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# Is the Financial Crisis Causing a Recession?

John A. Tatom

It's official, the U.S. entered a recession a year ago in December 2007. The National Bureau of Economic Research, the official arbiter for dating business cycle developments, announced on December 6, 2008 that the economy had reached a peak in December 2007, following a long expansion that began in November 2001. Coming in train with a foreclosure crisis that began in late 2006 and its associated financial crisis that began in August 2007, there is a tendency for analysts to attribute the recession to the financial crisis. Did the extreme conditions in financial markets since September 2008 cause and/or worsen the recession, or were there other causes? Knowing the cause(s) of the current recession could be essential to determining how much longer and deeper the current recession could be.

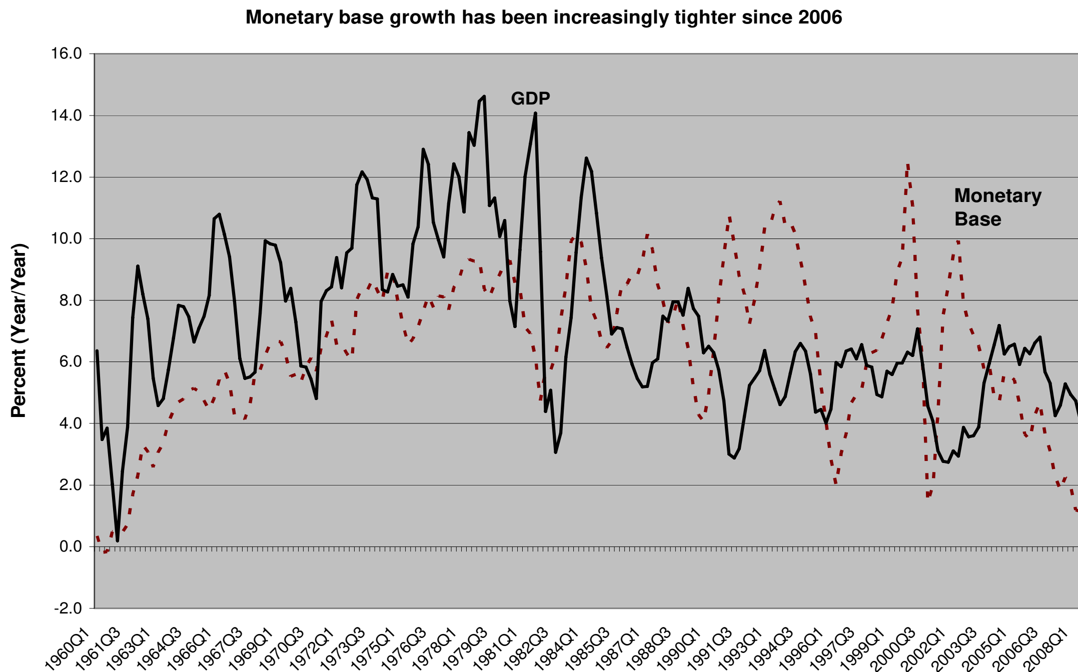
The worst aspects of the financial crisis that attract attention today did not begin until September 2008, when credit markets were said to seize up or freeze, according to the metaphor of the moment, and several financial institutions, mainly investment banks and not commercial banks, failed. This was well after the recession actually began and so is a poor culprit for the cause of the latest recession. Perhaps the latest worsening of the financial crisis is a cause of recession, however, and will extend the current one, caused by other factors well into the future. On the other hand, other factors that might account for the recession, or even factors related to the financial crisis, could portend the imminent end to the current recession.

**Did the Federal Reserve cause the recession?**

A leading candidate for the cause of the current recession is the Federal Reserve (Fed). The Fed has caused every post-world war II recession, according to most experts, especially Milton Friedman. For example, this conclusion is explained in the leading college money and banking textbook, Mishkin (2004). According to this view, every recession over the period has been associated with a sharp slowing in money growth and every sharp slowing in money growth has been followed or accompanied by recession. The latest recession is no different. In late 2006 there already were signs of a sharp slowing in money growth in place portending recession; see Tatom (2006). This slowing only got worse and lasted until September 2008. The foreclosure crisis was reinforced by the slowing in money growth that also ended the rapid appreciation which investors had counted on to make their housing investments profitable. Moreover, monetary slowing also tightened credit growth for housing purchases, making it more difficult for existing owners to refinance and for new purchasers to obtain credit to buy houses.

Figure 1 shows the growth rate of the Federal Reserve Board of Governors' measure of the monetary base, adjusted for reserve requirement changes, since 1960 along with the growth rate of nominal gross domestic product (GDP). The adjusted monetary base is the purest measure of the Fed's influence on the stock of money in the economy. It consists of the currency and financial institutions' reserves. Both growth rates are measured over four quarter periods or year-over-year. The general picture is that the monetary base slows before or during every major slowing in GDP.

**Figure 1**
**Monetary growth has slowed sharply**




Source: Federal Reserve Bank of St. Louis

The monetary base has been slowing since mid-2002, but the tightening became most noticeable in 2006 and subsequently when the pace of growth began to slow to the lowest rates observed since the early 1960s. The slowing continued until monetary base growth reached a mere 1.1 percent rate of growth in the second quarter of 2008. The growth rate of other monetary aggregates shows the same slowing. The measure of money used for purchases of goods, services and assets, called M1, adjusted for sweep balances that would have otherwise been held in M1, slowed from over 8 percent in 2004 to about 2.5 percent in most of 2005 and has been below 2 percent in 2007-08, until the third quarter of 2008. The pace of M1 growth has been the slowest since the slowing that caused the 1990-91 and 1960-61 recessions. The figure shows that monetary base growth accelerated in the third quarter of 2008, but all of this increase came in the last two weeks of the quarter when the Fed began to aggressively increase its total assets. Since early September 2008, the Fed has more than doubled its total assets and the monetary base in an effort to boost total credit in the economy.

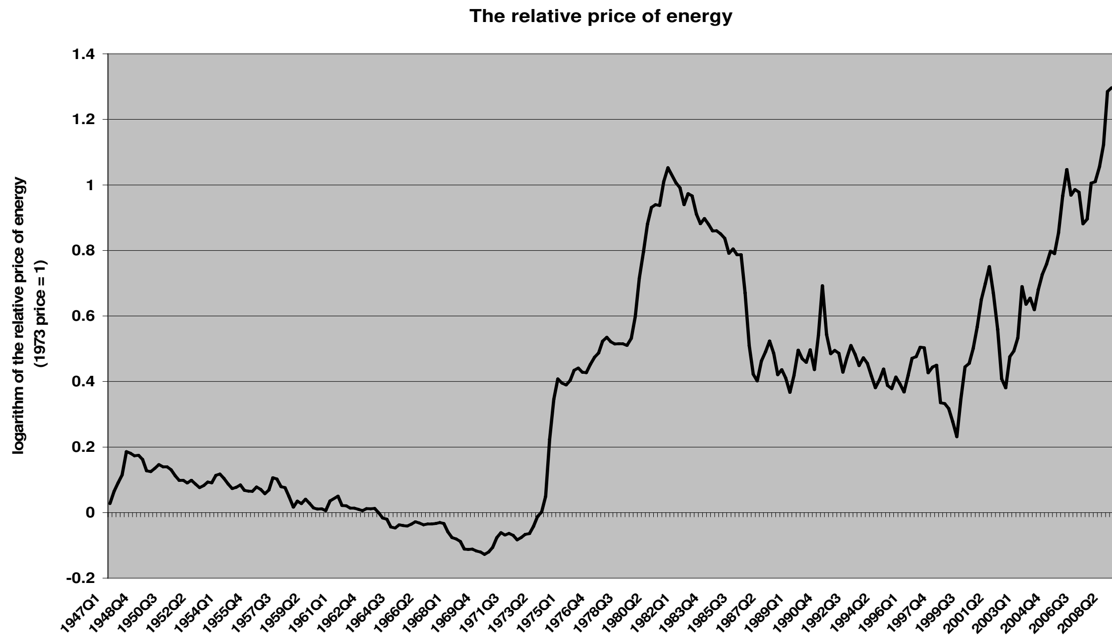
Note that monetary base growth continued to slow from an already recessionary pace during the first year of the financial crisis that began in August 2007, despite its rhetoric that it was attempting to stimulate the economy by lowering the federal funds rate target and by unprecedented private credit provisions. Unfortunately those provisions came at the expense of the credit the Fed provides to the federal government through purchases of government securities.

The slowing in nominal GDP growth began in late 2006 when it was about 6.8 percent and fell to 3.4 percent in the third quarter of 2008. Real GDP growth follows a similar slowing pattern (not shown). A key feature of Figure 1 is that monetary base growth has finally accelerated. With a lead of two to three quarters, given the size of the recent surge in money growth, nominal and real GDP growth can be expected to accelerate, ignoring other factors that might deepen and lengthen the recession. To the extent that the recession is largely due to monetary policy, it should end soon if the Fed continues to pursue the rapid monetary growth that it began in September 2008.

**An oil price shock worsened the recession**

The recent recession has also been influenced by sharp increase in oil prices in 2007-08 that raised the relative price of energy. Figure 2 shows an index of the relative price of energy constructed as the logarithm of the producer price index for fuel power and related products deflated by the personal consumption expenditure deflator and set to one in 1973. The vertical measure equals the continuous percentage change since 1973 and vertical measures are comparable. The relative price of energy has been rising generally since early 1999, but there have been intermittent periods of significant decline. From the end of 2006 to the third quarter of 2008, the relative price of energy rose 41.6 percent. This can be compared with a 54 percent rise over the nine quarter period I/1979-II/1981, which played a significant role in the 1980 and 1981-82 recessions. The first energy price shock, which was associated with the 1973-75 recession, was closer in magnitude, but occurred much more quickly; the relative price of energy rose 40.6 percent from III/1973 to III/1974.

**Figure 2**
**Energy prices surged temporarily in 2007-08**




Source: Bureau of Labor Statistics

The energy price shock is a likely culprit for the recent recession, but there are some major qualifications. First, the surge in energy prices in 2007 came on the heels of a significant decline in 2006 so that energy prices were less than one percent higher at the end of 2007 than they had been at the end of 2005, despite a 17.5 percent rise in 2006. The swing in prices, as well as the size of the increase in 2007, suggested that energy prices were not contributing to a recession up until that time (see Tatom 2008). Over the next two quarters, however, energy prices continued to surge, rising another 23 percent, a pace that was clearly recessionary in earlier episodes. Thus, energy prices would not have likely caused the recession that began in late 2007, but it did make it worse or deeper, and it very likely lengthened it.

What is not shown in Figure 2 is that oil and energy prices have fallen sharply since their peaks in July 2008. By October, energy prices had returned to their level at the end of 2007 and further reductions are certain to wipe out most of the rise in energy prices since the end of 2003. Thus, like the monetary policy influence, the energy price shock influence on the recession is in the process of rapidly disappearing and reversing.

An earlier parallel for a sharp run up and then decline in oil prices occurred in 1990. When Iraq invaded Kuwait in August 1990, oil and energy prices spiked up, with oil prices actually rising 154.9 percent from July to October 1990. Subsequently, oil prices fell back 54.2 percent so that by March 1991, the business cycle trough month, oil prices were only 16 percent higher than before the invasion. So it took an oil price reversal for only 5 months from October to March to end the recession. Oil prices are falling faster in the current recession from their peak in July 2008.

The 1990-91 energy price shock was the first on many episodes that are relevant for energy price shocks since then. In the 1970s and 1980s, major energy price shocks were permanent, in the sense that they did not quickly reverse. If prices rose sharply (1973-74 and 1979-81), they did not fall off as sharply and immediately. If energy prices fell sharply (1986), they did not rebound immediately and as much. Since the mid-1990s there have been several episodes of sharp increases and decreases in energy prices, generally larger than 20 percent in absolute value and lasting usually one to two years. In other words, large enough to have noticeable effects on output and inflation, but not usually fully permanent. The table shows these periods drawn from Figure 2.

**Table**
**Major Moves in energy prices: 1997-2008**

| Period length | Period | Percent change* |
|---|---|---|
| **2 years** | **I/1997-I/1999** | **-27.1%** |
| **2 years** | **I/1999-I/2001** | **51.9** |
| **1 year** | **I/2001-I/2002** | **-37.0** |
| **1 year** | **I/2002-I/2003** | **31.0** |
| **3 quarters** | **I/2003-IV/2003** | **-7.1** |
| **2 years** | **IV/2003-IV/2005** | **42.8** |
| **1 year** | **IV/2005-IV/2006** | **-16.7** |
| **7 quarters** | **IV/2006-III/2008** | **41.6** |

**When will the current recession end?**
The perspective here is optimistic. If the Fed caused the current recession and energy prices made it worse and longer, *and* if there were no other factors influencing it, then a quick end could be in sight, in the first or second quarter of 2009. In the first instance, the recession would match the length of the longest post-world war II recessions in 1973-75 and 1981-82 recessions. However, the influence of the financial crisis has not been taken into account. So far there is no strong evidence that credit has declined more than monetary policy alone might suggest. Nor has there been deterioration on the equity of the banking system that might induce a deleveraging process as significant as many analysts have suggested. If financial conditions deteriorate substantially, however, despite the Fed's dramatic actions from September 2008 to December 2008, then the recession that has had other causes so far would take on a new character.

Even in the best case, that the economy follows a pattern somewhat similar to the end of the 1990-91 recession, one should keep in mind that, while the recession ended in March 1991, the recovery was slow, so slow that it was referred to as the "jobless recovery." From the first quarter of 1991 to the third quarter of 1992, the growth rate of real GDP was only 3.1 percent, relatively low for the first six quarters following a recession. The unemployment rate of 6.8 percent at the end of the recession in March 1991 actually rose to 7.8 percent 15 months later in July 1992.

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