A Century of Central Banking: What Have We Learned?

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All of us who are interested in the century-long experience of central banking in the United States owe a great debt to Allan Meltzer. His several-years-long efforts gave us over 2,000 pages of careful documentation of decisionmaking in the Federal Reserve for the first 75 years (Meltzer 2003, 2010a, 2010b). The first score of years transformed a lender-of-last-resort, payments processor, and issuer of uniform national currency into a full-fledged central bank with discretionary authority to manage a fiat currency.

Even in the mid-1930s, then Senator Carter Glass declared that we did not have a central bank in the United States. However, legislation in 1933 and 1935 had institutionalized the Federal Open Market Committee (FOMC), which had previously been an informal coordinating committee.

In an interview several years before his death, Milton Friedman was asked about any regrets in his long career. He replied that he wished he had paid more attention early on to what Jim Buchanan had been saying about the behavior of politicians and bureaucrats (Friedman 2003). Any discussion about any institution of government can be fruitful only in the context of the public-choice elements of decisionmaking by individuals who occupy policymaking positions. For the past century, the economic theories of

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prominent personalities in the central bank's policymaking bodies have been the dominant factors giving us the very mixed results we have witnessed.

Dead-End Debates

In 60-plus years since the Accord in 1951, the U.S. central bank has gone full-circle from being a de facto bureau of the U.S. Treasury, to an "independent" monetary authority, and back to a bureau of the Treasury. Of course, the long period of "even-keeling" demonstrated that the Fed's independence was always more in rhetoric than reality (Cargill and O'Driscoll 2013). The debates about free reserves versus net-borrowed reserves, targets versus indicators, monetary versus fiscal policy, the Phillips Curve, monetary aggregate targeting, and econometric modeling have come and gone within a decade or two. The emergence and demise of those debates over the past several decades—about how to reform and improve the formulation and execution of monetary policies by committee—have left us after 100 years questioning the *concept* of central banking and monopoly monetary authorities. In this article, I address a series of issues about central banking.

Moral Hazard

The existence of central banks with discretionary powers in a fiat currency world creates moral hazard in the financial system. Because of the explicit and implicit "safety net" offered by the existence of central banks, private financial institutions cannot be observed behaving as they would in absence of moral hazard. Because of moral hazard in the financial system—privatization of gains from risky decisions and socialization of the losses—the trend has been toward evermore regulations and calls for closer supervision of financial companies. The resulting "permission-and-denial" regime opens ever wider the door to cronyism in the financial system.

For many years it has been recognized that "too big to fail" is a large and growing problem. In more recent years, more people are also beginning to understand that "too politically well-connected and powerful to effectively supervise" has become a major obstacle to meaningful financial system reforms. For the biggest banks, the political action committees are more important than the credit policy committees.

Moral hazard also emerges in other institutions of government as a result of the *presence* of central banks with discretionary powers. It is evident in a lessening of political pressures on tax and regulatory authorities of government to undertake the difficult decisions and actions that would enhance the "magic of the marketplace" and foster growth. Even when most observers recognize that the "sand in the gears" preventing more robust economic prosperity arises from the regulatory and tax policies of government, the mistaken belief that monetary actions can overcome those obstacles results in an adverse mix of policies by government. Economists should understand that monetary authorities cannot correct the mistakes of the rest of government. But, as we have seen, politicians have strong incentives to blame the central bank when the economy is not doing well, but take all the credit when employment is high and inflation is low.

The Myth of Central Bank Independence

Central banks and ministries of finance are not able to resist the political pressures to alter the stance of policies in response to crises. Who would want to be the secretary of the Treasury or chairman of the Fed that is blamed for another Great Depression? Moreover, once central banks make the mistake of engaging in quasi-fiscal actions in futile attempts to correct mistakes of the rest of government, there is no feasible exit strategy that does not involve collateral damage. When economic activity is constrained or adversely impacted by government's anti-supply-side taxation and regulatory actions, central banks come under great pressure to engage in demand-side monetary actions as a counter measure. That mistake cannot be reversed without negative consequences. "Soft-landing" is a myth.

An argument can be made that the institutional setting of the European Central Bank gives it more independence than any other central bank because it does not have a single ministry of finance or single parliament to answer to. National central banks are in the position that former Fed chairman William McChesney Martin liked to describe as "independent within government." Another former Fed chairman, Arthur Burns, asserted on occasion, "We dare not exercise our independence for fear of losing it." As the Fed celebrates its centennial, politicians have come to view it as an activist instrument of

economic policymaking responsible for pursuing multiple objectives of financial stability, employment, output, low interest rates, and tolerable inflation—all with the single tool of the power to create fiat currency.

Rules versus Discretion

The FOMC is institutionally designed to exercise discretion rather than adopt and follow rules in the formulation of policy actions. A schedule of committee meetings every six weeks to reconsider the stance of policy causes deliberations to focus on recently reported data and recently revised forecasts of future economic activity. The 1933 and 1935 legislations "fixing" the FOMC as a separate, legal, government body—without budget, staff, buildings, or any other identifiable characteristics of a government entity—created a "monetary authority" to formulate and implement what has been called "monetary policy." Not only was the U.S. currency not defined in terms of specie—as had been the case in 1913—but it was illegal for ordinary citizens to even own gold. Clearly, by the time the central bank had passed its 20th birthday, the Congress intended that our monetary system was one of a managed fiat currency.

Monetary Discipline

The ongoing dialogue in academic circles regarding "rules versus discretion" has not found a satisfactory solution to the issue of enforcement of adopted rules. The post-WWII Bretton Woods System—often referred to as a form of gold-exchange standard—required that the United States maintain a hard peg of its currency to gold, and that other countries peg their currency to the dollar and be able to exchange excess dollars for gold at the fixed U.S. dollar price. This obligation on the part of the United States to redeem the dollar for gold was intended to provide essential discipline on the world's reserve currency.

However, by the 1960s the United States began to abuse the "exorbitant privilege" of borrowing in its own currency. Washington ran larger budget deficits, reflecting the Vietnam War and the War on Poverty, and supplied more dollar-denominated bonds than the world wanted to acquire. By mid-decade, emerging U.S. inflationary pressures were eroding the real value of the growing stocks of dollar-denominated bonds held by central banks and governments around

the world. One large holder, Germany, faced upward pressure on its currency, yet refrained from seeking gold in exchange for surplus dollars, but other countries challenged the Johnson administration to honor the commitment to absorb the surplus dollars in exchange for gold. The drain on the U.S. gold stock was supposed to impose monetary and fiscal discipline, but that failed.

Rather than constrain the creation of excess dollar-denominated bonds by reducing spending or raising taxes, the Johnson administration chose capital controls, taxation of foreign travel by its citizens, and subsidies to exporters as temporary measures to address the imbalance between the supply and demand for dollars. First suspension, then ending the London gold pool, followed in 1968 by ending the gold-backing of Federal Reserve notes, prolonged (with the help of moral suasion on foreign governments) the period that the U.S. dollar was notionally (but not really) convertible into gold at $35/oz.

A brief lurch toward fiscal discipline in the final year of the failing Johnson presidency, in the form of a 10 percent surtax on personal and business incomes, helped stabilize the exchange regime and was aided by revaluation of the German currency. However, the mild U.S. recession of 1970 precipitated "pedal to the metal" monetary policy, and as 1971 got under way the world was once again flooded with excess dollars.

By mid-1971, U.S. policymakers faced a dilemma: (1) continue with highly expansionary monetary and fiscal policies and face continued international pressures to convert surplus foreign-held dollars into a dwindling gold supply as well as accelerating inflation in the following presidential election year, or (2) curtail monetary growth and fiscal deficits and risk a return to recession during the election cycle. They chose instead the "magic wand" of floating the currency and imposing wage and price controls that allowed them to open further the monetary and fiscal spigots. The post-election result was accelerating inflation, a falling dollar, collapse of the Bretton Woods system, and then another lurch toward restraint and a worse recession.

Just a few years later excess monetary creation produced reacceleration of inflation and the rest of the world again challenged the United States to restore fiscal and monetary discipline during the failing presidency of Jimmy Carter. This time the "exorbitant privilege" to borrow in its own currency was revoked when foreign governments and central banks demanded that the United States issue

"Carter bonds" denominated in German and Swiss currencies. For the first time in decades the ability of the United States to service additional foreign-held debt would not be based on tax collections or on creation of additional liabilities of its central bank, but on the earnings from exports and proceeds from foreign inflows.

This externally imposed discipline ushered in the "Great Moderation," which was characterized by falling budget deficits (and even occasional surpluses), falling inflation, and rapid economic growth. The essential point is that U.S. policymakers were not disciplined by institutional arrangements within the central bank or by pressures from elsewhere within the U.S. government.

We now have a century of experience that congressional oversight of a national monetary authority is not effective. The few occasions of discipline emerging from competition with other, more effectively managed, foreign currencies suggest that opening the door to *domestic* alternatives to Fed-issued notes would offer the potential for greater monetary stability than a monopoly currency.

Transparency

Deliberations by central bank policymakers in the formulation of discretionary policy actions must be conducted in secret, especially when operating under a dual mandate involving short-run tradeoffs. Debates about possible discretionary responses to certain contingencies, if broadcast live on C-SPAN, would cause private market participants to alter their behavior. Because central bank actions and operations are conducted within the national and international financial systems, the actions and reactions of other participants in financial markets will influence the transmission of monetary actions to the real economy. Generally, policymakers know that if their preference is to target a price-axis variable—such as an overnight interbank rate or an exchange rate—such targets cannot be preannounced. That is, policymakers cannot announce that they plan to raise short-term interest rates *gradually* by some incremental amounts over an announced time horizon. "Forward guidance" with regard to policy targets is possible only with horizontal-axis magnitudes—such as bank reserves, central bank money, or monetary aggregates.

The "exit strategy" for the FOMC under Chairman Paul Volcker in 1979 was to announce a target of total reserve growth and let markets set interest rates. That lesson was forgotten—or never learned—by current policymakers. Exiting the current zero interest rate

regime has proven to be quite messy because there simply is no way to be transparent about the end without creating considerable turbulence in financial markets.

Open-Mouth Policies

There was a time not long ago when the FOMC directive would give a form of forward guidance by announcing that although the decision at a meeting was to leave the fed funds rate unchanged, a majority of the committee had a "bias to raise" or a "bias to lower" the rate at a subsequent meeting. The idea was that such announcements would alter private market participants' behavior in predictable ways and achieve some desired effect without actually having to do anything.

However, because there is always more public and political pressure to lower rates than to raise rates, it goes without saying that there is a permanent institutional bias toward lower rates. The unique status of the U.S. central bank as a "creature of Congress"—rather than a part of the executive branch—reinforced the natural bias toward lower interest rates.

The effect of the institutional bias was that the committee of 19 policymakers was always quicker to reach a consensus that the target rate should be lowered, versus overcoming the reluctance to take the heat for raising rates. Rare has been the member of Congress or the executive branch that complained that the monetary authorities were maintaining interest rates at too low a level—until very recently.

Neutral Monetary Policy

There was a time not long ago when the FOMC would attempt to determine at what level of the fed funds rate the stance of monetary policy was "neutral"—neither expansionary nor contractionary with respect to economic activity. This notion of a "neutral" fed funds rate (either nominal or real) was different from a "natural" rate in the Wicksellian sense. On occasion, changes in an estimated real rate and a perceived natural rate give opposite signals about the stance of policy. Elsewhere I have argued that such was the case in the late 1990s during the favorable "productivity surprise" (Jordan 2006). Now, we have the mirror image of that experience. Conventional real rate analysis holds that if the central bank (perhaps reinforced by debt and deficits in the fiscal policies) can generate expectations of higher

inflation, the real interest rate will be lower and thus stimulative. A natural rate analysis suggests the opposite. To the extent that expectations of higher inflation cause nominal bond yields to be higher while there are other reasons to believe the natural rate is low, the stance of policy is more restrictive than if the expectations of higher inflation were not increasing market rates.

Today, however, the overnight interbank rate has become meaningless as a policy instrument. The volume of transactions in the fed funds market had largely dried up by the middle of 2011. Announcing a target level of the fed funds rate has no meaning if there are no transactions and the operations desk of the central bank does not need to make outright purchases or sales of securities or repurchase agreements to maintain the rate. For now, the rate is as meaningless as the official price of gold—a price at which there are neither purchases nor sales. Despite occasional stories in the financial press about the Fed "raising short-term interest rates," the operations desk has no tools available for influencing the overnight interbank rate. Because the Fed does not own any short-term Treasury bills, the desk cannot intervene in the overnight market to affect the fed funds rate. However, as of this writing (December 2013) the New York Fed has announced a program to develop a new tool—reverse repurchase agreements of Treasury securities and mortgage-backed securities—for setting short-term interest rates.

Aggregate Demand Management

Prior to the era of quantitative easing (QE), the notion that monetary actions can and should be employed so as to influence total nominal spending in the national economy remained the dominant framework. This was in spite of the increasing globalization of commerce and worldwide use of the U.S. currency in pricing goods and assets and in conducting transactions. If an analytical framework exists that relates the several rounds of QE and the massive increase in excess reserves to any measure of economic activity, it is a remarkably well-kept secret.

Nevertheless, a small network of bloggers that fly the banner of "market monetarists" have aggressively promoted the notion that the central bank should somehow target a growth rate of nominal GDP. Whatever the theoretical merits of that objective, the only suggestion for a possible directive the FOMC could adopt to instruct the trading

desk is Scott Sumner's idea of a type of "futures market" of GDP forecasts that might serve as an indicator variable signaling the need for more expansionary or restrictive policies.

Monetary Targeting

The success in the 1970s and 1980s of targeting various monetary aggregates with a view to influence nominal spending in the economy depended on unique institutional arrangements. The empirical relationships between the monetary base and monetary aggregates (money multipliers), and between the monetary aggregates and nominal GDP (money velocity) were altered as a result of legislation and regulation, financial innovations (e.g., hypothecation, credit default swaps, and collateralized debt obligations), and globalization of commerce. Now, under the QEs, the link between central bank monetary base and commercial bank liabilities is completely broken.

Deflation

Unlike a gold standard under which the purchasing power of money could increase, a central bank managed fiat currency can only decline in purchasing power. There is no support in central banks for the idea of "virtuous deflation"—a rise in the purchasing power of money resulting from increased productivity and technological innovations. The concept of a "productivity norm" (as suggested by Selgin 1990) for measures of output prices is never considered. The fears of the consequences of deflation in the banking system are so pervasive that there is an institutional bias in favor of more rapid debasement of the currency, rather than tolerate the risk of accidently permitting a rise in purchasing power. Moreover, there is no consideration of asset prices in assessing the trends in the purchasing power of money. Instead, asset prices are viewed as an instrument in achieving objectives of employment and output.

The Duel Mandate

The notion that a monetary authority has responsibility for both the purchasing power of money and the rate of unemployment institutionalizes the Phillips Curve tradeoff in the formulation of policy actions. Because the lags of policy actions are not only uncertain but also different with respect to real and nominal magnitudes, there is a

committee bias to focus on short-run effects. Ironically, even during the Great Moderation of the 1990s—when unemployment trended well below the assumed "natural unemployment rate" and inflation did not accelerate—policymakers gave even *greater* attention to the Phillips Curve analysis.

At the July 1995 meeting of the FOMC there was an extended discussion of the longer-run objectives of the policymakers. One leader of the initial debate was Fed Governor Janet Yellen, who stated:

> The key question is how much permanent unemployment rises as inflation falls, and here the methodology used to assess the consequences does matter. These authors [George Akerlof, Bill Dickens, and George Perry] used general equilibrium methodology and here is what they find: The natural rate rises above its assumed 5.8 percent minimum to 6.1 percent as measured inflation falls from 4 down to 2 percent; the natural rate rises to 6.5 percent at 1 percent inflation, and then to 7.6 percent at zero percent inflation [Jordan 2012: 23].

This astonishing invocation of the "natural rate of unemployment" was actually quite common in such meetings even though there was (is?) no theoretical or empirical support for it. Even though the economy at the end of the last century was on a track to achieve under 4 percent unemployment and at the same time continue to experience less than 2 percent inflation, the Phillips Curve had resurfaced in policy discussions in new clothing, using Friedman's language, but ignoring everything he had said about the notion of some "tradeoff" that could, or should, be exploited by policymakers.

Gap Analysis

Closely associated with the Phillips Curve approach, "gap analysis" incentivizes policymakers to give considerable weight to estimates and forecasts of "aggregate supply" (potential output) and formulate policies with a view to "manage aggregate demand" in order to influence inflation rates and unemployment rates. This, of course, requires considerable confidence in forecasts of productivity, employment (including labor force participation rates), and the impact of various "supply shocks." It also assumes there is some dependable linkage between actions taken, and "aggregate demand" somehow measured.

Quantity Easing

Advocacy of expansion of the central bank's balance sheet in the face of a "lower bound" of controllable interest rates first arose in the context of the classical "inside money/outside money" paradigm. That is, the controllable "outside money" (monetary base) represented by the Fed's balance sheet in a fiat money world is assumed to have a direct and predictable effect on the "inside money" represented by commercial bank deposit liabilities. The linkage depends on the actions of commercial banks to minimize surplus reserve balances by making loans or acquiring financial securities. However, the emergence of "shadow banking" channels for transmitting credit have caused the link between outside money and economic activity to become highly unreliable. Furthermore, there is no theoretical model or empirical evidence explaining the parameters of banks' demand for "excess" reserve balances.

The Mix between Monetary and Fiscal Policy

When monetary policy becomes fiscal policy, the mix is complete. There once was a notion that monetary actions could be restrictive and fiscal policy expansionary, or the other way around. That became nonsense when monetary actions in QE mode morphed into fiscal actions carried out by the central bank. Of course, recent debates—especially in Europe—about whether "fiscal austerity" is contractionary have muddied the dialogue. The massive deficits and national debts of some countries have caused some policymakers to argue that long-term, sustainable prosperity can be achieved only by reducing government spending and/or raising more tax revenue—the opposite of conventional arguments about fiscal policies. But the real issue is whether actions of central banks are actually fiscal, or at least quasi-fiscal, in nature. That is, if the actions of reserve banks could (and maybe should) be conducted by a bureau of the ministry of finance/treasury, is it still useful to make a distinction between monetary and fiscal policies?

Once open market operations mean nothing more than monetizing government bonds and acquiring a large portfolio of private debt instruments such as mortgage-backed securities, or attempting to "twist" the yield curve by altering the term-structure of publically held government debt, traditional views of monetary policies and actions are no longer useful. The massive open market operations

under QE have broken the link between outside money and inside money (the money multipliers), have rendered the targeting of the overnight bank lending rate impossible, and have distorted the income-velocity of money that once was a prominent feature of monetary analyses.

It is reasonable to question whether QE actions by the monetary authority are properly viewed as expansionary. While it is common to see massive portfolio purchases by reserve banks as "easy" money policies, there is another way to think about it. First, there is a view that low nominal interest rates are a product of QE, low interest rates are expansionary, and thus QE is expansionary. An alternative view is that the low nominal interest rates are not at all the product of QE, but a reflection of the tax and regulatory regime that discourages private investment—and are also a product of the shifting of demographics toward a rapidly aging population. There is a conjecture by policymakers that QE means rising asset prices, so a "wealth effect" will eventually produce rising aggregate demand and a return to prosperity. That hasn't worked out well so far, and now the fears that future implementation of an exit strategy from QE will be contractionary raises cautions about long-term investments and other commitments. One doesn't have to understand Ricardo to understand why households in several QE countries are cautious about their financial future.

Potentially a bigger problem with the view that QE is expansionary is the other traditional channel of monetary policy—the effects of the Fed's balance sheet on the consolidated balance sheets of commercial banks. The central bank's balance sheet (outside money) was historically connected to the balance sheets of banks via fairly predictable money multipliers. The monetary base created by the central bank led to the expansion of bank balance sheets, and the greater deposits created inside these commercial banks constituted the bulk of the nation's money supply and could be reliably transmitted to the economy at large via money velocity.

However, a part of the process of fiat money creation is bank acquisition of earning assets (i.e., loans and securities). The supply of earning assets to banks (sometimes called the "demand for bank credit") is derived from the aggregate supply of claims to future earning streams—bonds and borrowings of households and businesses to be repaid out of future earnings. Banks compete for such earning assets against numerous domestic and foreign institutional

investors (e.g., pension funds, mutual funds, and life insurance companies). The appetite of such nonbank institutional investors for earning assets is influenced by factors such as demographic trends and target-income requirements. In sum, the super-low interest rate environment (whether or not attributable to the central bank) means larger stocks of earning assets are necessary in order to generate the necessary earnings, leaving a smaller supply offered to banks.

Because QE by monetary authorities reduces the stock of such earning assets (other things the same), the supply offered to banks is smaller yet. In other words, monetization of government obligations and acquisition of mortgage-backed securities by a central bank shrinks the floating supply of instruments that might otherwise be acquired by banks. Furthermore, if business demands for bank loans are suppressed because government taxation and regulation diminish the availability of profitable investment opportunities, and household demands for bank loans are restrained for a host of reasons including demographics, the multiplication of central bank *outside* money into commercial bank *inside* money does not occur with the previous reliability.

The result is that massive expansion of the Fed's balance sheet under a program of QE may, in fact, operate perversely. Without QE operations of the monetary authorities, commercial banks would have seen a greater supply of earning assets (or demand for bank credit), and the expansion of their own balance sheets would have increased the nation's money supply by more than has occurred under QE.

Conclusion

When the reserve banks were incorporated and then opened for business in late 1914, nothing they did would have been construed to be what later came to be called monetary policy. Now, almost a century later, the same can be said again.

In the beginning, the U.S. central bank was supposed to be a lender of last resort. But even after almost 100 years there are no established rules for providing such a safety net. No one can say who will and who will not be bailed out in the future. Instead of lending only to inject liquidity into financial markets, the Fed has also loaned to insolvent institutions—including banks, nonbank financial

companies, and even nonfinancial companies. No one can say who is, and who is not, going to receive loans in the future, for what amounts, and for what duration. There are no effective rules governing central bank lending.

Congress delegated its constitutional authority to "coin money and regulate the value thereof" to a central bank but has consistently failed to provide effective oversight of the money-creation process. Worse, Congress saddled the central bank with an unworkable dual mandate and an institutional bias toward artificially low interest rates. The central bank is now dominated by people who believe inflation occurs as a result of a too-low unemployment rate, and that inflation is not a risk so long as unemployment is above some threshold. Indeed, monetary policymakers will not give greater weight to inflation until they perceive that too many people are working, earning a paycheck, and supporting their families.

The Fed's century-long track record includes the Great Depression of the 1930s; the Great Inflation of the 1970s; episodes of bubbles, panics, and crises; and an average inflation that left today's dollar worth only a small fraction of the 1913 dollar. The challenge is to establish institutional arrangements that prevent the next hundred years from being simply more of the same.

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