The History of Monetary Policy

Michael D. Bordo
Rutgers University,
Cambridge University and NBER

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Today monetary policy is the principle way in which governments influence the macroeconomy. To implement monetary policy the monetary authority uses its policy instruments(short -term interest rates or the monetary base) to achieve its desired goals of low inflation and real output close to potential. Monetary policy has evolved over the centuries along with the development of the money economy.

The Origins

Debate swirls between historians, economists , anthropologists and numismatists over the origins of money. In the west it is commonly believed that coins first appeared in ancient Lydia in the 8th century BC. Some date the origins to ancient China.

Money evolved as a medium of exchange, store of value and unit of account. According to one authority Hicks (1969) following Menger (1892), its rise was associated with the growth of commerce. Traders, in addition to the goods they traded in would hold stocks of another good which was easily stored, widely recognized , and divisible, with precious metals evolving as the best example This good would serve as the unit of account and then as a medium of exchange .According to this story money first emerged from market activity.

Governments became involved when the monarch realized that it was easier to pay his soldiers in terms of generalized purchasing power than with particular goods. This led to the origin of seigniorage or the government's prerogative in the coining of money. Seigniorage originally represented the fee that the royal mint collected from the public to convert their holdings of bullion into coin. Governments generally since ancient times had a monopoly over the issue of coins (either licensing their production or producing them by themselves).

The earliest predecessors to monetary policy seem to be those of debasement where the government would call in the coins , melt them down and mix them with cheaper metals. They would either alter the weight or the quality of the coins (fineness).An alternative method used was to alter the unit of account (see Redish 2000, Sussman 1993 and Sargent and Velde 2003). The practice of debasement was widespread in the later years of the Roman empire (Schwartz 1973) but reached its perfection in the late middle ages in western Europe. Sussman (1993) describes how the French monarchs in the fifteenth century, unable to collect more normal forms of taxes, used debasement as a form of inflation tax to finance the ongoing Hundred Years War with the English. Debasement was really a form of fiscal rather than monetary policy but it set the stage for the later development of monetary policy using fiduciary money.

Fiduciary or paper money evolved from the operations of early commercial banks in Italy (Cipolla 1967) to economize on the precious metals used in coins. (Although there is evidence that paper money was issued by imperial decree in China centuries earlier (Chown 1994) This development is dated back to the goldsmiths who would issue warehouse receipts as evidence of their storing gold coins and bullion for their clients.

Eventually these certificates circulated as media of exchange. Once the goldsmiths learned that not all of the claims were redeemed at the same time, they were able to circulate claims of value greater than their specie reserves. Thus was borne fiduciary money (money not fully backed by specie) and fractional reserve banking. The goldsmiths and early commercial bankers learned by experience to hold a precautionary reserve sufficient to meet the demands for redemption in the normal course of business.

Governments only began issuing paper money in Europe in the eighteenth century . An early example was Sweden's note issue to finance its participation in the Seven Years War (Eagly 1969). Fiat money reached its maturity during the American Revolutionary wars when the Congress issued continentals to finance military expenditures. They were promissory notes to be convertible into specie but the promise was not kept. They were issued in massive quantities. However the rate of issue and the average inflation rate of 65% per annum (Rockoff 1984) was not far removed from the revenue maximizing rate of issue by a monopoly fiat money issuing central bank of the twentieth century (Bailey 1956.). During the French revolution the overissue of paper money, the assignats based initially on the value of seized church lands , led to a hyperinflation (White 1995).

An early predecessor of monetary policy was John Law's System . Law persuaded the Regent of France to convert the French national debt into stock in his Compagnie des Indes in 1719. He then used the stock as backing for the issue of notes in his Banque Royale. Note issue could then support and finance the issue of further shares. Law then conducted a proto typical form of monetary policy in 1719 to save his system when he attempted to both peg the exchange rate of notes in terms of specie and provide a support price to stem the collapse in the price of shares (Bordo 1987, Velde forthcoming).

Central Banks

Monetary policy is conducted by the monetary authority. It is the issuer of national currency and the source of the monetary base. Usually we think of central banks as fulfilling this function but in many countries , until well into the twentieth century ,in the absence of a central bank, it was performed by the Treasury or in some cases (Australia ,Canada, New Zealand) by a large commercial bank entrusted with the government's tax revenues (Goodhart 1989). The earliest central banks were established in the seventeenth century (The Swedish Riksbank founded in 1664, the Bank of England founded in 1694, the Banque de France (1800) and the Netherlands Bank (1814))to aid the fisc of the newly emerging nation states.

In the case of the Bank of England a group of private investors were granted a royal charter to set up a bank to purchase and help market government debt. The establishment of the Bank helped ensure the creation of a deep and liquid government debt market which served as the base of growing financial system (Dickson 1967, Rousseau and Sylla 2003). The Bank eventually evolved into a bankers bank by taking deposits from other nascent commercial banks. Its large gold reserves and monopoly privilege eventually allowed it to become a lender of last resort ie to provide liquidity to its correspondents in the face of a banking panic – a scramble by the public for liquidity.

Monetary policy as we know it today began by the Bank discounting the paper of other financial institutions, both government debt and commercial paper. The interest rate at which the Bank would lend, based on this collateral became known as Bank rate (in other countries as the discount rate). By altering this rate the Bank could influence credit conditions in the British economy. It could also influence credit conditions in the rest of the world by attracting or repelling short term funds (Sayers 1957).

A second wave of central banks was initiated at the end of the nineteenth century. It was not based explicitly on the fiscal revenue motive as had been the case with the first wave but to follow the rules of the gold standard and to iron out swings in interest rates induced by seasonal forces and by the business cycle. Included in this group are the Swiss National Bank 1907(Bordo and James 2007) and the Federal Reserve 1913 (Meltzer 2003) . Subsequent waves of new central banks followed in the interwar period as countries in the British Empire, the new states of central Europe and Latin America attempted to emulate the experiences of the advanced countries (Capie et al 1994).

Central Bank Independence

Although the early central banks had public charters, they were privately owned and they had policy independence. A problem that plagued the Bank of England in its early years was that it placed primary weight on its commercial activities and on several occasions of financial distress was criticized for neglecting the public good. Walter Bagehot formulated the Responsibility doctrine in 1873 according to which the Bank was to place primary importance on its public role as lender of last resort (Bagehot 1873).

From World War I onwards central banks focused entirely on public objectives and many fell under public control. Their objectives also changed from emphasis on maintaining specie convertibility towards shielding the domestic economy from external shocks and stabilizing real output and prices. This trend continued in the 1930s and after World War II. Moreover the Great Depression led to a major reaction against central banks accused of creating and exacerbating the Great Depression. In virtually every country monetary policy was placed under the control of the Treasury and fiscal policy became dominant. In every country central banks followed a low interest peg to both stimulate the economy and to aid the Treasury in marketing its debt.

Monetary policy was restored to the central banks in the 1950s, (eg in the U.S., after the Treasury- Federal Reserve Accord of 1951), and there followed a brief period of price stability until the mid 1960s. This was followed by a significant run up in inflation worldwide. The inflation was broken in the early 1980s by concerted tight monetary policies in the US, UK and other countries and a new emphasis placed on the importance of low inflation based on credible monetary policies. Central banks in many countries were granted goal independence and were given a mandate to keep inflation low.

Classical Monetary Policy

The true origin of modern monetary policy was under the classical gold standard, which prevailed from 1880 to 1914. The gold standard evolved from the earlier bimetallic regime. Under the gold standard all countries would define their currencies in terms of a fixed weight of gold and then all fiduciary money would be convertible into gold. The key role of central banks was to maintain gold convertibility. Central banks were also supposed to use their discount rates to speed up the adjustment to external shocks to the balance of payments, ie they were supposed to follow the "rules of the game" (Keynes 1930). In the case of a balance of payments deficit, gold would tend to flow abroad and reduce central bank's gold reserves. According to the rules the central bank would raise its discount rate. This would serve to depress aggregate demand and offset the deficit. At the same time the rise in rates would stimulate a capital inflow. The opposite set of policies was to be followed in the case of a surplus.

There is considerable debate on whether the rules were actually followed (Bordo and MacDonald 2005) . There is evidence that central banks sterilized gold flows and prevented the adjustment mechanism from working (Bloomfield 1959). Others paid attention to the domestic objectives of price stability or stable interest rates or stabilizing output (Goodfriend 1988). There is also evidence that because the major central banks were credibly committed to maintaining gold convertibility that they had some policy independence to let their interest rates depart from interest rate parity and to pursue domestic objectives (Bordo and MacDonald 2005)

After World War I the gold standard was restored but in the face of a changing political economy --the extension of the suffrage and organized labor(Eichengreen 1992) -- greater emphasis was placed by central banks on the domestic objectives of price stability and stable output and employment than on external convertibility. Thus for example the newly created Federal Reserve sterilized gold flows and followed countercyclical policies to offset two recessions in the 1920s (Meltzer 2003).

The Depression beginning in 1929 was likely caused by inappropriate monetary policy. The Federal Reserve followed the flawed Real Bills doctrine which exacerbated the downturn and the gold sterilization policies followed by the Fed and the Banque de France greatly weakened the adjustment mechanism of the gold standard. As mentioned above the central banks were blamed for the depression and monetary policy was downgraded until the mid 1950s.

The Goals of Monetary Policy

The goals of monetary policy have changed across monetary regimes. Until 1914, the dominant monetary regime was the gold standard. Since then the world has gradually shifted to a fiat money regime. Under the classical gold standard the key goal was gold convertibility with limited focus on the domestic economy. By the Interwar as mentioned above, gold convertibility was being overshadowed by emphasis on domestic price level and output stability and the regime shifted towards fiat money. This continued in the postwar. Under the 1944 Bretton Woods Articles of Agreement , countries were to maintain pegged exchange rates and central banks were to intervene in the foreign exchange market to do this, but the goal of domestic full employment was also given predominance. The Bretton Woods system evolved into a dollar gold exchange standard in which member currencies were convertible on a current account basis into dollars and the dollar was convertible into gold (Bordo 1993). A continued conflict between the dictates of internal and external balance was a dominant theme in that era as was the concern over global imbalance because the US , as center country of the system would provide through its balance of payments deficits and its role as a financial intermediary, more dollars than could be safely backed by its gold reserves(Triffin 1960).

The collapse of Bretton Woods between 1971 and 1973 , brought about largely because the U.S., the center country, followed an inflationary policy to finance both the Vietnam war and the Great Society ,ended any connection of the monetary regime to gold and the world moved to a pure fiat regime. In this new environment the balance was largely tipped in favor of domestic stability and coupled with the now dominant belief by central bankers in the Phillips curve tradeoff between unemployment and inflation (Phillips 1958), this led to focus on maintaining full employment at the expense of inflation.

The resulting Great Inflation of the 1970s was finally ended in the early 80s by central banks following tight monetary policies. Since then the pendulum has again swung towards the goal of low inflation and the belief that central banks should eschew control of real variables (Friedman 1968, Phelps 1968).

The Instruments of Monetary Policy

The original policy instrument was the use of the discount rate and rediscounting. Open market operations(the buying and selling of government securities)was first developed in the 1870s and 1880s by the Bank of England in order to make Bank rate effective, ie to force financial institutions to borrow (Sayers 1957). Other countries with less developed money markets than Britain used credit rationing (France) and gold policy (operations to alter the gold points and impede the normal flow of gold (Sayers 1936).

In the interwar the newly established Federal Reserve initially used the discount rate as its principal tool but after heavy criticism for its use to roll back the post World War I inflation and thereby creating one of the worst recessions of the twentieth century in 1920-21 (Meltzer 2003), the Fed shifted to open market policy, its principal tool ever since. It also began changing reserve requirements in the 1930s. Its policy of doubling reserve requirements in 1936 was later blamed for the subsequent recession of 1937-38 (Friedman and Schwartz 1963). In the 1930s and 40s along with the downgrading of monetary policy came an increased use of various types of controls and regulations such as margin requirements on stock purchases, selective credit controls on consumer durables and interest rate ceilings. Similar policies were adopted elsewhere. The return to traditional monetary policy in the 1950s returned open market operations to the position of predominance.

Intermediate Targets

Traditionally central banks altered interest rates as the mechanism to influence aggregate spending, prices and output .In the 1950s, the monetarists revived the quantity theory of money and posited the case for using money supply as the intermediate target (Friedman 1959, Brunner and Meltzer 1996). The case for money was based on evidence of a stable relationship between the growth of money supply on the one hand and nominal income and the price level on the other hand and evidence that, by focusing on interest rates the Fed and other central banks aggravated the business cycle, and then in part because of their inability to distinguish between real and nominal rates, generated the Great Inflation of the 1970s,(Brunner and Meltzer 1996).

By the 1970s most central banks had monetary aggregate targets. However the rise in inflation in the 1970s followed by disinflation as well as continuous financial innovation, in turn exacerbated by inflation uncertainty, made the demand for money function less predictable (Laidler 1980, Judd and Scadding 1982). This in turn led central banks to have difficulty in meeting their money growth targets. In addition the issue was raised over which monetary aggregate to target (Goodhart 1984). In the end by the late 1980s most countries abandoned monetary aggregates and returned to interest rates. But present policy is now based on pursuing an inflation target (implicit or explicit) with the policy rate set to allow inflation to hit the target, a policy which seems to be successful.

Theories of Monetary Policy

The development of the practice of monetary policy described above was embedded in major advances in monetary theory beginning in the first quarter of the nineteenth century. A major controversy in England, the Currency Banking School debate has shaped subsequent thinking on monetary policy ever since. That debate evolved out of the Bullionist debate during the Napoleonic wars over whether inflation in Britain was caused by monetary or real forces (Viner 1937). In the later debate the Currency School advocates emphasized the importance for the Bank of England to change its monetary liabilities in accordance with changes in its gold reserves—the Currency Principle ie they advocated a rule tying money supply to the balance of payments. The opposing Banking School emphasized the importance of disturbances in the domestic economy and the domestic financial system as the key variables the Bank should react to. They advocated that the bank directors use their discretion rather than being constrained by a rigid rule. The controversy still rages.

Later in the nineteenth century, the two principles became embedded in central banking lore (Meltzer 2003 Ch 2). The Federal Reserve and other central banks(including the Swiss National Bank) were founded on two pillars which evolved from this debate—the gold standard and the real bills doctrine.

The latter evolved from nineteenth century practice and the Banking School theory. The basic premise of real bills is that as long as commercial banks lend on the basis of self liquidating short term real bills they will be sound . Moreover as long as central banks only discount eligible real bills the economy will always have the correct amount of money and credit. Adherence to real bills sometimes clashed with the first pillar, gold adherence , for example when the economy was expanding and real bills dictated ease while the balance of payments was deteriorating which dictated tightening. This conflict erupted in the US on a number of occasions in the 1920s (Friedman and Schwartz 1963).

Adherence to the two pillars led to disaster in the 1930s. The Fed made a serious policy error by following real bills. A corollary of that theory urged the Fed to defuse the stock market boom because it was believed that speculation would lead to inflation which would ultimately lead to deflation (Meltzer 2003). The Fed's tight policy according to Friedman and Schwartz, Meltzer and others , triggered a recession in 1929 and then its inability to stem the banking panics that followed in the early 30s led to the Great Depression. The depression was spread globally by the fixed exchange rate gold standard. In addition, the gold standard served as ' golden fetters" for most countries because lacking the credibility they had pre 1914, they could not use monetary policy to allay banking panics or stimulate the economy lest it trigger a speculative attack (Eichengreen 1992).

The Great Depression spawned the Keynesian view that monetary policy was impotent. This led to the dominance of fiscal policy over monetary policy for the next two decades. The return to traditional monetary policy in the 1950s was influenced by Keynesian monetary theory. According to this approach monetary policy should influence short term rates and then by a substitution process across the financial portfolio this would affect the real rate of return on capital. This money market approach dominated policy until the 1960s.

The monetarists criticized the Fed for failing to stabilize the business cycle, for still adhering to vestiges of real bills (eg Free Reserves, Calomiris and Wheelock 1998), and for its belief in a stable Phillips curve-- that unemployment could be permanently be reduced at the expense of inflation . This they argued led to an acceleration of inflation as market agents expectations adjusted to the higher inflation rate. This produced the Great Inflation in the 1970s. As mentioned above the subsequent adoption of monetary aggregate targeting was short lived in the face of unpredictable shifts in velocity.

The current approach to monetary policy learned the basic lesson from the monetarists of the primacy of price stability. It also learned about the distinction between nominal and real interest rates (Fisher 1922).Moreover it has adopted a principle from the earlier gold standard literature, Wicksell's (1898) distinction between the natural rate of interest and the bank rate (Woodford 2003). In Wicksell's theory central banks should gear their lending rate to the natural rate (real rate of return on capital). If it keeps bank rate too low , inflation will ensue which under the gold standard will lead to gold outflows and upward market pressure on the bank rate. Today's central banks, dedicated to low inflation, can be viewed as following the Taylor rule according to which they set the nominal policy interest rate relative to the natural interest rate as a function of the deviation of inflation forecasts from their targets and real output from its potential (Taylor 1999).

Rules versus Discretion

A key theme in the monetary policy debate is over rules versus discretion. The question that followed the Currency Banking School debate was whether monetary policy should be entrusted to the hands of well meaning authorities with limited knowledge or to a rule which can not be designed to deal with unknown shocks.(Simons 1936, Friedman 1960). A more recent approach focuses on the role of time inconsistency. According to this approach a rule is a credible commitment mechanism which ties the hands of policy makers and prevents them from following time inconsistent policies-policies which take the past policy commitments as given and react to the present circumstances by changing policy (Kydland and Prescott 1977, Barro and Gordon 1982). In this vein, today's central bankers place great emphasis on accountability and transparency to support the credibility of their commitments to maintain interest rates geared towards low inflation (Svensson 1999).

Conclusion

Monetary policy has evolved since the early nineteenth century although it had precedents in earlier centuries. It played a relatively minor role before 1914 although many of its tools and principles were developed then. The role of monetary policy to stabilize prices and output came to fruition in the 1920s but for the Federal Reserve, basing it on a flawed model, the real bills doctrine, combined with adherence to a less than credible gold standard was a recipe for the disaster of the Great Contraction of 1929-1933.When monetary policy was restored in the 1950s in the U.S., it still was influenced by real bills (Calomiris and Wheelock 1998) which may have led to the policy mistakes which created the Great Inflation. The rest of the world was tied to the U.S. by the pegged exchange rates of Bretton Woods. More recently monetary policy in many countries has returned back to a key principle of the gold standard era— price stability based on a credible nominal anchor (Bordo and Schwartz 1999) and to Wicksell's distinction between real and nominal interest rates. Yet it is based on a fiat regime and the commitment of central banks to follow credible and predictable policies.

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