# Inflation is Like Cancer, Not Like a Cold

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Let me be perfectly clear. There is currently some heightened uncertainty about the direction of short term interest rates. There shouldn't be. The Federal Open Market Committee (FOMC) is currently planning to raise short term interest rates. They will likely do so several more times. The FOMC is currently on a tightening path for monetary policy as measured by short term, nominal interest rates. They will continue to stay on it.

The press is currently filled with reports on every formal and informal utterance that emanates from Federal Reserve Board Chairman Bernanke. A similar situation developed with former Chairman Alan Greenspan. While I do not deny that words have an impact on financial markets, Fed watchers should place greater weight on the monetary philosophy of Ben Bernanke, a set of policy principles that is shared with a great deal of good macroeconomists.

The first principle is the answer to the question, "what is the purpose of monetary policy?" The answer, quite simply, is long run price stability. We live in a world of fiat money where paper currency has value because it is a readily accepted medium of exchange. In other words, it has value because other people believe it has value. Good macroeconomists are of one mind on this. Others are not. The standard quip is that `the public wants sound money and plenty of it'. Good macroeconomists readily understand the contradiction in this statement.

Chairman Bernanke is a great macroeconomist. As a proponent of inflation targeting, he desired a low inflation target. Currently, inflation is above the range that good macroeconomists consider low. To keep the value of a dollar stable, its purchasing power must be stable. As such, prices must be stable to keep the value of money stable. The headline inflation rate, the CPI for all goods and services, has been 4.3% for the past 3 months ending March of 2006, and 3.4% for the past 12 months. We can all quibble

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about how to best measure inflation. For instance, the Federal Reserve Bank of Cleveland's median price index grew at 2.7% over the past 12 months ending March of 2006. And inflation expectations measures from the Federal Reserve Bank of Philadelphia are above 2 percent while that for the University of Michigan are above 3 percent. The key is that all these measures are above what good macroeconomists believe is a proper inflation target: namely, 1 to 2 percent. The FOMC has no choice but to recognize this and undertake a sustained policy approach to eradicate it.

The second principle has to do with two important characteristics of implementing a desirable monetary policy. The first characteristic is that it is forward looking. Harkening back to the clear statement by Milton Friedman that monetary policy has "long and variable lags," one issue is that monetary policy must stay ahead of macroeconomic developments, lest it get behind. As well, monetary policy should be prudent and limited in its counter-cyclical thrust due to the unpredictable impact of monetary policy on the economy. The second characteristic is that monetary policy should be data dependent. That is, monetary policy should respond to new data insofar as it contains new information. In the absence of news, monetary policy should be easily predictable and follow an unsurprising trajectory that delivers long run price stability. Central bankers such as the Bank of England's Governor Mervyn King correspondingly suggest that monetary policy should be boring.

Generally speaking, there is lots of new macroeconomic data released each week. But much of it is not "news". So every wiggle in every job report or manufacturing survey has to be properly filtered and put into a pattern. Good macroeconomists can do this pattern recognition, and the Federal Reserve Board has lots of them.

The third principle is that monetary policy should be rule based. This is, of course, consistent with making policy easily predictable, subject to "news" about the macroeconomy. There are several rule based approaches for monetary policy. A popular one is based on the work of former Undersecretary of the Treasury John Taylor. The Taylor model was first proposed as a useful rule of thumb for understanding movements in the federal funds rate during the tenure of Alan Greenspan. The rule has several important parts, not the least of which is that it anchors the federal funds rate to long term, low inflation. Another aspect is that the funds rate should be moderately procyclical (that is, higher when output growth was high and lower when output growth was low). But as important as its low inflation goal is, the rule dictates that good monetary policy necessitates that the federal funds rate must over-respond to changes in inflation. That is if inflation were to rise by one percentage point above its long run inflation target, short term interest rates would have to rise by more than one percentage point for a period of time. In doing so, higher inflation would be met with higher short term real nominal interest rates during the short and medium term which would dampen the inflation process.

The fourth and final principle is that inflation does not die of natural causes. To die, it must be killed. Humanely so if possible, but killed nevertheless. So while good macroeconomists can endlessly debate the extent to which the FOMC should try and use monetary policy to stabilize the economy from output fluctuations, they all agree that only monetary policy can be reliably used to stabilize the long run price level. Such a policy was used (and "for a considerable period") during the FOMC's recent deflation scare. To combat the entrenchment of movements in inflation into movements in inflation expectations, a forward looking rule based monetary policy must be used to aggressively stay ahead of inflation movements.

Let's think of inflation another way. A lot of current commentators are hoping that the FOMC will slow its tightening course and that the FOMC will use a wait and see approach to see how inflation develops over the next 3 to 6 months. In other words, why combat inflation if it is not really there? As history has shown, however, waiting for inflation to go away on its own is a lot like hoping cancer will go away on its own. Inflation is not like having a cold: it is more like having cancer. A cold goes away on its own: cancer doesn't. And just like no doctor advocates that an otherwise healthy patient should not counteract the future consequences of cancer, a central bank should take a rise in inflation with similar vigilance.

So let's put this all together. Let's suppose that the FOMC's long run inflation target is 2% and that long term real interest rates are 3%. Hence, in the long run, short term nominal interest rates would be at a baseline of 5%. This baseline scenario is generally consistent with what good macroeconomists use for an initial pass at thinking about policy. Since current inflation is above the FOMC's long run target, and output growth is good, and was reported recently at 4.9% for the first quarter of 2005, clearly the FOMC should be in the mode of over-responding to inflation. According to the Taylor rule, it is standard to try and "tax" the increase of inflation by raising short term nominal interest rates by 1.5 times the increase in inflation. So, if we take the reasonable view that inflation is 1 percentage point higher than the FOMC likes it, then the FOMC should raise rates 150 basis points above its long run benchmark which we earlier determined to be about 5%. In total, a standard macroeconomic analysis of the situation would call on the FOMC to put the federal funds rate up to 6.5%.

Now maybe you don't like the math, though there is nothing fuzzy about it, or you can quibble about the long term real interest rate. But even if you lower the long term real interest rate to 2%, based on this analysis the FOMC should put the federal funds rates up to 5.5%. Nothing here indicates that the FOMC would be moving away from its tightening course. This is bourn out in the Federal Reserve Bank of St. Louis' recent Monetary Trends: according to the Taylor rule, current short term nominal interest rates are consistent with a 4 percent target rate of inflation, not a 2 percent rate.

Of course, other factors go into making monetary policy. On the monetary side, while growth of the monetary aggregates M1, MZM and M2 has been modest in 2005, the first quarter of 2006 has shown a distinct pick-up in these growth rates. The pick up in these narrower measures is now more closely in line with the growth in M3, which has been very strong since the end of 2004. Credit growth, as measured by Bank Credit, Commercial and Industrial Loans and Total Loans and Leases are close to or above 10%.

So let me return to being clear. Core inflation is at the top end of the FOMC's presumed target. Broader measures are well above this level by at least one or two percentage points. The costs to the FOMC for maintaining their price stability credibility are now relatively low. The credibility costs to the FOMC if inflation were to rise further would be very large. The FOMC is taking prudent action against a permanent rise in the rate of inflation by undergoing a tightening course of monetary policy. This policy is prudent because it is forward looking, it is supported by data, and it is consistent with the modern approach to implementing good monetary policy. Such a policy was recently used to head off "deflation". The FOMC's current monetary policy stance of continued tightening is not yet finished. Economies don't just cure themselves of inflation.