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SPECIAL FEATURE: RESEARCH ARTICLE

Recent Monetary Policy

New challenges for monetary and fiscal policies

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Abstract
As a result of the "Global Financial Crisis" of 2008, the traditional tools of monetary and fiscal policies were broken and cannot be restored. New approaches to formulating and implementing monetary policies have been adopted, but there is no empirically supported evidence of the effectiveness of the new tools. Whether or not there is an acceleration of inflation or a return to deflation, it will neither be a result of central bank actions, nor can such be combated with monetary or fiscal policies. The decade-old debates about reliable targets and indicators of stabilization policies will have to be waged once again before confidence in the effectiveness of new policies and approaches can be restored.

Keywords Central banks · Monetary policy · Fiscal policy · Inflation

JEL Classification E42 · E52 · E58 · E62

Introduction

Much of the discussions in the decade following the "Global Financial Crisis" (GFC) of 2008–2009 has been about the causes of the housing and other bubbles and how repeated bubble episodes can be prevented in the future. These are important issues and are in the spirit of Frederick Hayek who taught, "the only time to fight recession is during the prior expansion". However, in the years immediately following the international 'economic hangover', there also were numerous proposals for enhancing the effectiveness of monetary and fiscal policies in dealing with future "crises". These 'how to reduce the pain of hangovers' recipes implicitly reject the Hayek proposition. What they prescribe instead is greater latitude for policy activism—even more discretion left to economic policymakers.

The most worrisome suggestion with regard to monetary policies is the idea that central banks should target higher average inflation rates than had become the

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consensus in the 1990s—which was something under 2% rates of increase of the common price statistics. Sometimes the proponents of targeting higher inflation acknowledge that debasing the currency is a form of taxation, yet defend the proposals for more of it saying that the un-legislated tax of inflation is not worse than other forms of taxation. This is a political argument, not an economic argument.

The economists who advocate higher inflation view the effects of monetary policies working solely, or at least primarily, through interest rates and they fret about the "zero boundary problem". It is a quite simple argument that nominal market interest rates contain an "inflation premium" and if inflation is very low or nonexistent market interest rates will also be low. The advocates of monetary policy activism view this as a problem because in the midst of a crisis the authorities can make only 'small' cuts in interest rates—they cannot go below zero.

The central idea is that if aggregate nominal demand for output declines for any reason, a judicious reduction of interest rates by monetary authorities will spur consumers and businesses to spend more, thus sowing the seeds of recovery. The claim is that if the crisis is severe it takes larger cuts in interest rates to reverse the contraction, so higher interest rates to begin with—the result of higher inflation—gives the policymakers a bigger weapon.

Global financial crisis of 2008

In the case of the 2008–2009 crisis, this is a misguided prescription resulting from a faulty diagnosis. The error stems from having concluded that the trigger for the crisis was a contraction in the financial sector, credit availability shrank, so household and business demand for output fell. Policy activists want more powerful monetary and fiscal tools to address such conditions.

Some advocates of targeting higher inflation do so in the context of the enormous budget deficits and piling up of unsustainable levels of national debt. Such advocacy often does not emphasize the importance of returning to adequate fiscal discipline. If one is resigned to long-term fiscal irresponsibility, public editorializing and blogging about the desirability of greater inflation—at least compared to the alternative policy options—undermines the case for tolerating a higher average inflation rate.

We know that it is unanticipated inflation that is an effective tax, so politicians denying the intent to re-inflate, while actually pursuing inflationary policy actions, would more effectively achieve their purpose. We know that a theoretical fully anticipated inflation can never be achieved—especially because of the very large stock of non-interest-bearing currency that is held by someone. However, the degree to which individuals and businesses can take actions to protect themselves from greater expected inflation reduces the effectiveness of this type of taxation.

Today, one motivation for advocating the inflation tax in the US is that it is a way to impose taxation on the very large share of the population that is exempt from the income tax, while at the same time asserting that a political pledge of no tax increases for low-income people has been kept. This political will be successful in forestalling fiscal disaster only to the extent that the public at large is surprised by the timing and extent of the acceleration of inflation.

Advocates of higher inflation in the US are either unaware or unconcerned about the effects of debasement of the world's primary reserve currency on other countries. As we saw in the highly inflationary period of the failed presidency of Jimmy Carter in the late 1970s, the persistent appreciation of currencies that seek to maintain low inflation compared to the US creates political problems in those other countries, especially the smaller open economies that are heavily dependent on international trade.

These advocates of higher inflation recognize that current foreign holders of longer term government debt will suffer both capital losses as interest rates rise and an erosion of purchasing power, the same as domestic holders. They may not understand that the resulting depreciation of the international value of the US dollar also would impose exchange translation loses on foreign holders, both private and official. They might even welcome such a tax imposed on foreigners—clearly a case of taxation without representation. The inflation tax is not only dishonest, it is regressive, divisive and leaves everyone poorer.

No doubt in the years ahead we will continue to debate—and probably test empirically—the hypothesis that monetary policy is a fiscal instrument, a way to finance government. If indeed the "fiscal dominance hypothesis" is correct—a society that is unwilling or unable to achieve fiscal discipline will not maintain monetary discipline—there will be another financial crisis and another opportunity to implement institutional constraints on policy discretion.

Tools of monetary policy

For several decades, the money we use in everyday life is "fiat currency". That is, it is created by central banks and its value is not anchored to anything of intrinsic worth, such as gold. The workings and decision making of central banks is, therefore, important and does not need to be a subject of great mystery. At its most basic level, a central bank is simply a balance sheet and monetary policymakers make decisions about the size and composition of either the asset (sources) side or liability (uses) side of the balance sheet.

In the original toolkit of monetary policies, the only instrument designed to affect the uses of central bank money was the discretionary administration of minimum reserve requirements imposed on commercial banks. The notion was that for a given amount of central bank money, policymakers could increase the amount that commercial banks were required to hold idle in their reserve deposits, producing a restrictive impulse on the banking system. That tool fell into disuse and was entirely abolished at most major central banks, leaving only actions that affected the quantity or composition of sources of central bank money in the mix of policy actions available to decision makers. The desperate adoption of quantitative easing (QE) in the wake of the "global financial crisis" (GFC) in 2008 was a massive operation to flood the financial system with new sources of central bank money in what turned out to be futile efforts to jump-start commercial bank lending for anything and everything that could pass muster with prudential supervisors. The only other actions taken

by US monetary policymakers on the sources of base money was an equally futile "operation twist" [1] conducted in late 2011 and in 2012.[1]

The aim of the twist operations was to lengthen the maturity/duration of the central bank's portfolio of earning assets by selling short-term securities and buying an equal amount of long-term securities. The theory was that such transactions would cause a reduction in other long-term borrowing costs and consequently result in more borrowing and spending by businesses as well as some households. Of course, the simultaneous effect was to shorten the maturity/duration of the government's net debt held by the private sector. One accounting effect was to increase the net interest income of the central bank, and consequently raise additional "other income" of the government because the central bank would now remit greater surplus income to the Treasury. While this near-term reduction in the net interest expense on the government's outstanding debt had marginal budgetary effects, it is not clear from the experience that it had any effect on the aggregate economy. Either way, although the decision was taken by monetary authorities, this was a fiscal decision executed through the central bank's balance sheet, with no clear monetary implications.

The new tools introduced since the GFC operate on the uses side of the central bank balance sheet. After QE ballooned the stock of central bank money to massive size, further actions in that direction—at least in the US—were not viewed as potentially effective. Congress authorized one new tool—the payment of interest or reserve balances (IOR)—in the midst of the GFC, and in 2014 the policymakers announced the intent to employ "reverse repurchase agreements" [2] (RRPs) as a companion instrument for affecting the composition of liabilities on the central bank balance sheet.[2]https://www.newyorkfed.org/markets/opolicy/operating_policy_151216.html. http://www.federalreserve.gov/econresdata/feds/2015/files/2015010pap.pdf.

Changes in the IOR are intended to set a floor under short-term market interest rates. The idea is that commercial banks would not lend to other borrowers at a rate below that available on riskless and highly liquid deposits at the central bank. Of course, in a global and highly dollarized world economy, there are many other lenders/investors who do not have reserve accounts at the US central bank and have reasons to hold low risk and highly liquid assets denominated in US dollars and may be willing to accept yields below the rate paid by the central bank. To supplement IOR, reverse repurchase agreements (RRPs) created a way for the central bank to borrow from both domestic and foreign money market mutual funds, government sponsored enterprises (GSEs), and a few other non-commercial bank participants in global financial markets. The stated objective of both tools is to influence other interest rates—the "price of credit" channel for transmitting the decisions of policymakers to the real economy.

However, IOR is also intended to give an incentive for commercial banks to hold "idle" deposits at the central bank rather than make loans or buy securities which would create deposit money and convert "excess" reserves into "required" reserves. RRPs affect the portion of central bank money available as commercial

[1] http://www.federalreserve.gov/faqs/money_15070.htm.

[2] http://www.federalreserve.gov/monetarypolicy/overnight-reverse-repurchase-agreements.htm.

bank reserves; funds lent to the central bank via RRPs are "absorbed" as a use of base money, and consequently shrink the volume of reserves "available" to commercial banks. Theoretically, auctions of RRPs in sufficient volume could absorb all "excess" reserve balances, putting commercial banks in a "reserve constrained" position similar to the operating environment prior to the GFC[3] [3].

No empirical evidence

Any analysis, however, preliminary, suggesting that "large-scale asset purchases" (LSAP) actually had a contractionary effect during the period of quantitative easing must be taken seriously. Certainly, the cessation of such transactions was desirable; the principle of "do no harm" applies to central banks as well as to doctors. Nevertheless, the problem of formulating an "exit strategy" remains. Some believe that the central bank balance sheet should shrink back to pre-QE levels, and that reserve requirements should once again become binding on commercial bank deposit creation. But that is simply not going to happen. The past practice of conducting daily open market operations to closely control the overnight interbank lending rate—the federal funds rate—is not going to resume as long as enormous central bank balance sheets persist. Central bank purchases and sales of securities in the "open market" can no longer be policymakers' primary tool under current arrangements.

Their new tools—administering the interest rate paid on reserve deposits (IOR) and auctioning "reverse repurchase agreements" (RRP)—have not been tested in an accelerating inflation environment. No matter how aggressively utilized, neither has any direct effect on money creation. The former (IOR) can be viewed simply as central bank borrowing from private banks, while the latter (RRP) is central bank borrowing from GSEs and money market firms. In theory, market interest rates would be influenced by the rate the central bank offers for such borrowings. If higher rates paid by monetary authorities cause other interest rates to be higher, businesses and households will curtail some credit-financed purchases, aggregate demand for output will be moderated, and inflationary pressures will be mitigated—or so the theory goes.

This theory depends on several assumptions, however. Monetary policymakers must have considerable knowledge about the impact of their actions on other interest rates; about the lags involved before businesses and households respond to rising rates; and about whether and how much real interest rates—rather than just nominal rates—are changing. As there is no historical experience employing these tools, there is no basis for assessing their effectiveness. Central banks have demonstrably failed to achieve their objective of higher inflation in recent years; their tools to contain any inflation that emerges are untested.

The risk posed by the enormous central bank balance sheets is that the willingness of commercial banks to hold idle balances (even those earning some

[3] Greenwood, Hanson and Stein advocate greatly expanded use of RRPs as a monetary policy tool and also as a vehicle for satisfying the new and higher mandates to meet "liquidity coverage ratios".

administered rate of interest) will decline. Of course, while any individual commercial bank can take actions to reduce its holdings of "excess" reserves, the banking system as a whole cannot do so. Without a corresponding reduction in the securities held by central banks as assets, "excess" reserves can decline only if they become "required" reserves via an extraordinary increase in reservable deposit liabilities of commercial banks. This option would certainly involve a hyper-inflationary increase in the money supply.

New monetary creation model

Commercial bank deposit liabilities are now a function of the supply of earning assets—both domestic and foreign—offered to commercial banks. In other words, the quantity of "inside money" created by the banking system depends on the demand for bank loans and the aggregate supply of government bonds, mortgage-backed-securities, and other suitable instruments available for acquisition by banks. A forecast of deposit growth—and the money supply—must be derived from a forecast of the supply of (and yields on) earning assets offered to the banking system. That includes forecasts of government budget deficits that must be financed, as well as forecasts of the prices of commercial and residential real estate against which mortgage securities can be created. The knowledge necessary to make confident forecasts cannot be obtained from historical experience.

In recent decades, the big debate among monetary economists and policymakers was over rule-based monetary regimes versus ones based on discretion. That debate accepted that the various tools and instruments available to monetary policymakers were well known. Implicit in this was the idea that the linkages between the open market operations conducted by a central bank's trading desk on the one hand, and the objectives of monetary policies on the other, had been defined and measured, and that differing judgments about lags nonetheless fell within a narrow range. According to this view, central banks bought and sold securities with the intention of affecting either interest rates or monetary growth, and these financial measures were linked to economic activity.

Targets versus indicators

The debate on rules versus discretion took as settled an earlier debate about the targets and indicators of monetary policy; this left only the empirical estimates of parameters and lag coefficients to be constantly updated and revised, alongside individual policymakers' personal preferences about tradeoffs among multiple objectives.

The global financial crisis of 2008–2009 changed all that. None of what was generally accepted pre-2008 applies to the monetary regime of recent years. The thrust of policy actions is no longer gauged by measures on the price axis (interest rates) or the quantity axis (bank reserves and money supply). In the absence of useful, reliable measures of the degree of stimulus or restraint implied by the behavior of

any price or quantity measures (indicators), it is not possible to establish appropriate near-term objectives for the central bank's balance sheet or administered interest rates (targets). And without consensus about the relevant targets and indicators of monetary policies, the debate about rules versus discretion is without a useful reference point.

Since the legacy linkages—the traditional targets of monetary policy actions—stopped working in the aftermath of the global financial crisis, new instruments and techniques have been introduced. But there is no historical track record available to guide policymakers in the formulation and implementation of policies that rely on new tools and instruments. As such, resumption of the rules verses discretion debate will be useful again only after a new debate about targets and indicators has been conducted.

Since commercial banks are no longer reserve constrained, the historical linkage between the central bank balance sheet (the monetary base) and the outstanding money supply has no relevance in the present environment. Changes in the size and composition of the central bank's assets are thus unrelated to the amount of money in circulation—in fact, the money supply recently has continued to grow while the central bank balance sheet has declined. Without the ability to influence the supply of money, central bank open market operations have no influence on the rate of inflation. Announced changes in the overnight interbank rate, therefore, have no implications for economic activity, or the rate of inflation.

If inflation should emerge, central banks will have no tools for countering the pace at which the future purchasing power of money will decline. In the early stages of past periods of accelerating inflation, central banks mistakenly expanded their balance sheets as they "leaned against" the trend of rising nominal interest rates, failing to see that an "inflation premium" was being incorporated by both lenders and borrowers. In other words, monetary authorities' policy actions were "accommodative" of rising prices. For the foreseeable future, however, no such accommodation will be necessary. Ballooning central bank balance sheets are more than sufficient to fuel extreme rates of inflation without further debt monetization. This is not a forecast that inflation will in fact occur. It simply is a statement of the new reality: whether or not there is inflation is unrelated to anything central banks do or do not do.

Whether or not policy decisions to influence the composition of the uses (liabilities) of central bank money with the new tools would result in effective monetary impulses is not known. There has been too little experience to draw firm conclusions about their efficacy. However, the fiscal implications are quite clear. Payments to reserve-balance holders reduce the surplus net interest income of the central bank, so less is turned over to the Treasury. That is, higher IOR reduces government revenue and increases the budget deficits. Similarly, lenders to the central bank under the RRP program—mostly GSEs and both domestic and foreign money market mutual funds—earn income at the expense of taxpayers. Interest paid by the central bank on RRPs (including foreign official accounts) also reduces the residual earnings of the central bank which are remitted to the Treasury.

The net economic implications for the macro-economy are ambiguous; higher IOR and rates on RRPs are intended to be restrictive impulses. However, for economic

analysts who view larger fiscal deficits to be expansionary impulses, there is a mitigating or offsetting effect on the stance of fiscal conditions[4] [4]. Since there is no empirical history on which to base policy prescriptions using these tools, neither the administered yields set by policymakers nor the volumes of reserve balances affected can be used as reliable targets or indicators of the thrust of policies on aggregate economic activity.

Since central bank "open market operations" no longer have any influence on the growth of the money supply, the question remains: what determines money growth rates? It is useful to think of various measures of money consisting of only two components: currency and bank deposits. The currency held by the public and in the vaults of banks is purely "demand determined" in most major countries. Central banks simply provide the amount people want to hold; so there cannot be an imbalance between the amount demanded and the amount supplied. Except in countries where the central bank provides newly printed currency to government agencies to make payments, central banks operate much like a currency board—there can be neither an excess supply nor excess demand for currency.

However, central bank operations have no effect on growth of deposits in commercial banks because there is no binding required—or even desired—reserve ratio that constrains deposit creation. Instead, the acquisition of earning assets by commercial banks—the provision of new loans—simultaneously creates new deposits. If loan demand is strong and new loan creation is rapid, then new bank deposit growth will also be rapid, and vice versa. However, the desire of the public at large to hold additional bank deposits does not necessarily increase at the same rate as the demand to borrow from banks, so there can be an imbalance between the demand for and supply of additional deposits.

Even though commercial banks are not constrained by required or desired reserve ratios, they are subject to the constraints of capital and liquidity ratios in new loan—and, therefore, deposit—creation. Consequently, it is decisions by banking supervisory authorities that have the greatest influence on growth of the money supply—not the monetary policy authorities. Unfortunately, the "safety and soundness" concerns of supervisory authorities are not necessarily compatible with "economic stability" objectives of monetary authorities. Inflation or deflation can be the unintended result of permitting very rapid or very slow growth of bank loans, and, therefore, deposit creation. A forecast of deposit growth—and the money supply—must be derived from a forecast of the supply of (and yields on) earning assets offered to the banking system. That includes forecasts of government budget deficits that must be financed, as well as forecasts of the prices of commercial and residential real estate against which mortgage securities can be created. The knowledge necessary to make confident forecasts cannot be obtained from historical experience.

[4] This is not a straw man; see Christopher Sims, "Reductions in interest rates can stimulate demand only if they are accompanied by effective fiscal expansion. For example, if interest rates are pushed into negative territory, and the resources extracted from the banking system and savers by the negative rates are simply allowed to feed through the budget into reduced nominal deficits, with no anticipated tax cuts or expenditure increases, the negative rates create deflationary, not inflationary, pressure".

One proposal for near-term restoration of the pre-QE/LSAP operating environment would be to create a special purpose central bank subsidiary tasked with holding the additional government securities and other assets acquired during QE/LSAP. This subsidiary would be financed by market-determined interest-bearing liabilities. IOR on deposits at central banks would be eliminated, and the assets of central banks would consist entirely of short-term Treasury bills. Open market operations could then, once again, target the overnight interbank rate or the quantity of bank reserve growth for the purpose of influencing the growth of the money supply and aggregate economic activity.

Conclusion

For several years, major central banks pronounced that the objective of massive quantitative easing was to raise the inflation rate. That objective has been achieved in only a few countries despite the quadrupling (in the case of the US) of the central bank balance sheet. Since commercial banks are no longer reserve constrained, the historical linkage between the central bank balance sheet (the monetary base) and the outstanding money supply has been broken. Changes in the size and composition of the central bank's assets and liabilities are thus unrelated to the amount of money in circulation. Without the ability to influence the supply of money, central bank open market operations have no influence on the rate of inflation. Announced changes in the interest rate central banks pay to their depositors, therefore, have no implications for economic activity, or the rate of inflation.

If inflation should emerge, central banks will have no tools for countering the pace at which the purchasing power of money declines. While in past periods of accelerating inflation, central banks mistakenly expanded their balance sheets as they "leaned against" the trend of rising nominal interest rates because they failed to see that a rising "inflation premium" was being incorporated by both lenders and borrowers. In other words, monetary authorities' policy actions remained "too easy for too long". For the foreseeable future, however, no such accommodation will be necessary. Central bank balance sheets are now more than sufficient to fuel extreme rates of inflation without further debt monetization. The rising trend of inflation in the US is unrelated to anything the central bank does or does not do.

Furthermore, instead of a shrinking budget deficit as the economy expands—the usual experience in past cycles—the US deficit is now expanding at an accelerated pace. The combination of additional spending programs and reduced tax rates has assured that fiscal restraint will not be restored for the foreseeable future.

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References

1. Board of Governors, Federal Reserve System. (2018). Bank assets and liabilities. https://www.federalreserve.gov/data.htm. Accessed 25 Oct 2018
2. Federal Reserve Bank of New York. (2015). Statement regarding overnight reverse repurchase agreements. https://www.newyorkfed.org/markets/opolicy/operating_policy_151216.html. Accessed 29 Mar 2018
3. Greenwood, R., Hanson, S. G., & Stein, J. C. (2016). The Federal reserve's balance sheet as a financial-stability tool. In *Federal Reserve Bank of Kansas City's 2016 economic policy symposium*.
4. Sims, C. (2016). Fiscal policy, monetary policy and central bank independence. In: Federal Reserve Bank of Kansas City's 2016 economic policy symposium.