proportion of household budgets, there will be less demand for other goods and services, reducing output and employment in the rest of the economy.

Energy is also an important input in the production of other goods and services. When its price rises, it pushes up production costs, raising prices and slowing demand. In response, production of those goods which require relatively more energy tends to fall, reducing both output and employment.

The effects of an oil price increase on output and employment are temporary, but it may take a while for the composition of both demand and output to adjust to the new price. In the short run, policymakers are still faced with a slowdown in economic growth and an increase in unemployment.

Housing Prices. Following years of appreciation, national house prices leveled off in 2006, and have since fallen. Falling prices had a substantial direct effect on residential construction. Since the first quarter of 2006 residential investment has reduced overall GDP growth by about 1% per year.

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[2] Households may also choose to pay higher energy costs by reducing saving instead of cutting back on other kinds of spending.

Falling house prices also influence household consumption via a "wealth effect." Households save in order to accumulate wealth to finance retirement as well as to be able to weather unforeseeable hard times. Asset appreciation may be seen by many households as a substitute for saving and so they may cut back on saving as their assets appreciate in value. This process may also work in the other direction. A decline in house prices may cause households to increase their saving and reduce their consumption spending, which would be a drag on the economy.

Some who bought or refinanced houses near the peak of the housing boom, and anticipated continued house price appreciation, may face some financial distress. If the values of their houses fall below the amounts of their loans and the interest rates on their mortgages go up, they may have limited refinancing options and less access to other kinds of credit. Households in that situation might be forced to consume less than they otherwise would.

The Liquidity Crunch. The decline in housing prices also had consequences for the financial sector. Partly because of falling house prices and high initial loan-to-price ratios, the rate of loan defaults increased. Falling prices led to higher default rates because homeowners could not rid themselves of loans they could no longer afford by selling their houses. Those loans might become unaffordable either because the borrowers barely qualified at the start and their economic situation deteriorated, or because they were adjustable-rate loans and borrowers could not afford the financing costs when the rate was raised.

The rising number of mortgage loan defaults caused the prices and liquidity of mortgage-backed securities (MBS) to fall and those financial institutions that held them to suffer significant losses. This had a direct effect on the availability of credit in mortgage markets, and also spread beyond mortgage markets to affect the overall availability of credit. Demand for Treasury securities rose in a "flight to quality," and that tended to push up interest rates for other kinds of credit. Liquidity dried up in several asset markets, retarding efficient financial intermediation.[3]

Accelerating Inflation

Coincident with the slowdown in economic growth, the inflation rate has been accelerating. **Figure 2** shows two commonly cited measures of inflation. One line shows the annual rate of change in the all-items consumer price index for all urban consumers (CPI-U). This measure is sometimes referred to as "headline" inflation. The other line tracks the all-items index less food and energy prices. Both of these show the annualized six-month rate of change. The index less food and energy prices is sometimes used in an attempt to discern the underlying trend rate of inflation, which may be masked, over short periods of time, by changes in food or energy prices, which tend to be more volatile than the prices of other categories of goods and services. Change in the index which leaves out food and energy prices is sometimes referred to as the "core" rate of inflation.

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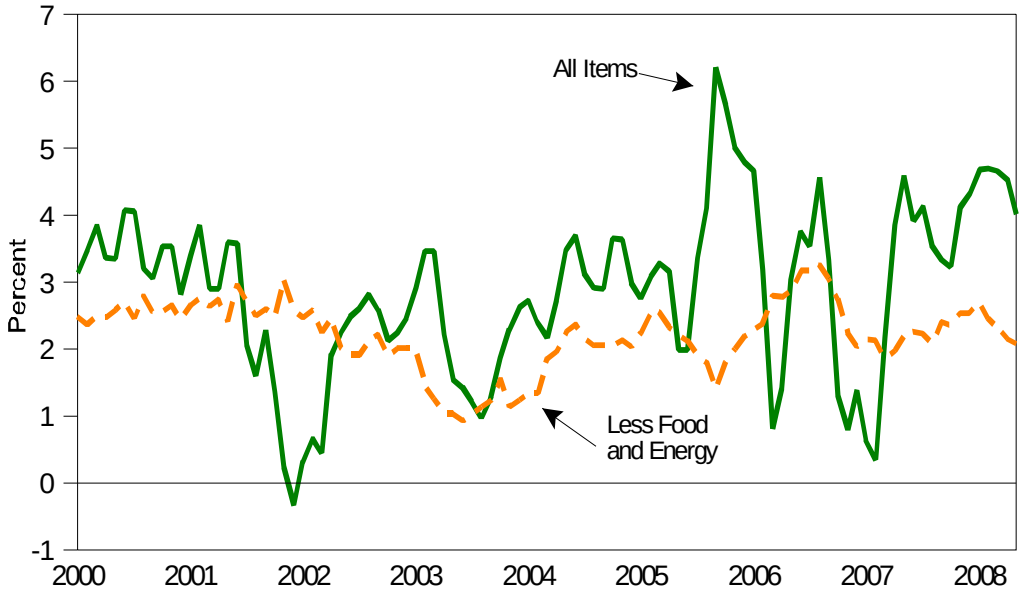
[3] See CRS Report RL34182, *Financial Crisis? The Liquidity Crunch of August 2007*, by Darryl Getter, Mark Jickling, Marc Labonte, and Edward Murphy.

Figure 2. Consumer Price Inflation



Source: Department of Labor, Bureau of Labor Statistics.

As the chart shows, changes in the all-items index are much more variable than are those in the core index. It also indicates that change in the core index now is not much above what it has been for much of the period since 2000. The all-items measure of inflation, however, is higher now than it has been for most of the last eight years and shows an upward trend since 2005. It is this increase in overall inflation that is becoming more of a concern for the Federal Reserve.[4]

Recent Fed Policy

The Fed influences economic activity by changing its target for the federal funds rate, an overnight inter-bank interest rate. When the Fed lowers the federal funds rate, it leads to increases in interest-sensitive spending, which includes business capital investment in plant and equipment, residential investment spending (house building), and consumer spending on certain durable goods (such as automobiles). Lower interest rates would also be expected to reduce the foreign exchange value of the dollar, all else equal, which would tend to boost exports and import-competing goods. As a result, overall spending in the economy rises, as does inflation. When the Fed raises the federal funds rate, overall spending and inflation tend to fall.[5]

Since September 2007, the Fed has aggressively lowered the federal funds rate from 5.25% to 2%, as of the June 2008 Federal Open Market Committee (FOMC) meeting. Believing that traditional monetary tools were not adequately reviving financial activity in light of the liquidity crunch, the Fed has also recently created

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[4] Another concern is that the large depreciation in the dollar in recent years will result in higher import prices that will feed through to higher overall inflation.

[5] For an overview, see CRS Report RL30354, *Monetary Policy and the Federal Reserve*, by Marc Labonte and Gail Makinen.

several new facilities in order to lend directly to the banking system, and for the first time since the 1930s, the investment banks.[6]

One useful framework for understanding the current stance of Fed policy is the "risk-management approach" described in 2004 by then-Fed Chairman Alan Greenspan. As Greenspan explained it,

> Given our inevitably incomplete knowledge...a central bank needs to consider not only the most likely future path for the economy but also the distribution of possible outcomes about that path.[7]

For example, if the economy faces the risk of a severe economic downturn, then the Fed would, using this approach, take precautionary steps to prevent it even if there were only a low probability it would occur. In current Chairman Ben Bernanke's words,

> Greenspan's risk-management approach sensibly reflects the fact that the entire distribution of possible outcomes, not just the average or most likely expected outcome, matters for policy choice.[8]

This approach appears well suited to explaining recent Fed actions. Turmoil in financial markets could have led to a financial crisis that would have caused a sharp contraction in output throughout the economy and resulted in a sharp increase in unemployment. A scenario where financial turmoil resulted in crisis may not have been the most likely outcome, but the Fed nevertheless responded with a sharp easing of policy to prevent it — more easing than would have been expected based on past experience.[9] If that explains current policy, expected inflation is likely to be somewhat higher than desirable as a result since policy is not based on the most likely outcome. A policy approach focused on the most likely outcome might have called for a more modest monetary easing instead since headline inflation has recently been above the Fed's self-defined "comfort zone" and rising. The Fed has tended to focus on core inflation (which omits food and energy) in recent years for policymaking purposes, however, and this measure has been more stable.

With a federal funds rate that is currently lower than the inflation rate, the cost of overnight bank borrowing is negative in real (inflation-adjusted) terms. If this policy were to persist, inflation would continue to accelerate, and this would conflict with the Fed's goal of price stability. The June 2008 meeting was the first since September 2007 that the federal funds rate was not reduced (it was kept constant). In the statement issued after the June meeting, the Fed said, "Although downside

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[6] See CRS Report RL34427, *Financial Turmoil: Federal Reserve Policy Responses*, by Marc Labonte.

[7] Alan Greenspan, "Risk and Uncertainty in Monetary Policy," remarks at the Meetings of the American Economic Association, San Diego, California, Jan. 3, 2004.

[8] Ben S. Bernanke, "The Logic of Monetary Policy," remarks before the National Economists Club, Washington, DC, Dec. 2, 2004.

[9] Based on a statistical analysis presented in Bank of International Settlements, *78th Annual Report*, June 2008, p. 62.

risks to growth remain, they appear to have diminished somewhat, and the upside risks to inflation and inflation expectations have increased."[10] It is widely expected that the Fed will begin to reverse recent interest rate reductions once it believes that the threat of a recession has passed. But the right time to begin monetary tightening has been widely debated.

Economists sympathetic with the risk management approach have applauded the Fed's aggressive rate cuts and the creation of new lending facilities. They argue that without them, the probability of financial crisis would have been too high, and the housing crash would likely have been deeper. They caution that it is too soon to raise rates because financial markets are still fragile, with demand for mortgage-backed securities and other high-risk securities still depressed and financial institutions unable to withstand another market decline. They believe the economy to be in (or close to) a recession in 2008,[11] and argue that rate increases should be postponed until economic growth is on a sound footing again. They argue that the recent rise in inflation will not persist because a weak economy will depress inflationary pressures. Normally, inflation decelerates in a recession as workers respond to rising unemployment by lowering their wage demands and firms respond to falling demand by lowering product prices. (Ironically, this means if Fed policy succeeds in avoiding a recession, it raises the likelihood that inflation will become a problem.)

Other economists have argued that the Fed should begin to raise interest rates soon — or should have already started. They argue that the Fed should not focus too much on avoiding economic downturns when it jeopardizes price stability. There is only so much that the Fed can do to offset recessionary pressures. Even if the economy were to enter a recession, it has shown the ability to bounce back in the past. In the current case, some might argue that the large market adjustments now underway in housing and financial markets must run their course, and there is nothing the Fed can do to insulate the economy from these forces.

In contrast, they argue that price stability is a precious commodity that once lost can be difficult to gain back. For example, the 1970s are remembered as the decade of "stagflation," when high inflation became so ingrained that it remained high even when economic growth was sluggish.[12] It was not until Paul Volcker became chairman that the Fed decided to stamp out inflationary pressures at any cost. The federal funds rate rose to record highs, and inflation did not fall to low levels until the economy had suffered its worst recession since the Great Depression. Thus, some would argue that a mild recession today would ultimately be less costly than if inflation were allowed to get high enough that a deeper recession would be needed to get it to fall again.

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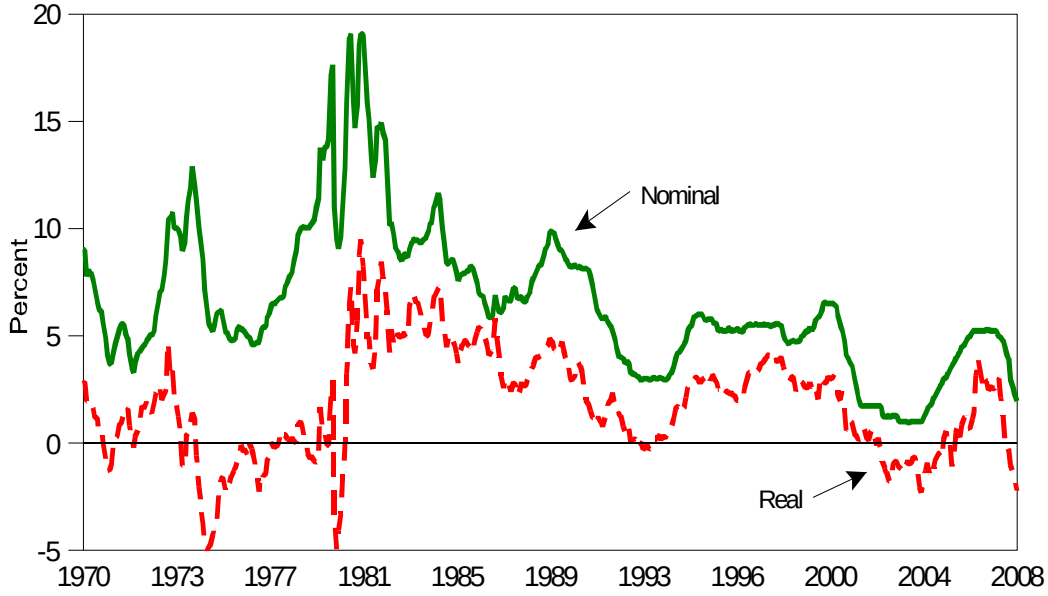
[10] Federal Open Market Committee, Federal Reserve Board of Governors, press release, June 25, 2008.

[11] See CRS Report RL34484, *Evaluating the Potential for a Recession in 2008*, by Marc Labonte.

[12] See CRS Report RL34428, *Understanding Stagflation and the Risk of Its Recurrence*, by Brian W. Cashell and Marc Labonte.

According to mainstream economic theory, the persistently high inflation of the 1970s was caused by the Fed's decision to set a federal funds rate target that was consistently negative in real terms (i.e., lower than the inflation rate) from 1974 to 1977, and again in 1979. As **Figure 3** illustrates, the only other time that the inflation-adjusted federal funds rate has been consistently negative since 1970 was from the end of 2002 to 2005, and again since the beginning of 2008. Negative federal funds rates were not as negative in this decade as in the 1970s, however.

Figure 3. Federal Funds Rate in Real and Nominal Terms



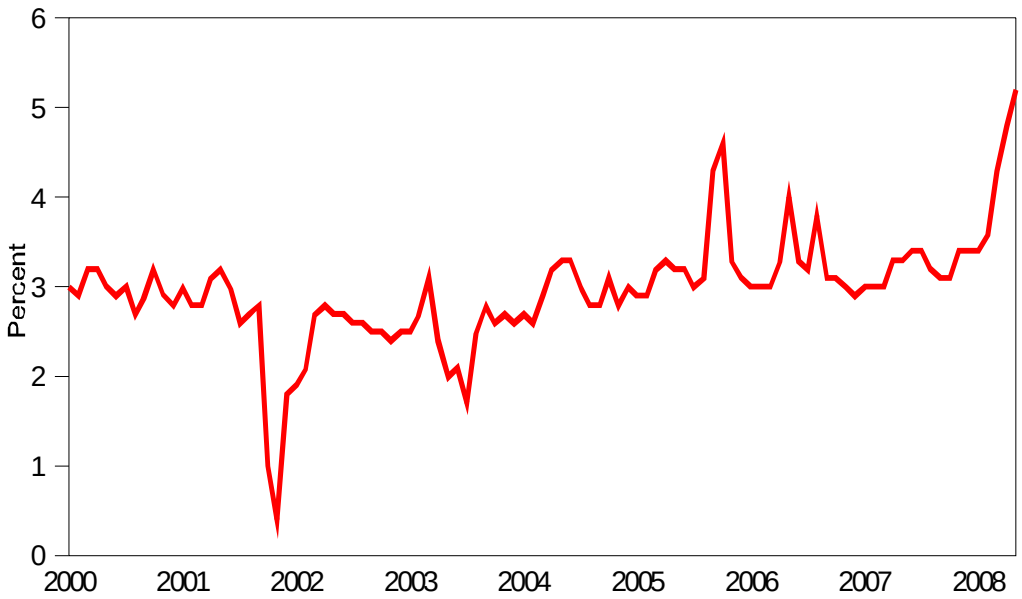
Sources: Board of Governors of the Federal Reserve System; Department of Labor, Bureau of Labor Statistics.

Notes: Nominal federal funds rate is the market rate. Real federal funds rate is the market rate less actual consumer price index.

Inflation Expectations. Economists have pointed to inflationary expectations as an important reason why it was so costly to stamp out the high inflation of the 1970s. Once households and investors begin to expect inflation to be high, it can take a drastic change in policy and economic conditions to convince them that Fed commitment to lowering inflation is credible. On the other hand, if the public believes that the Fed is committed to low inflation, then inflationary expectations may not rise quickly when the Fed lowers interest rates in response to negative economic shocks. If the Fed keeps interest rates low for too long, however, inflationary expectations may begin to rise again. If that were to happen, any attempt in the future to reduce inflation might well be more costly.

A temporary rise in the measured inflation rate becomes a more difficult policy problem if that higher rate comes to affect the rate of inflation that is expected in the future. Inflation expectations affect investment decisions as well as wage negotiations in labor markets. The Survey Research Center at the University of Michigan asks consumers each month what they expect the inflation rate to be over the next 12 months. **Figure 4** shows the median expected price change from that survey.

Figure 4. Expected Price Change for the Next 12 Months



Source: University of Michigan, Survey Research Center.

As the chart shows, the survey suggests a recent spike in the expected rate of inflation. The history of this survey also shows that this has happened in the past without proving to be a permanent shift in expectations. If, however, even part of the recent spike persists, that will present a complication to the Fed in its efforts to maintain a low and stable rate of inflation. Another measure of inflationary expectations, the difference between the yield on inflation-indexed and non-indexed Treasury bonds, does not yet show a similar spike.[13]

The Policy Dilemma

The recent upward trend in overall inflation has been driven by rapid increases in food and energy prices. Price shocks like these leave the Fed with a dilemma — should they tighten policy to offset the inflationary effects of these shocks, or ease policy to offset the negative effects of the shocks on growth? In recent years, the Fed has focused more on keeping core inflation (which excludes food and energy prices) stable, and tolerated increases in headline inflation.[14] In the current context, the Fed

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[13] Economists at the Federal Reserve Bank of Cleveland argue that the difference between nominal and inflation-indexed Treasury bonds is an imperfect measure of inflation expectations. After adjusting the return on the indexed bonds for inflation risk and different degrees of liquidity, they find a recent increase in inflation expectations. See "TIPS Expected Inflation Estimates," Federal Reserve Bank of Cleveland, available at [http://www.clevelandfed.org/research/data/tips/index.cfm].

[14] Other central banks may focus more on headline inflation. The European Central Bank, for example, increased its benchmark interest rate by a quarter of a percent, to 4.25%, on July 3, 2008, in order to combat inflation there. George Frey, "ECB raises key rate to 4.25%," Associated Press report, available at [http://biz.yahoo.com/ap/080703/

has not seen higher food or energy prices as a reason to reverse its policy of monetary easing. As was shown in **Figure 2**, a long period of rapidly rising energy prices resulted in a number of years where headline inflation was higher than core inflation.

The Fed's rationale for allowing headline inflation to rise above its comfort zone is its belief that one-time increases in inflation caused by food or energy shocks will have no lasting effect on future inflation. The Fed might argue that the inflationary effects of these types of shocks are largely beyond its control, and therefore should not be taken as a sign that it is neglecting its price stability mandate.[15] Critics argue that price shocks lasting for years should not be considered transitory, and persistently accommodating these shocks will eventually raise inflationary expectations and feed through to higher core inflation. After all, goods related to food and energy are a significant portion of the average household's budget. To date, core inflation has shown only a slight increase. Thus, an evaluation of whether the Fed has paid sufficient attention to the price stability part of its mandate depends mainly on which measure of inflation is appropriate for policy purposes. Some studies have cast doubt on the idea that increases in headline inflation will not persist as long as core inflation remains stable.[16]

The choices facing the Fed today can be compared to those of the 2001-2003 period. A mild recession in 2001 was followed by an initially sluggish recovery in which employment did not start rising until the second half of 2003. From 2001 to 2003, the Fed reduced the federal funds rate to 1%, where it remained until June 2004, when the Fed felt confident that the economic recovery was self-sustaining. It then gradually began raising the federal funds rate, which remained negative in real terms until 2005. While prolonged monetary stimulus may have ensured that the nascent economic recovery did not peter out, in hindsight critics have argued that low rates helped spark a housing bubble which is largely responsible for the economy's current predicament. If the Fed had started raising rates earlier, then inflation might not have shown the upward trend it did from 2003 to 2005. If the Fed waits too long to raise rates at present, they argue, the current inflationary trend may feed into expectations of future inflation and become more difficult and costly to reverse.

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[14] (...continued)
europe_interest_rates.html].

[15] There has been some debate on whether the rise in food and energy prices should be considered a strictly exogenous shock or partly influenced by the Fed's monetary policy. The general upward trend in food and energy prices has been largely determined by world supply and demand. Most analysts have concluded it is because the supply of food and energy has been growing more slowly than demand, with the biggest increases in demand occurring in rapidly growing developing economies. Demand-driven price increases can be caused by the world economy growing at an unsustainable pace. But if that were the case, the Fed's monetary policy would be only one small part of that story. According to the International Monetary Fund (IMF), world overall inflation has risen from 3.6% in 2006 to a projected 4.7% in 2008.

[16] For the debate on whether core or headline inflation is more appropriate for policymaking, see CRS Report RS22705, *Inflation: Core vs. Headline*, by Marc Labonte.

Even if the Fed has correctly responded to current economic weakness, a case can be made that the current policy dilemma could have been avoided (or at least made more palatable) if the Fed had not previously allowed inflation to climb during the economic expansion. Had inflation been lower when the economy slowed in 2007, the Fed might arguably have been able to implement the monetary stimulus it did without having to worry about its inflationary effects.

Conclusions

In recent weeks, fears of a financial crisis or that the U.S. economy will enter a recession have somewhat subsided. As a result, some economists have shifted their emphasis more toward the possibility that inflation is currently on a higher than desired path. Hindsight is 20/20, and if inflation proves to be a bigger concern than economic weakness, it is not proof that the Fed eased policy too much. The potential fallout from the liquidity crunch was uncertain and could have been severe. Higher than optimal inflation today may have been a price worth paying to avoid a worst case scenario.

As the threat of financial turmoil subsides, however, there is the danger of complacency about rising inflation. It may be some time before the Fed feels confident that the economy is steadily expanding again, and it may decide to leave interest rates low in the meantime. But lags between higher interest rates and their effects on the economy may not give the Fed the luxury to wait and see. There is a fear that inflation could accelerate further, as happened the last time the Fed kept the federal funds rate low, earlier in the decade. While acknowledging that the risk of recession has not passed, it may be less costly to bring inflation down now than in the future.

An evaluation of whether the Fed has maintained price stability depends, first of all, on whether one accepts the primacy that the Fed has given to core inflation for policymaking purposes. Overall inflation has recently risen to levels that many would deem unacceptably high, but core inflation has remained relatively stable.