Markets, Money And Inflation

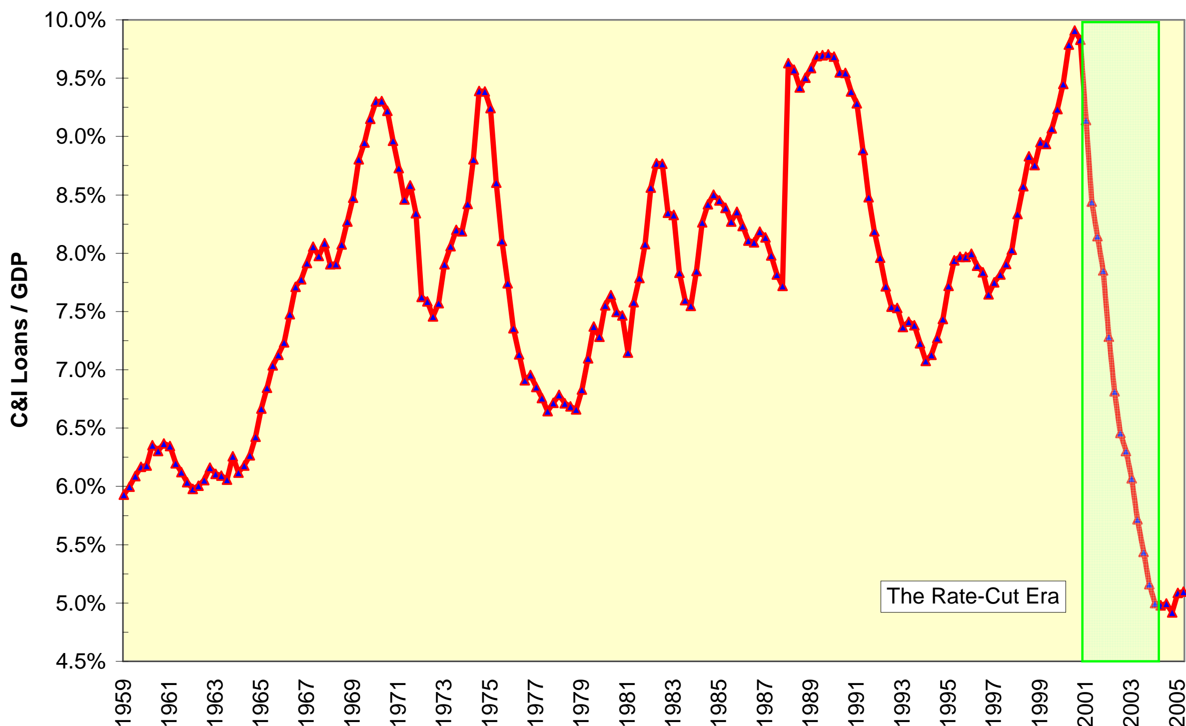
A common question in our consumer culture is "where did the money go?" Less commonly asked, perhaps because it occurs on a macroeconomic stage, is "from whence did this money come?"

If a Columnist Conversation from last Friday is any indication, and if we can view *RealMoney* contributors as a microcosm of the market, there is some intelligently designed confusion on the matter. Too many of us believe the Federal Reserve creates money through its open market operations, the buying and selling of Treasury securities. This is certainly a contributory factor, but it is only part of the story.

The Federal Reserve's open market operations affect the level of free reserves in the banking system. It is the lending of these free reserves throughout the banking system that expands the supply of credit. If member banks have to keep a 10% reserve against their assets, each additional dollar of free reserves can expand the money supply by a multiplier of 1/(1-.9) each time it is re-lent.

This is a nice little textbook fiction in many ways. Much of the world's banking and credit activities take place offshore, where reserve requirements may even be zero, or through notional derivatives where few actual dollars change hands. As noted here in a November 2003 column on this very same subject, commercial and industrial loans as a percentage of GDP have declined from 9.91% of GDP during the third quarter of 2000 to 5.1% at the end of June 2005.

Corporate borrowers can raise funds directly in the commercial paper market, or they can borrow outside the U.S. and swap the proceeds into dollars. In addition, the world's credit demands for new plant and equipment increasingly are outside of the U.S. Instead of borrowing, building and producing domestically, it may be cheaper to produce outside of the U.S. and import the finished goods. This is a larger topic for another day.

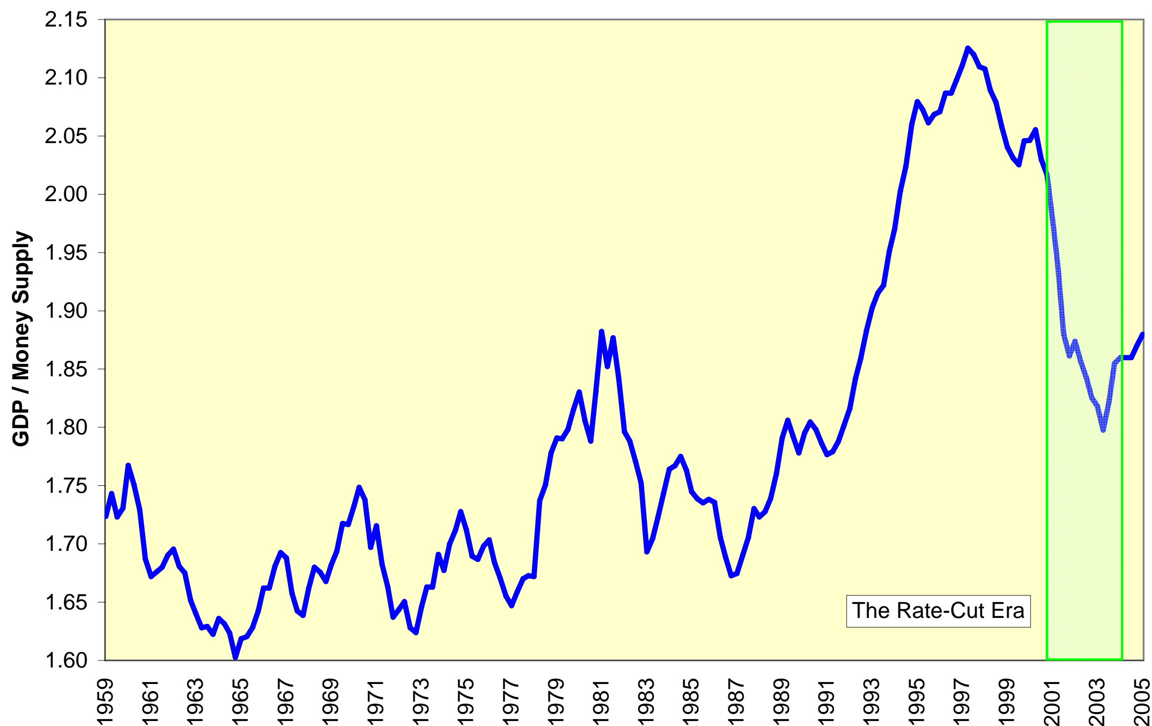


Velocity

The Federal Reserve's grand experiment in rate-cutting is noted on the chart above. If lower short-term interest rates stimulated lending during this period, the Federal Reserve would not have been warning us about the dangers

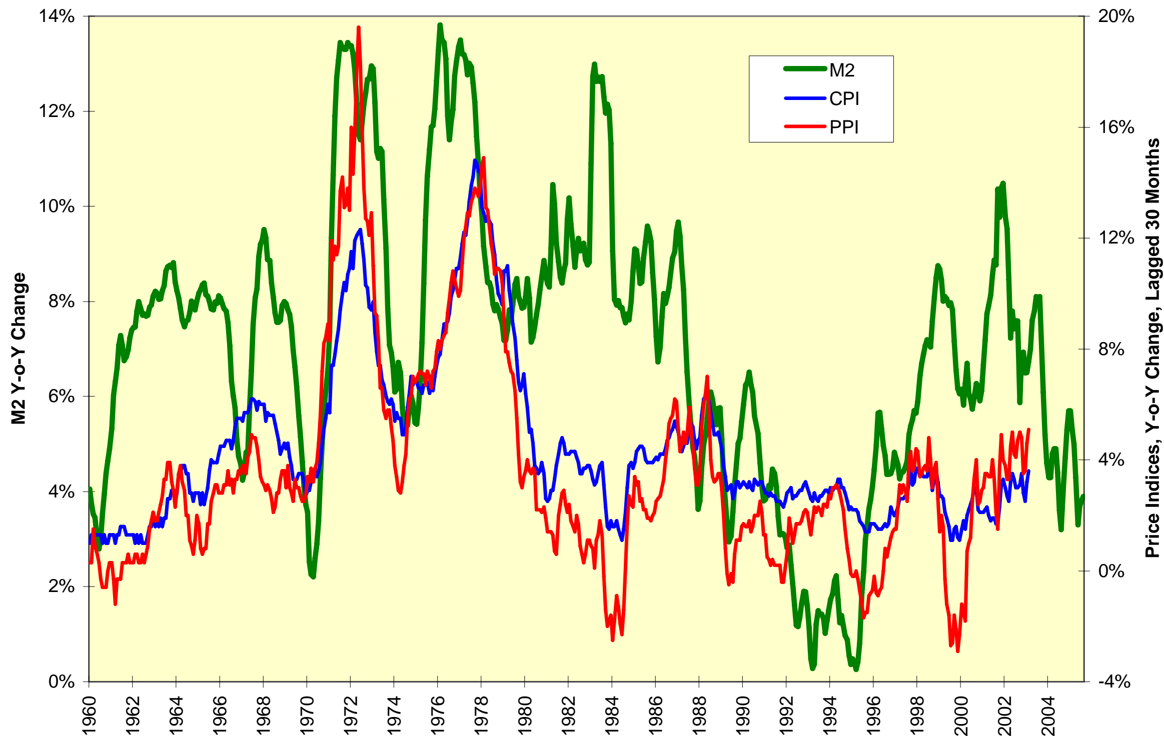
of deflation in May 2003, more than two years after the cuts began. The Federal Reserve was doing its best to expand the money supply and even target a higher level of inflation, but the banking system did not cooperate. This helps explain why we had no inflationary outbreak in the price indices during this period; we can argue whether we have had asset inflation in commodities, real estate or stocks.

The velocity of money confirms the same picture seen above. Velocity is the ratio of GDP to the money supply, or how many times a dollar turns through the economy during the course of a year. The velocity of M2, the measure of the money supply inclusive of currency, demand deposits, saving accounts, certificates of deposit and money market mutual funds, declined sharply as the rate-cut era got underway. That we did not have a severe and protracted economic downturn in this period must mean the rate of money supply growth had to decelerate rapidly during this period despite the Federal Reserve's intentions.



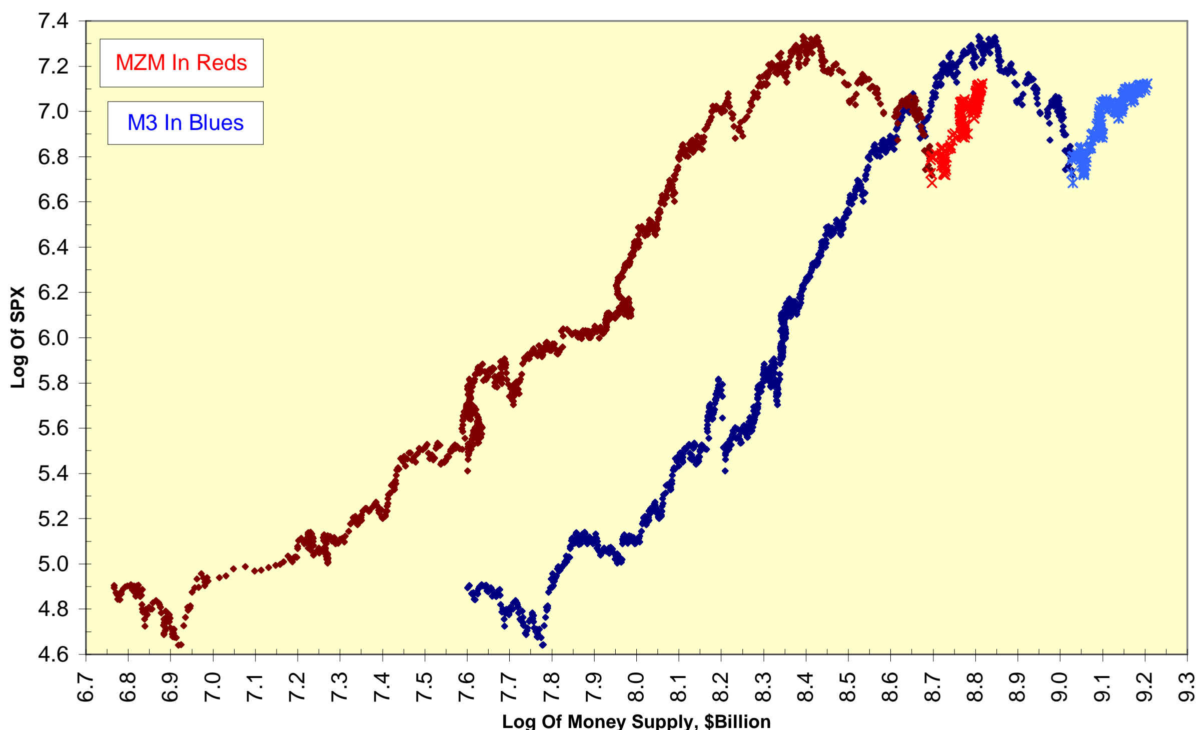
Inflation

If we define inflation as too much money chasing too few goods and services, it stands to reason that money supply growth in excess of GDP growth will put upward pressure on the price indices after an appropriate "long and variable" lag. Let's take the year-over-year growth rate in M2 and compare it to the growth rates of the PPI and CPI 30 months hence. These lead times are highly irregular; for example, the money supply grew rapidly during the 1984 and again in 1999-2000 without triggering a subsequent bout of inflation. Its growth rate at the end of August was a mere 3.9%, a level most likely below the growth of nominal GDP. Is this constrictive of the economy? We will not know until it is way too late to do anything about it; today's monetary conditions will not affect the economy until nearly two years from today, by which time the world will look very different.



Impact On Stocks

Now let's ask the question that really matters to investors: Does any of this make a difference to stock prices? Prior to the stock market's peak in 2000, the presumption would have been yes. If we map the S&P 500 against both M3, which is M2 plus institutional money market funds, Eurodollars, repurchase agreements and large time deposits and MZM, the St. Louis Federal Reserve's measure of zero-maturity money, we can see a linear relationship of growth rates. Once stock prices turned lower between March 2000 and October 2002, the money supply measures continued to expand. Finally, the post-October 2002 relationship, marked in lighter shades of red and blue on the charts, are moving upwards together again.



The conclusion is one we have arrived at many times before: Either a relationship between two variables exists in all environments or it does not exist at all, barring of course the overwhelming influence of additional variables. Was there such an overwhelming influence during the bear market as to disrupt the longstanding and now-restored relationship between stocks and money? Yes, the downturn in monetary creation in the banking system and the related concept of velocity. This downturn and the weak stock market of the period were the result of excess capacity after the bubble burst and occurred despite the best efforts of the Federal Reserve to combat it.

Similarly, the high level of money supply growth and inflation we saw during the 1970s and early 1980s occurred in spite of the Federal Reserve's best efforts to contain both.

Blaming the Federal Reserve for everything is the easy course of action, and given their proclivities to take credit for everything under the sun, they certainly invite such remonstrations when things go wrong. But the creation of money and credit is far more complex than that, and it does not have immediate and linear impact on either the economy or financial markets.