Commentary

What is the Fed Doing?

Western Asset
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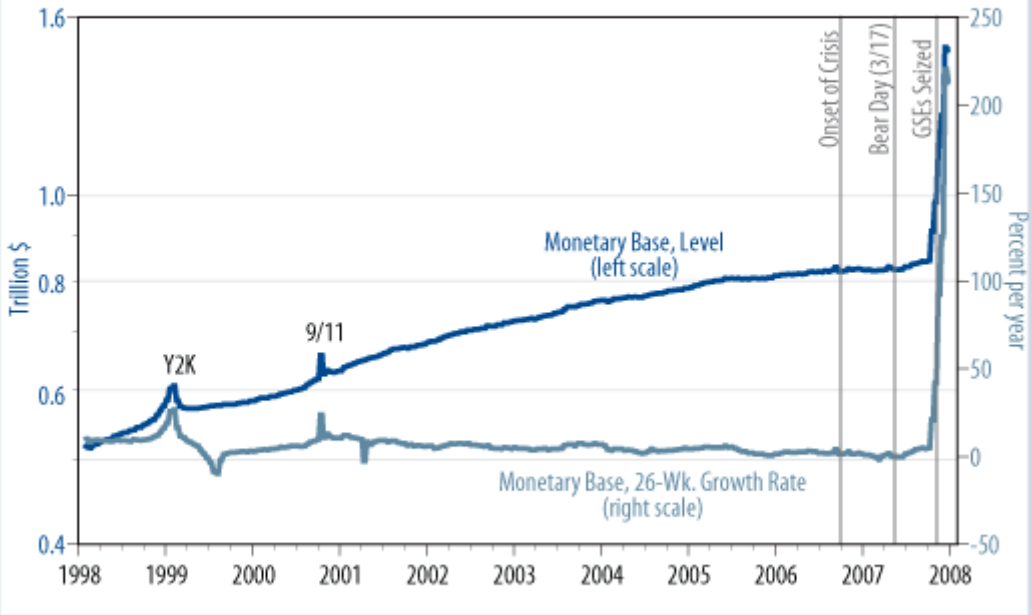
Executive Summary

- Federal Reserve policy moves in the last three months have been fundamentally different from anything seen in the last two decades.
- Not only is the Fed easing by lowering Fed funds and Treasury rates, but also it has directly targeted expansion of quantitative measures of the money stock, and it has worked to directly influence private-sector borrowing rates.
- While these policy methods have long been advocated within the academic community, they are different from anything the Fed tried in the early 1930s or in the first year of the current crisis.
- The Fed's actions to date already are of an order of magnitude comparable to what it should have done to mitigate the Great Depression, and so these actions point to a much different performance of the economy presently from what was seen in the 1930s.

Exhibit 1
The Monetary Base: Fed Liquidity in U.S. Economy



Source: Federal Reserve Board

Introduction

In the last three months, the Federal Reserve (the Fed) has drastically changed the way it conducts policy. For nearly two decades, the Fed had accounted its policy strictly in terms of interest rates, more specifically in terms of Fed funds and Treasury rates. Since September, it has begun to pay explicit attention to "quantitative" measures of money in the financial system, in the process engineering a dramatic expansion of the money stock. The Fed has also tacitly acknowledged that whatever the level of Treasury yields, private-sector borrowing rates are also (more?) important in influencing economic activity, and it is considering ways to directly influence private-sector rates.

The Fed's actions and considerations can be understood within the context of long-standing debates among economists over the nature of monetary policy. Do money and credit affect the economy directly or only via their effects on interest rates? Is the effective stance of monetary policy best gauged by the quantity of money and credit or by the level of interest rates, and if interest rates, which ones? These debates have reverberated through the academic and policy halls for decades and even centuries.

In normal economic times, the nuances over which these debates rage are less than critical. Again, Fed policymaking has been conducted exclusively in terms of Treasury yields since the early-1990s. Through the "normal" times from then until August 2007, those methods worked satisfactorily.

However, extraordinary times call for extraordinary measures. With the economy having failed to respond to a year of "orthodox" easing, with private-sector rates having failed to respond to that easing, with orthodox policy levers about played out, and with the old debates perhaps echoing within the Fed's collective noggin, extraordinary policy initiatives have recently surfaced.

True, the Fed began its policy innovation as early as the institution of the TAF facility in December 2007, followed shortly by an alphabet soup of similar lending facilities. However, none of these moves achieved any traction in working to expand quantitative measures of money and credit, nor, obviously, did these moves prevent the economy's recent lapse into recession.

Things have changed—apparently decisively—since the end of the summer. The money stock has begun to expand dramatically since September. Over the last month, long-maturity Treasury yields have plunged, and private-sector borrowing rates have apparently begun to decline. Furthermore, these changes were effected not through changes in funds rate targets, but by direct expansion of bank reserves and other innovative actions.

Based on quantitative money measures alone, the Fed has already done enough to forestall deflation and recession, and on these grounds, it might just sit back and wait for its initiatives to take full effect. Instead, chances are that it will continue to seek further policy levers. Treasury rates are down, and money is expanding, but private-sector borrowing rates are still generally far above their pre-crisis levels. In coming months, the Fed will likely seek to further reduce corporate bond yields and residential mortgage rates.

The following section documents the change in the behavior of money in recent months. An accompanying text box provides a synopsis of the conceptual issues surrounding the Fed's recent moves. Subsequent sections discuss related issues, such as the monetary context of the Great Depression, the present state of private-sector borrowing rates, and possible exit strategies for the Fed from its current, stimulative stance.

The Recent Explosion in Money Growth

As discussed in the blue box at the right, while interest rates versus money is a very old monetary debate, it has largely disappeared over the last two decades for a variety of reasons.

Both Fed "hawks" and "doves" have confined their policy bickering in recent years to whether Treasury rates should go up or down. Both groups saw Fed policy as accommodative early this year. The funds rate had fallen from 5.25% in mid-2007 to 2.00% by April 2008. What else did one need to know to assess the stance of Fed policy?

Well, there were other nagging details. The monetary base measures the total of Fed liabilities extended to the domestic banking system. It is the "high-powered money" that drives growth in the money stock. Through early-September 2008, despite a year of "orthodox" easing and the aforementioned lending facilities, the monetary base steadily decelerated to a zero growth rate (Exhibit 1). In all previous easing cycles of the last half-century, either during financial crises or economic slowdowns, falling Treasury yields were accompanied by faster growth in the monetary base and the money stock. During the first 12 months of the current crisis, not only did the base fail to accelerate, it stopped growing altogether.

This has changed since September. In three months, the Fed has expanded the monetary base by $825 billion or 97%, a staggering expansion, boosting bank reserves by nearly that amount. The monetary aggregates have surged in response. The narrow M1 aggregate has risen $140 billion, or 10%, after years of zero growth, and the M2 aggregate has risen $300 billion, nearly 4%, greatly accelerating its trend path as well. In addition, the Fed has extended more than $600 billion of additional funds to foreign central banks, for a total expansion of its balance sheet of nearly $1,500 billion. Rather than merely pegging the funds rate and supplying whatever reserves were demanded at that target rate, the Fed has force-fed reserves into the system, driving an immediate acceleration in money that 12 months and 325 bps of target rate easing had failed to achieve.

The Experience Of The Great Depression

The potential significance of this change in tactics can be seen by recounting the experience of the Great Depression. As discussed in the text box, Friedman and Schwartz (hereafter F&S) provided a cogent account of the 1930s that challenged the orthodox account of that era. Because the Depression continued despite near-zero T-Bill yields and similar levels for T-Bonds, many economists took the 1930s' experience as proof of the impotence of monetary policy in countering serious economic slides.

Contrary to this accepted orthodoxy, F&S emphasized that a collapsing banking system in 1929 and after drove a sharp contraction in the money stock, which they asserted was a major factor in lengthening and deepening the Depression. The Depression-era Fed looked at low Treasury rates as proof of an easy policy stance, and it cited the steady level of the monetary base as affirming this depiction. F&S argued that the money stock mattered as much as or more than Treasury rates or the monetary base alone.

Though the monetary base did not contract sharply, the collapse of the banking system meant that each dollar of currency and reserves in the financial system supported a much lower volume of bank deposits, so the money stock did contract sharply (Exhibit 3). The money multiplier plunged. Furthermore, the accompanying loss of public confidence in the banks that did survive meant that each remaining dollar of money stock turned over (was spent) much more slowly. The velocity of money plunged (Exhibit 4).

Rather than easy Fed policies failing to prevent the Depression, F&S argued that Fed actions directly exacerbated the Depression by allowing the banking system to collapse and then failing to forcefully counter the effects of that collapse. In effect, they criticized the Fed for failing to do exactly what it has done in the last three months.

True, the existence of deposit insurance and other subsequent reforms have helped prevent a collapse in the banking system and in the money stock presently. However, as seen in the 1930s, both the contraction in money and the reduction in its rate of turnover contributed to downward pressure on prices and GDP. F&S argued that a forceful expansion of the monetary

base could have addressed both factors.

Presently, the velocity of money is plummeting, due to a loss of confidence comparable to that of the 1930s. Throughout the period since August 2007, the Fed had taken extra steps to preserve the integrity of the banking system. In the last three months at least, it has also forcefully expanded the money stock, something it failed to do over 1929-39.

How much monetary expansion would have been required to avert the 1930s' deflation can be gauged by analyzing the decline in nominal GDP during those years. In terms of annual averages, nominal GDP declined a cumulative -53% from 1929-33 or by -56% from its preceding growth trends. (The GDP decline would be even larger—and the necessary monetary offset larger—were it measured on a quarterly basis, but those data are unavailable.)

The velocity of money is the ratio of nominal GDP to the money stock, and the money multiplier is the ratio of the money stock to the base. So the sum of the changes in velocity and the multiplier compound to the change in nominal GDP relative to that in the monetary base. If we attribute all the below-trend growth in nominal GDP over 1929-33 to adverse monetary developments (declines in the multiplier and velocity), then it would have taken a 129% jump in the monetary base relative to its actual path to counter those effects: both of the bank failures and the consequent loss of confidence in surviving banks. Alternatively, in the absence of widespread bank failures—no drop in the money multiplier—offsetting merely the velocity/confidence effects would have required a 58% increase in the money stock and the monetary base[1]. Such an expansion would not have been inflationary, but would only have served to offset the deflationary forces occurring in that episode.

The Fed's 97% expansion in the base to date is of an order of magnitude comparable to what the Fed should have done in the 1930s. Maybe present financial-system stress will prove to be more serious than that of 1929-33, in which case the Fed would have to expand money further. Maybe there will prove to be less substantial stress, in which case the economy would revive vigorously, and the Fed would soon have to reverse some of its recent stimulus. Either way, the Fed has acted in a way that it failed to act in the 1930s and to an order of magnitude that offers a high chance of success, and it can fine-tune that policy stance down the road as events dictate.

What About Corporate Yields?

In terms of the money/interest-rate debate over monetary policy discussed in the box, the Fed's recent moves can be seen as a concession to assertion that money and credit aggregates directly affect the economy, even apart from their effects on interest rates. At the same time, even from an interest-only view of monetary policy effects, the Fed's focus up until recently looks to have been myopic. When considering the effects of interest rates on private-sector spending decisions, it is natural to think that consumers and businesses respond to the interest rates they actually have access to: private-sector borrowing rates, rather than Treasury yields. Why should a drop to zero T-Bill yields stimulate business spending if rates on corporate bonds and commercial loans have not gone down in tandem?

Not only had this been the case in the early months of the present crisis, but also it was the experience over much of the 1930s. As seen in Exhibit 5, besides the money stock contracting, it was also the case in the early 1930s that corporate bond yields first failed to fall over 1929-30 and then soared over 1931-32, despite continued declines in T-Bill rates. It wasn't until 1936 that corporate yields fell below the levels in place at the outset of the Depression. Presently, as seen in Exhibit 6, corporate borrowing rates have only recently begun to decline, after soaring over the summer.

In sum, even from an interest-rate-focused perspective on monetary policy, it is important that policymakers look at the appropriate interest rates. In viewing its early 2008 policy stance as accommodative, Fed officials were at least as errant in ignoring private-sector borrowing rates as they were in ignoring stagnant money growth.

From a strict quantity-of-money point of view, the Fed likely has already done enough. Money certainly works on the markets and the economy with a lag, and it might also be merely a matter of time before rapid money growth drives sharp declines in corporate and mortgage rates. However, it is unlikely that the Fed would take such a doctrinaire approach.

In a period where "orthodox" easing moves aren't working, just as a monetarist perspective argues for direct stimulus of the money stock, so too a perspicacious interest-rate perspective argues for direct action on corporate bonds and mortgage rates. Fed officials have long balked at such operations, claiming a lack of expertise in properly pricing these instruments. However, exigencies have pushed the Fed to tread where it would prefer not go. It has already begun operations to purchase agency mortgages, with favorable results on mortgage rates. It is likely that such operations will be widened to non-agency MBS and to corporate bonds, should yields on these fail to decline satisfactorily.

The 1930s' experience also suggests that corporate borrowing rates began a significant decline shortly after long-term Treasury rates began their sharp decline in 1932. Besides recent MBS purchases, the Fed has also announced intentions to lower yields on longer-term Treasuries. The last few weeks have seen a massive rally in Treasury bonds, no doubt in response to Fed rhetoric and actions.

While corporate bond spreads have held near their wides so far and while corporate yields are still well above early 2007 levels, it is also true that corporate yields have shown their sharpest decline in years since the end of October. Whether this is a lagged response to the rapid money growth that began in September or the result of other Fed actions explicitly targeting private-sector rates, it is a welcome start, and one would expect the Fed to continue to operate on a number of fronts to achieve further declines in these yields.

End Game, Anyone?

Some are already calling the Fed's recent moves inflationary. The same was said of Fed moves a year ago and even of the Fed's ineffective actions of the 1930s[2]. Still, even paranoids have real enemies, and there is a valid concern about how the Fed might reverse the recent stimulus when and as the need for it fades.

Actually, the Fed's initial "quantitative easing" looks to have been engineered with an eye toward easy reversal. That is, rather than injecting reserves via purchases of assets (open-market operations), the Fed instead loaned cash to the banking system on a massive scale over September-November, to the tune of $600 billion. It should be a simple matter to shut these loans down when and as banks' financial condition has improved to the point that they no longer need the borrowed reserves.

In contrast, large-scale asset purchases would have to be reversed by large-scale asset sales. Such sales could be disruptive within a fledgling recovery environment, and they would also incur all the security pricing and selection problems that the Fed has cited with respect to asset purchases. (Large-scale asset purchases by the Fed would inevitably involve purchases of non-Treasury assets, both as a practical matter and also to ensure their effectiveness.)

It might be thought that open-market operations would be more directly stimulative than loans to banks. It is not clear that this is the case. The main intentions are to stimulate money growth and lower private-sector yields. The Fed's chosen route of large-scale bank loans has already been remarkably successful on the former intention, and there are incipient gains in place on the latter.

In any case, the Fed has resorted to open-market purchases of assets since November. Its domestic reserve injections to date total some $600 billion of loans and $200 billion of asset purchases. Meanwhile, in line with our discussion of the 1930s experience, much, most, or all of

the Fed moves to date can be seen as merely offsetting deflationary forces and so not inflationary per se. It may be that the monetary injections seen recently need never be reversed. If some reversal is required, at least $600 billion of the easing to date—the amount of Fed loans—can be easily unwound when the time comes.

Conclusion

Once again, extraordinary circumstances lead to extraordinary actions. The Fed had become confined to a one-play playbook: Fed funds rate cuts. In the extraordinary developments of the last year, such moves were clearly ineffectual, both from a quantity-of-money approach and even from an interest rate approach that focuses on rates that real people pay. The Fed's resort to a wider range of policy levers has clearly been expedient, and it is also fully consistent with the range of positions within the monetary policy debate of decades past.

After a full year of actions that were ardent, but without clear effect, an expanded playbook has led to three months of faster growth in the monetary aggregates and nearly two months of declines in both long-term Treasury and private-sector yields. There is already reason to believe these actions will have substantive impact on the economy—and sooner than many analysts contemplate—and there is every reason to expect further actions by the Fed on still-wider fronts, including direct purchases of corporate bonds and non-agency mortgages.

While the Fed was initially slow to respond, its recent actions have been forceful. Furthermore, even with the lag, they have occurred much quicker in process presently than was the case nearly 80 years ago.

References

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Footnotes

1. The arithmetic is that with a -53.6% drop in nominal GDP, the necessary rise in the monetary base would be by a factor of 1/(1-0.536) = 2.29, or a 129% increase relative to actual trend. With money velocity down by -36.8%, the base and money would have to rise by 1/(1-0.368) = 1.58, or 58% relative eo trend.
2. In our white paper "Is It Inflation?" of June 2008, we quoted a passage by N. Parker Willis from January 1932 that decried the inflationary content of Fed policy then.