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A Brief History of Central Banks

by Michael D. Bordo

One of the world's foremost economic historians explains the forces behind the development of modern central banks, providing insight into their role in the financial system and the economy.

A central bank is the term used to describe the authority responsible for policies that affect a country's supply of money and credit. More specifically, a central bank uses its tools of monetary policy—open market operations, discount window lending, changes in reserve requirements—to affect short-term interest rates and the monetary base (currency held by the public plus bank reserves) in order to achieve important policy goals.

There are three key goals of modern monetary policy. The first and most important is price stability or stability in the value of money. Today this means maintaining a sustained low rate of inflation. The second goal is a stable real economy, often interpreted as high employment and high and sustainable economic growth. Another way to put it is to say that monetary policy is expected to smooth the business cycle and offset shocks to the economy. The third goal is financial stability. This encompasses an efficient and smoothly running payments system and the prevention of financial crises.

Beginnings

The story of central banking goes back at least to the seventeenth century, to the founding of the first institution recognized as a central bank, the Swedish Riksbank. Established in 1668 as a joint stock bank, it was chartered to lend the government funds and to act as a clearing house for commerce. A few decades later (1694), the most famous central bank of the era, the Bank of England, was founded also as a joint stock company to purchase government debt. Other central banks were set up later in Europe for similar purposes, though some were established to deal with monetary disarray. For example, the Banque de France was established by Napoleon in 1800 to stabilize the currency after the hyperinflation of paper money during the French Revolution, as well as to aid in government finance. Early central banks issued private notes which served as currency, and they often had a monopoly over such note issue.

While these early central banks helped fund the government's debt, they were also private entities that engaged in banking activities. Because they held the deposits of other banks, they came to serve as banks *for* bankers, facilitating transactions between banks or providing other banking services. They became the repository for most banks in the banking system because of their large reserves and extensive networks of correspondent banks. These factors allowed them to become the lender of last resort in the face of a financial crisis. In other words, they became willing to provide emergency cash to their correspondents in times of financial distress.

Transition

The Federal Reserve System belongs to a later wave of central banks, which emerged at the turn of the twentieth century. These banks were created primarily to consolidate the various instruments that people were using for currency and to provide financial stability. Many also were created to manage the gold standard, to which most countries adhered.

The gold standard, which prevailed until 1914, meant that each country defined its currency in terms of a fixed weight of gold. Central banks held large gold reserves to ensure that their notes could be converted into gold, as was required by their charters. When their reserves declined because of a balance of payments deficit or adverse domestic circumstances, they would raise their discount rates (the interest rates at which they would lend money to the other banks). Doing so would raise interest rates more generally, which in turn attracted foreign investment, thereby bringing more gold into the country.

Central banks adhered to the gold standard's rule of maintaining gold convertibility above all other considerations. Gold convertibility served as the economy's nominal anchor. That is, the amount of money banks could supply was constrained by the value of the gold they held in reserve, and this in turn determined the prevailing price level. And because the price level was tied to a known commodity whose long-run value was determined by market forces, expectations about the future price level were tied to it as well. In a sense, early central banks were strongly committed to price stability. They did not worry too much about one of the modern goals of central banking—the stability of the real economy—because they were constrained by their obligation to adhere to the gold standard.

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Central banks of this era also learned to act as lenders of last resort in times of financial stress—when events like bad harvests, defaults by railroads, or wars precipitated a scramble for liquidity (in which depositors ran to their banks and tried to convert their deposits into cash). The lesson began early in the nineteenth century as a consequence of the Bank of England's routine response to such panics. At the time, the Bank (and other European central banks) would often protect their own gold reserves first, turning away their correspondents in need. Doing so precipitated major panics in 1825, 1837, 1847, and 1857, and led to severe criticism of the Bank. In response, the Bank adopted the "responsibility doctrine," proposed by the economic writer Walter Bagehot, which required the Bank to subsume its private interest to the public interest of the banking system as a whole. The Bank began to follow Bagehot's rule, which was to lend freely on the basis of any sound collateral offered—but at a penalty rate (that is, above market rates) to prevent moral hazard. The bank learned its lesson well. No financial crises occurred in England for nearly 150 years after 1866. It wasn't until August 2007 that the country experienced its next crisis.

The U.S. experience was most interesting. It had two central banks in the early nineteenth century, the Bank of the United States (1791–1811) and a second Bank of the United States (1816–1836). Both were set up on the model of the Bank of England, but unlike the British, Americans bore a deep-seated distrust of any concentration of financial power in general, and of central banks in particular, so that in each case, the charters were not renewed.

There followed an 80-year period characterized by considerable financial instability. Between 1836 and the onset of the Civil War—a period known as the Free Banking Era—states allowed virtual free entry into banking with minimal regulation. Throughout the period, banks failed frequently, and several banking panics occurred. The payments system was notoriously inefficient, with thousands of dissimilar-looking state bank notes and counterfeits in circulation. In response, the government created the national banking system during the Civil War. While the system improved the efficiency of the payments system by providing a uniform currency based on national bank notes, it still provided no lender of last resort, and the era was rife with severe banking panics.

The crisis of 1907 was the straw that broke the camel's back. It led to the creation of the Federal Reserve in 1913, which was given the mandate of providing a uniform and elastic currency (that is, one which would accommodate the seasonal, cyclical, and secular movements in the economy) and to serve as a lender of last resort.

The Genesis of Modern Central Banking Goals

Before 1914, central banks didn't attach great weight to the goal of maintaining the domestic economy's stability. This changed after World War I, when they began to be concerned about employment, real activity, and the price level. The shift reflected a change in the political economy of many countries—suffrage was expanding, labor movements were rising, and restrictions on migration were being set. In the 1920s, the Fed began focussing on both external stability (which meant keeping an eye on gold reserves, because the U.S. was still on the gold standard) and internal stability (which meant keeping an eye on prices, output, and employment). But as long as the gold standard prevailed, external goals dominated.

Unfortunately, the Fed's monetary policy led to serious problems in the 1920s and 1930s. When it came to managing the nation's quantity of money, the Fed followed a principle called the real bills doctrine. The doctrine argued that the quantity of money needed in the economy would naturally be supplied so long as Reserve Banks lent funds only when banks presented eligible self-liquidating commercial paper for collateral. One corollary of the real bills doctrine was that the Fed should not permit bank lending to finance stock market speculation, which explains why it followed a tight policy in 1928 to offset the Wall Street boom. The policy led to the beginning of recession in August 1929 and the stock market crash in October. Then, in the face of a series of banking panics between 1930 and 1933, the Fed failed to act as a lender of last resort. As a result, the money supply collapsed, and massive deflation and depression followed. The Fed erred because the real bills doctrine led it to interpret the prevailing low short-term nominal interest rates as a sign of monetary ease, and they believed no banks needed funds because very few member banks came to the discount window.

After the Great Depression, the Federal Reserve System was reorganized. The Banking Acts of 1933 and 1935 shifted power definitively from the Reserve Banks to the Board of Governors. In addition, the Fed was made subservient to the Treasury.

The Fed regained its independence from the Treasury in 1951, whereupon it began following a deliberate countercyclical policy under the directorship of William McChesney Martin. During the 1950s this policy was quite successful in ameliorating several recessions and in maintaining low inflation. At the time, the United States and the other advanced countries were part of the Bretton Woods System, under which the U.S. pegged the dollar to gold at $35 per ounce and the other countries pegged to the dollar. The link to gold may have carried over some of the credibility of a nominal anchor and helped to keep inflation low.

The picture changed dramatically in the 1960s when the Fed began following a more activist stabilization policy. In this decade it shifted its priorities from low inflation toward high employment. Possible reasons include the adoption of Keynesian ideas and the belief in the Phillips curve trade-off between inflation and unemployment. The consequence of the shift in policy was the buildup of inflationary pressures from the late 1960s until the end of the 1970s. The causes of the Great Inflation are still being debated, but many economists view the Fed's policy during this era as faulty. The restraining influence of the nominal anchor disappeared, and for the next two decades, inflation expectations took off.

The inflation ended with the Fed's aggressive anti-inflation policy from 1979 to 1982, which involved monetary tightening and the raising of policy interest rates to double digits. The policy led to a sharp recession, but it was successful in breaking the back of high inflation expectations. In the following decades, inflation declined significantly and has stayed low ever since. Since

the early 1990s the Fed has followed a policy of implicit inflation targeting, using the federal funds rate as its policy instrument. In many respects, the policy regime currently followed echoes the convertibility principle of the gold standard, in the sense that the public has come to believe in the credibility of the Fed's commitment to low inflation.

A key force in the history of central banking has been central bank independence. The original central banks were private and independent. They depended on the government to maintain their charters but were otherwise free to choose their own tools and policies. Their goals were constrained by gold convertibility. In the twentieth century, most of these central banks were nationalized and completely lost their independence. Their policies were dictated by the fiscal authorities. The Fed regained its independence after 1951, but its independence is not absolute. It must report to Congress, which ultimately has the power to change the Federal Reserve Act. Other central banks had to wait until the 1990s to regain their independence.

■ Financial Stability

An increasingly important role for central banks is financial stability. The evolution of this responsibility has been similar across the advanced countries. In the gold standard era, central banks developed a lender-of-last-resort function, following Bagehot's rule. But financial systems became unstable between the world wars, as widespread banking crises plagued the early 1920s and the 1930s. The U.S. experience was the worst. The response to banking crises in Europe at the time was generally to bail out the troubled banks with public funds. This approach was later adopted by the United States with the Reconstruction Finance Corporation, but on a limited scale. After the Depression, every country established a financial safety net, comprising deposit insurance and heavy regulation that included interest rate ceilings and firewalls between financial and commercial institutions. As a result, there were no banking crises from the late 1930s until the mid-1970s anywhere in the advanced world.

This changed dramatically in the 1970s. The Great Inflation undermined interest rate ceilings and inspired financial innovations designed to circumvent the ceilings and other restrictions. These innovations led to deregulation and increased competition. Banking instability reemerged in the United States and abroad, with such examples of large-scale financial disturbances as the failures of Franklin National in 1974 and Continental Illinois in 1984 and the savings and loan crisis in the 1980s. The reaction to these disturbances was to bail out banks considered too big to fail, a reaction which likely increased the possibility of moral hazard. Many of these issues were resolved by the Depository Institutions Deregulation and Monetary Control Act of 1980 and the Basel I Accords, which emphasized the holding of bank capital as a way to encourage prudent behavior.

Another problem that has reemerged in modern times is that of asset booms and busts. Stock market and housing booms are often associated with the business cycle boom phase, and busts often trigger economic downturns. Orthodox central bank policy is to not defuse booms before they turn to busts for fear of triggering a recession but to react after the bust occurs and to supply ample liquidity to protect the payments and banking systems. This was the policy followed by Alan Greenspan after the stock market crash of 1987. It was also the policy followed later in the incipient financial crises of the 1990s and 2000s. Ideally, the policies should remove the excess liquidity once the threat of crisis has passed.

■ Challenges for the Future

The key challenge I see facing central banks in the future will be to balance their three policy goals. The primary goal of the central bank is to provide price stability (currently viewed as low inflation over a long-run period). This goal requires credibility to work. In other words, people need to believe that the central bank will tighten its policy if inflation threatens. This belief needs to be backed by actions. Such was the case in the mid-1990s when the Fed tightened in response to an inflation scare. Such a strategy can be greatly enhanced by good communication.

The second policy goal is stability and growth of the real economy. Considerable evidence suggests that low inflation is associated with better growth and overall macroeconomic performance. Nevertheless, big shocks still occur, threatening to derail the economy from its growth path. When such situations threaten, research also suggests that the central bank should temporarily depart from its long-run inflation goal and ease monetary policy to offset recessionary forces. Moreover, if market agents believe in the long-run credibility of the central bank's commitment to low inflation, the cut in policy interest rates will not engender high inflation expectations. Once the recession is avoided or has played its course, the central bank needs to raise rates and return to its low-inflation goal.

The third policy goal is financial stability. Research has shown that it also will be improved in an environment of low inflation, although some economists argue that asset price booms are spawned in such an environment. In the case of an incipient financial crisis such as that just witnessed in August 2007, the current view is that the course of policy should be to provide whatever liquidity is required to allay the fears of the money market. An open discount window and the acceptance of whatever sound collateral is offered are seen as the correct prescription. Moreover, most monetary economists agree that the funds should be offered at a penalty rate. The Fed followed these rules in September 2007, although the bulk of funds were provided through open market operations. Once the crisis is over, which generally is in a matter of days or weeks, the central bank must remove the excess liquidity and return to its inflation objective.

The Federal Reserve followed this strategy after Y2K. When no financial crisis occurred, it promptly withdrew the massive infusion of liquidity it had provided. By contrast, after providing funds following the attacks of 9/11 and the technology bust of 2001, it permitted the additional funds to remain in the money market once the threat of crisis was over in order to resist deflationary pressures. Some economists assert that if the markets had not been infused with so much liquidity for so long, interest rates would not have been as low in recent years as they have been, and the housing boom might not have as expanded as much as it did.

A second challenge related to the first is for the central bank to keep abreast of

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financial innovations, which can derail financial stability. Innovations in the financial markets are a challenge to deal with, as they represent attempts to circumvent regulation as well as to reduce transactions costs and enhance leverage. The recent subprime crisis exemplifies the danger, as many problems were caused by derivatives created to package mortgages of dubious quality with sounder ones so the instruments could be unloaded off the balance sheets of some financial institutions. This strategy, designed to dissipate risk, may have backfired because of the opacity of the new instruments.

A third challenge facing the Federal Reserve in particular is whether to adopt an explicit inflation targeting objective like the Bank of England, the Bank of Canada, and other central banks. The advantages of doing so are that it simplifies policy and makes it more transparent, which eases communication with the public and enhances credibility. However, it might be difficult to combine an explicit target with the Fed's dual mandate of price stability and high employment.

A fourth challenge for all central banks is to account for globalization and other supply-side developments, such as political instability and oil price and other shocks, which are outside of their control but which may affect global and domestic prices.

The final challenge I wish to mention concerns whether implicit or explicit inflation targeting should be replaced with price-*level* targeting, whereby inflation would be kept at zero percent. Research has shown that a price level may be the superior target, because it avoids the problem of base drift (where inflation is allowed to cumulate), and it also has less long-run price uncertainty. The disadvantage is that recessionary shocks might cause a deflation, where the price level declines. This possibility should not be a problem if the nominal anchor is credible, because the public would realize that inflationary and deflationary episodes are transitory and prices will always revert to their mean, that is, toward stability.

Such a strategy is not likely to be adopted in the near future because central banks are concerned that deflation might get out of control or be associated with recession on account of nominal rigidities. In addition, the transition would involve reducing inflation expectations from the present plateau of about 2 percent, which would likely involve deliberately engineering a recession—a policy not likely to ever be popular.

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