

# Milton and Money Stock Control

Milton Friedman Luncheon

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**W**e are here today on Milton Friedman's birthday to remember him and his enormous contributions. Those of us who studied under him are extraordinarily fortunate. Most of us were able to maintain contact with him for the years between our studies and his death.

If Milton were here today there is nothing he would enjoy more than a lively seminar on some aspect of economics. A lively seminar is what I intend to offer. I'm pretty sure that what I'm going to say would have provoked him and that I would have learned a lot from hearing him comment on my analysis.

Of the monetary economics battles Milton fought in the 1960s and 1970s, his policy prescription for steady money growth at a low rate is the only important issue where he failed to carry the profession. Mainstream macroeconomics accepts his view that the long-run Phillips curve is vertical, that we need to focus on real, rather than nominal, interest rates, that low inflation is central to economic stability and that fiscal policy has little to do with short-run fluctuations in employment and output. But few economists still support money growth targeting.

Although Milton's money-growth policy prescription did not win out, I believe that his analysis justifying this prescription has had much more influence than many realize. I'll review his case for this recommendation and then discuss how this case relates to current central bank practice.

Before proceeding, I want to emphasize that the views I express here are mine and do not necessarily reflect official positions of the Federal Reserve System. I thank my colleagues at the Federal Reserve Bank of St. Louis for their comments, but I retain full responsibility for errors.

## THE CASE FOR MONEY STOCK CONTROL

As a card-carrying monetarist, I argued the steady money growth case vigorously in years past, and it is still my conviction that a central bank ignores money growth at its peril. Milton and his co-authors, especially Anna Schwartz, provided ample evidence that variations in money growth were highly correlated with the business cycle, and he argued that steady money growth would reduce the amplitude and frequency of recessions. He also argued that sustained inflation would be impossible without sustained money growth in excess of the economy's long-run real rate of growth.

Milton favored steady money growth because he did not believe that central bankers were wise enough to improve on the outcomes that would flow from steady money growth. With evidence from the Greenspan era, Milton changed his view a bit, but was not convinced that Greenspan's success in adjusting the stance of monetary policy was likely to be replicated by future Fed chairmen.

The case for controlling the money stock also rested on the dangers of controlling interest rates.

A policy interest rate held too low set in motion a cumulative process of larger and larger inflationary disequilibrium; with a pegged nominal rate of interest, rising inflation and inflation expectations would lower the real rate of interest. That was the opposite of what would be needed to quell inflationary fires. The process was symmetrical; with ongoing deflation, a monetary policy holding a nominal interest rate steady would promote deflation and a rising real rate of interest. An adjustable interest-rate peg does not change the analysis in any fundamental way; given that inflation expectations may be changing, the issue remains whether interest-rate adjustments are adequate to move the real rate of interest in the appropriate direction. Steady money growth, on the other hand, was inherently stabilizing as the real rate of interest would tend to rise during an inflation and fall during a deflation.

Milton also argued for steady money growth on political grounds. A commitment to steady money growth would reflect a rule of law rather than of men. He did not trust the legislature to run monetary policy in a nonpolitical way, nor did he trust “unaccountable bureaucrats,” as he might put it, appointed for long terms to conduct a discretionary monetary policy. His view was shaped by the Fed’s poor performance in the early years of the Great Depression and by the fact that at that time pressure from Congress, when it was in session, did push the Fed a bit in the correct direction.

This background is all familiar ground; I review it to introduce my comments on current central bank practice.

## CONSEQUENCES OF CONTROLLING THE FEDERAL FUNDS RATE

Everything Milton argued about money stock control is true, but the effect of inflation expectations on the practice of monetary policy itself was, I believe, a missing element in the analysis. The economy functions differently when inflation expectations are firmly anchored. If a central

bank allows expectations to become unanchored, then interest-rate control becomes a dangerous and potentially destabilizing policy. But should the practice of monetary policy depend on how well inflation expectations are anchored? I do not recall Milton discussing this question, perhaps because he believed that the best way to maintain well-anchored expectations over time was for the central bank to commit to steady and low money growth under all circumstances.

How does a central bank anchor inflation expectations? One approach would be for the central bank to commit to low and steady money growth come what may. A problem with this approach is that it may not appear credible to the markets when financial instability and/or recession occurs. If a policy of steady money growth has exceptions, can the exceptions be defined in such a way to retain anchored inflation expectations?

A necessary and sufficient condition for anchoring is that the central bank act vigorously to resist inflation or deflation whenever it becomes evident and particularly when inflation expectations change, up or down, in an unwelcome way. If the central bank is willing to push as hard as it takes, regardless of short-run consequences to unemployment and especially to the bond and stock markets, then market participants will develop firm views on the likely rate of inflation in the future. The Fed must convince market participants who bet against it that they will regret their bets.

It is highly desirable that the central bank behave in a rule-like way, both for the political objective of the rule of law rather than the rule of men and because predictable policy promotes more efficient decisions in the private sector. To the maximum possible extent, we desire an equilibrium in which the markets behave as the central bank expects and the central bank behaves as the markets expect. Central bank behavior to anchor expectations of low and stable inflation is the single most important aspect of policy predictability. I believe that the Fed has come a long way in that direction though, obviously, there are certainly opportunities for the Fed to refine its policy

rule. In this context, by “rule” I simply mean that the Fed’s policy actions are systematic and highly predictable responses to new information.

Steady money growth would also be highly predictable, but I believe that the Fed’s actual adjustments of its federal funds rate target have yielded superior outcomes since 1982 to what we would have observed under steady money growth. I also believe that advances in knowledge permit us to say with some confidence that these gains are not just an accident of Alan Greenspan’s special skills and intuition.

So, the Fed has pushed hard at certain times, and kept its federal funds target unchanged at other times, with the result that inflation expectations are now quite well anchored and policy adjustments are not themselves disturbances to the market. With inflation expectations anchored, changes in the nominal federal funds rate reliably move the real federal funds rate in the same direction and by roughly the same amount. Data from trading in indexed Treasury bonds, and from surveys, allow the Fed to monitor changes in inflation expectations continuously. Such monitoring helps tremendously to provide assurance that the Fed is not falling behind in its policy adjustments.

I noted that an attractive part of the case for steady money growth was that market-driven changes in interest rates would be inherently stabilizing. Interestingly, and I think surprisingly, we now see the same process at work with longer-term bond yields. The Fed adjusts its federal funds rate target in a discretionary, though highly predictable, fashion, but significant changes in long rates do occur. Those of you who follow the markets closely could point to many cases in recent years in which long rates have helped to stabilize the economy while the Fed remained on the sidelines, holding the federal funds rate target unchanged.

We are witnessing this phenomenon currently. Putting aside what is happening to the markets as I speak—something I obviously could not incorporate in my written text—the decline in long Treasury rates last week surely helped to stabilize markets relative to a situation in which

those interest rates were held fixed by monetary policy. If the Fed had been pegging long rates, the flight to quality last week would have required the Fed to take funds out of the market. That would have been a destabilizing response to market fears concerning housing and the sub-prime mortgage market. Nor would the Fed have been in a good place if it had to make a decision as to just how far it should adjust a pegged long interest rate. This is the kind of judgment best left to the market.

What our analysis missed a generation ago was that the typical model with only one interest rate could not possibly allow for stabilizing market responses in long rates when the central bank set the short rate. Of course, macro economic models did have both short and long rates, but the structure of the models did not permit analysis of the sort I am discussing because the typical term structure equation made the long rate a distributed lag on the short rate. The model’s short rate, in turn, was determined by monetary policymakers setting it directly or by the money market under a policy determining money growth.

Once we allow expectations to uncouple the current long rate from the current short rate, the situation changes dramatically. The market can respond to incoming information in a stabilizing way without the central bank having to respond. Long bond rates can change, and change substantially, while the federal funds rate target remains constant.

Eventually, of course, if changed conditions persist, the central bank will have to adjust the policy rate in the direction required by the new information. In the absence of such eventual policy adjustment, the destabilizing effects of a constant interest rate emphasized in the earlier literature will appear.

## THE BOTTOM LINE

Consider where this analysis leaves us. Assume inflation expectations are well anchored. The central bank can hold its policy rate relatively

steady and rely on market adjustments in long rates to do much of the stabilization work. When new information arrives, most of the time the central bank can wait for market responses and the passage of time to clarify what is happening. The current situation is a perfect illustration. The Fed doesn't know and market participants do not know either, the full implications of last week's stock market declines and increases in risk spreads. Market reactions last week may be overdone, or perhaps not. We just do not know. In a situation like the terrorist attacks of 9/11, the Fed knew enough to believe that a quick policy response would be helpful and unlikely to itself be destabilizing.

A typical market upset, such as last week's, is not at all like 9/11. Most of these upsets stabilize on their own, but some do not. I'm not saying that the Fed should ignore what happened last week—we need to understand what is happening. However, it is important that the Fed not permit uncertainty over policy to add to the existing uncertainty. The market understands, I believe, that the Fed will act in due time, if and when evidence accumulates that action would be appropriate. That is why trading in the federal funds futures market reflects changed odds from two weeks ago on a policy adjustment later this year.

If last week's events do not turn out to change the probable course of economic growth and inflation, then the fed funds futures market will reverse course and the expected policy easing will disappear. Or, if evidence accumulates that the inflation picture remains benign but the outlook for the economy next year appears likely to be significantly weaker than the current best guess, then the market will deepen its conviction that the Fed will be cutting its fed funds target.

The regularity of Fed behavior I espouse is that the Fed should respond to market upsets only when it has become clear that they threaten to undermine achievement of fundamental objectives of price stability and high employment, or when financial-market developments threaten market processes themselves. The Fed should not try to substitute its judgments for the market's judgment on appropriate security prices. The

right question to ask is not whether Fed action in response to any current market upset would be desirable but rather whether it is possible to define a systematic response to market upsets in general that would be helpful. The answer I give is that effects on the economy can rarely be understood without passage of time and more information. Occasionally, there is contemporaneous evidence of damage to market mechanisms that might justify quick Fed action.

The key point is that, in these situations, the market is making judgments on security prices, stabilizing the economy without the Fed having to lead the way. This is exactly the process envisioned a generation ago by the monetarist advocates of steady money growth. This is what Milton taught us about markets, and he was right.

When inflation expectations are firmly anchored, an important reason for the Fed to let markets take the lead is that overactive Fed responses to market developments set precedents that tend to destabilize markets in the future. If the market believes that the Fed is always primed to adjust policy, then market participants will spend more time trying to second-guess the Fed than trying to understand what is happening to business and household behavior. As I emphasized earlier, a good market equilibrium requires that the Fed behave as the market expects. When there are widely varying interpretations in the market about what is happening, it is impossible for the Fed to behave as the market expects because there is no unified view in the market about what is happening. At any given time, it may be impossible for the market to come to a unified view about what is happening, simply because of incomplete knowledge and different professional judgments by those best informed. Still, there need be little or no uncertainty about Fed behavior the day before an FOMC meeting. Fed actions at future meetings months ahead will remain uncertain, to both the market and the FOMC itself, because the future information set is uncertain.

In the meantime, the central tendency of market views on what is happening will control the long bond rate and security prices more gen-

erally. Differences in market views as to what is happening will determine who is long and who is short in the market. Eventually, as new information clarifies the situation, the variance of views around the central tendency will fall and more normal market conditions will reemerge.

As for the politics of monetary policy, I believe there is extremely wide support for a totally apolitical Fed. There is a consensus on the desirability of low inflation and that the Fed should do what it can to stabilize the unemployment rate at the lowest rate consistent with sustained non-inflationary economic growth. The market and most political leaders believe that the Fed is apolitical. The market trusts us, and we, in turn, work hard to retain this trust. When I say “we” I really mean the Fed as an institution. Fed officials, staff and Reserve bank directors have a deep understanding of the importance of apolitical monetary policy. This understanding goes far toward making Fed actions reflect a rule of law rather than a rule of the individuals making the decisions. The closest analogy, perhaps, is that we work as fiduciaries. I do not deny that it would be desirable for the Federal Reserve Act to be clearer about the objectives the Fed should pursue. Still, the Fed as an institution has gone a long way to make its policy actions rule-like in their regularity. If the institution is strong and incorruptible, as I believe it is, then we probably have as much assurance in a democratic society as we are likely to get.

Although Milton did not prevail in his quest to have the Fed maintain a constant money growth rate, he did prevail in his insistence that policy be apolitical and rely to the maximum possible extent on market judgments. He lost a battle but truly did win the war.