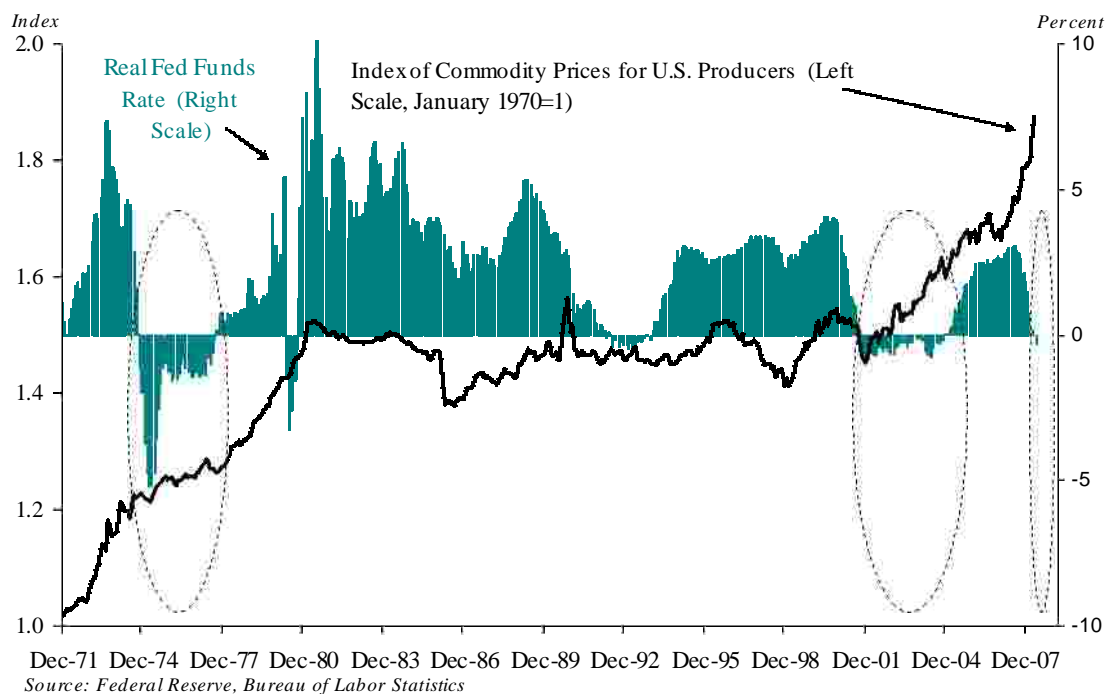


The Rising Costs of Low U.S. Interest Rates

The Federal Open Market Committee's (FOMC) decision to drastically reduce interest rates over the past year may be viewed positively in hindsight because it prevented a collapse of the U.S. credit markets. But it is more likely that this decision will be remembered for the toll it exacted on the U.S. economy and global markets. After tightening monetary policy for two years, from June 2004 to June 2006, the decision by the FOMC in the autumn of last year to reverse course seems to have provided some short-term relief to U.S. financial institutions and credit markets. But it also has significantly raised the long-term costs and challenges of restoring price stability in the consumer goods and financial markets.

When the FOMC first started to tighten monetary policy in June 2004, restoring price stability already seemed like a difficult goal for two main reasons. First, the real federal funds rate (the fed funds rate minus the year-over-year increase in the core consumer price index) had been in negative territory for 33 months. This had been the longest period marked by negative real interest rates since the mid-1970s when the federal funds rate hovered below the rate of core inflation for 34 months (*see highlighted areas in Figure 1*).¹ Second, commodity prices were rising at the fastest pace since the mid-1970s. In June 2004, commodity prices had risen, on average, 13.5 percent in real terms over the previous 12 months. And for the 20 months prior to the first rate hike, there had been consecutive, year-over-year increases, averaging 11.0 percent.

Figure 1. Economic Growth, Low Real Interest Rates and Rising Resource Prices



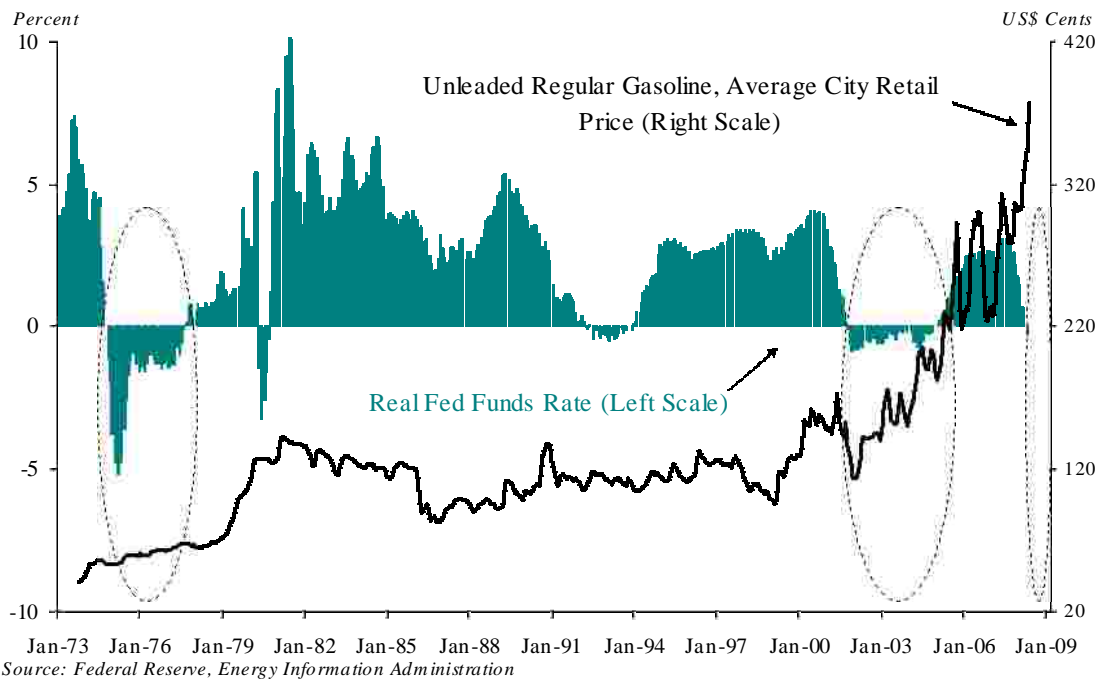
¹ In the three years following this period, the rate of inflation more than doubled. From September 1977 to June 1980, core consumer prices accelerated from 6.0 percent to 12.7 percent, on a year-over-year basis.

As the FOMC raised the federal funds rate in 25-basis point increments during this period, from 1.00% to 5.25%, progress was made. Real price increases for key commodities (petroleum, agricultural and industrial metals) in the U.S. decelerated, registering a year-over-year increase of just 5.4 percent by June 2006. And for the subsequent months until July 2007, prices for key commodities either registered small year-over-year increases or declined.

Nevertheless, beginning in September 2007, all of these gains started to slip away. In response to the first signs of an economic deceleration and severe liquidity shortfalls in the US credit markets, the FOMC reversed nearly all of its previous rate hikes in less than half the time it took to make them, by lowering the federal funds rate from 5.25% to 2.00% over the period September 2007-April 2008. As a result, goods prices reaccelerated; commodity prices, notably crude oil, surged; and the dollar depreciated sharply vis-à-vis most other major currencies. For the 12-month period ending May 2008, real prices for key commodities in the U.S. jumped 31.9 percent, compared to a 0.8 percent increase for the period ending May 2007.

Although current and historic data show a strong link between low real interest rates and sustained increases in commodity prices, there has not been much talk about how easy money may be the main factor continuing to drive energy, as well as other commodity, prices higher. Instead, the focus has been almost exclusively on external factors: China, commodity speculators, U.S. oil companies and Iran, just to name a few. Certainly, these are important considerations, but none of them alone can determine prices in the long run.

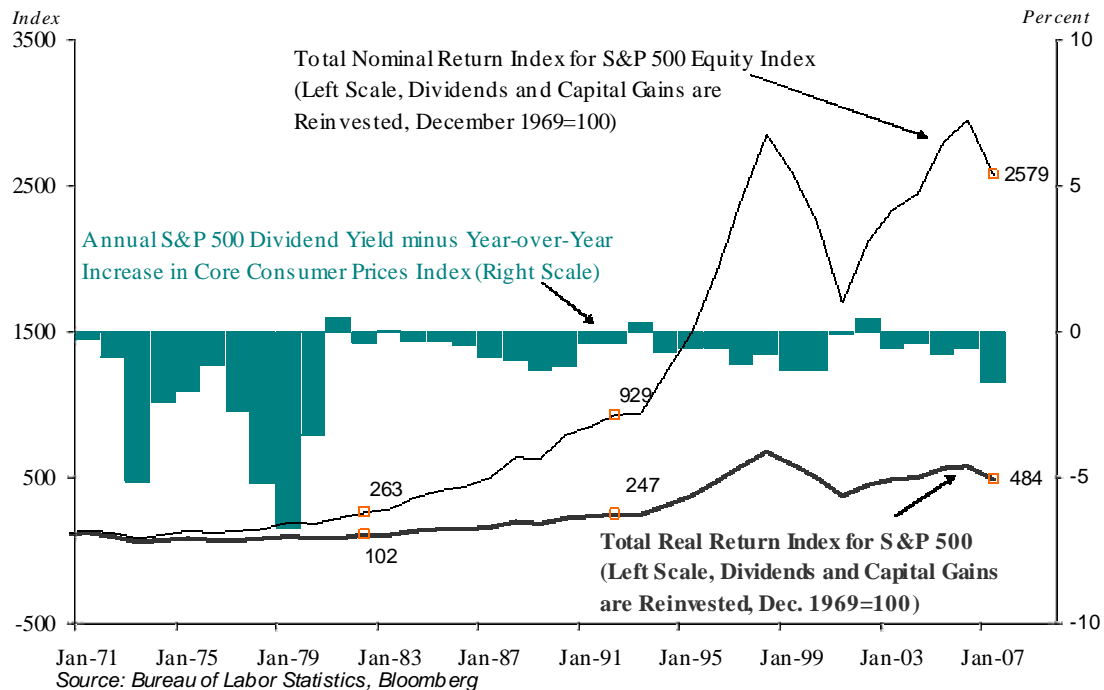
Figure 2. The Seeds of Stagflation – Cheap Money, Strong Demand & Rising Prices



Empirical and theoretical research shows that commodity price increases can be modeled as monetary phenomena. Barsky and Kilian (2000) make the case that most of the

kindling for the Great Stagflation of the 1970s was accommodative monetary policy.² It was not the two major oil price increases of 1973-74 and 1979-80 that ignited a surge in prices and ultimately led to a period of stagflation. Rather, the sustained rise and the later spikes in the price of oil and other commodity prices during the 1970s came “on the heels of shifts in the demand for oil” that were “directly or indirectly fueled by monetary expansion.”

Figure 3. U.S. Equities are a Poor Hedge against Inflation



Nevertheless, the current consensus view is that the FOMC can use monetary policy to first combat a potential slowdown and then turn its attention to taming any residual inflationary pressures. This appears sensible, at first glance. Accommodative monetary policy and rising resource prices are not necessarily a recipe for disaster. There are stages of a commodity price boom, and the subsequent effect it has on prices and output in the broader market may be marginal. In fact, during the initial stages of a business cycle, demand for oil and other commodities tends to be a natural, healthy outgrowth of greater economic activity and rising equity share values.

Every price rally, though, contains the seeds of its own destruction. And if not only left unchecked but actually encouraged to grow due to loose monetary policy, commodity price rallies can quickly turn into bubbles that lead to sharp declines in commodities and other financial markets, which had been supported by strong investor risk appetite. Kilian and Park (2008) note that demand in the crude oil market can eventually mutate into a

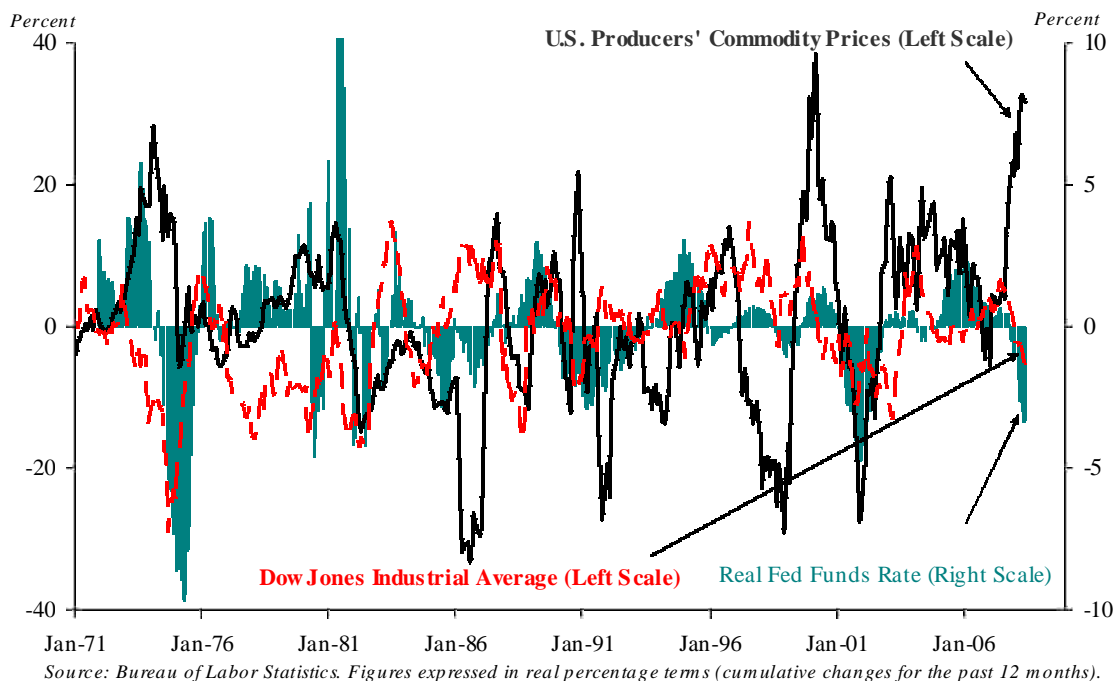
² For an in-depth analysis, please see Barsky, R. B., Kilian, L., A Monetary Explanation of the Great Stagflation of the 1970s. NBER Working paper, 7547. <http://www.nber.org/papers/w7547>

“precautionary demand driven by concerns about future crude oil supply shortfalls” which can have a large negative impact on equity markets.³

According to their analysis, rising oil prices that occur as a result of an “unanticipated global economic expansion” have a positive impact on U.S. equity market returns within the first year. And these equity market gains may be sustained for many years if the demand for oil remains constructive. The negative effect comes later and with a longer delay. During the current oil price rally, they argue that the equity market rally from 2003 to 2006 coincided with a period of industrial expansion and a concomitant rise in oil demand. From 2007 to the present – a period not covered by these authors – it seems less likely that oil demand has been driven solely by a continued expansion in industrial activity.

Especially since mid-May of this year, crude oil markets have taken on a life of their own, by continuing to register gains despite signs of weaker economic growth globally and a sharp decline in equity markets (*See Figure 4*). Over this period, crude oil prices have risen by more than US\$20, to US\$145 per barrel for the near-dated light crude oil future traded on the NYMEX, while the S&P 500 equity index has declined by more than 13 percent.

Figure 4. Despite Sharp Equity Market Declines, Commodity Prices Surge



Short-term U.S. interest rate markets are clearly out of sync with broader economic and market conditions, and they are creating more market volatility, rather than less. Any benefit that artificially low interest rates may have for U.S. credit markets is being

³ Kilian, L., Park, C., The Impact of Oil Price Shocks on the U.S. Stock Market. CEPR Discussion Paper 6166. <http://ideas.repec.org/p/cpr/ceprdp/6166.html>

outweighed by rising inflation expectations, negative real returns on many asset classes and, in turn, a surging demand for commodities that is out of step with investors' future growth expectations. If short-term interest rates are left at this level indefinitely, there may be a continued rise in commodity prices and a related decline in equity market values. This could put pressure on not only the Federal Reserve but also many other central banks, especially those in the developing world with currencies pegged to the dollar, to retighten monetary policy by far more than what was first seen in the U.S. from June 2004 to June 2006. The second likely scenario involves the Fed initially staying sidelined as well, but with investors not following the Fed's script and instead starting to aggressively sell medium- and longer-dated U.S. Treasuries to reflect rising inflation expectations. Under this scenario, commodities will reverse recent gains, and U.S. equity markets will begin to stabilize.