# Federal Reserve Credibility and Reputation in Historical Perspective

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## Introduction

The Federal Reserve and many other central banks have achieved remarkable credibility in the two decades preceding the financial crisis of 2007-2008. Central bank credibility has gone through a pendulum in the past century and a half. It was high under the gold standard before World War I and in the 1920s, declined dramatically in the middle of the twentieth century and then was restored in the 1980s. The recent good performance in many countries was enhanced by the adoption of inflation targeting. The recent financial crisis and the call for central bankers to focus more on financial stability and especially the tools of macro prudential regulation may pose significant challenges for central banks to preserve their credibility in the future.

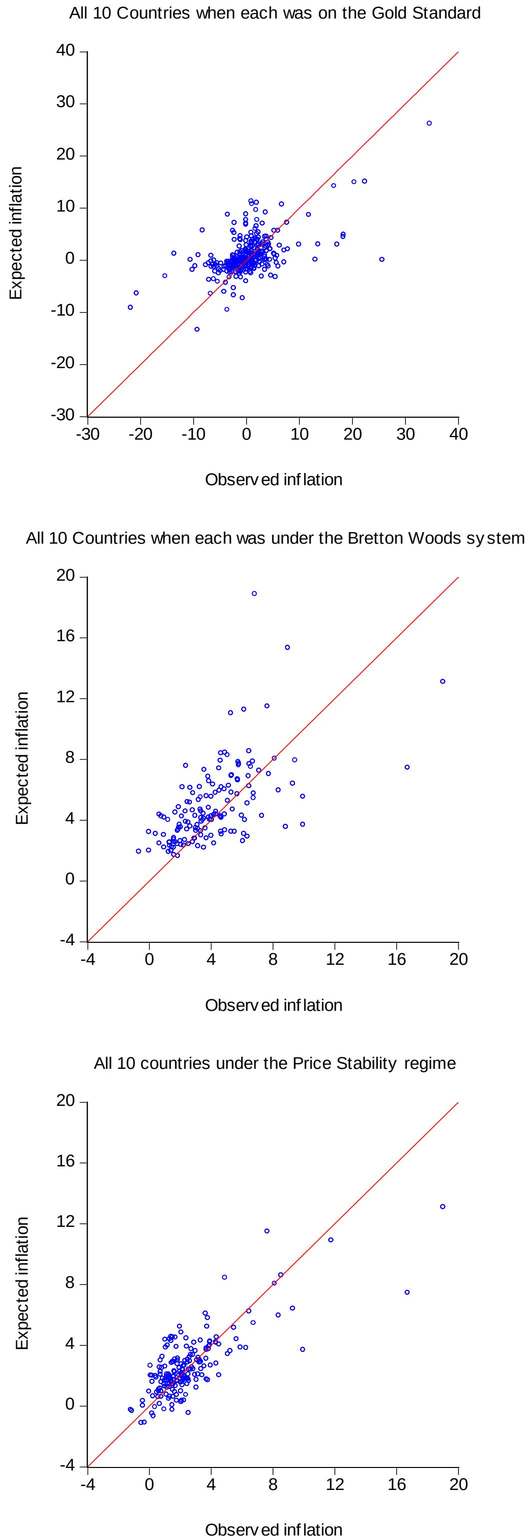
I define central bank credibility as a commitment to follow well-articulated and transparent rules and policy goals. Credibility is directly tied to performance "Credibility depends on the history of policy making and the behavior of the policy institution" (Brunner 1983). Following my work with Pierre Siklos (Bordo and Siklos 2014) I interpret credibility in terms of inflation performance. Credibility is a flow variable that changes as observed inflation is seen to deviate from a time-varying objective. Credibility also affects a central bank's reputation, which can be viewed as a stock variable. "It takes many good deeds to build a good reputation, and only one bad one to lose it" (Benjamin Franklin).

Credibility builds trust in institutions and helps weather crises. It helps markets and the public discern the actual policies being followed. The key determinants of credibility are the monetary regime in place and institutional factors such as the mandate of the central bank, its autonomy with respect of the government and the governance of the institution.

Bordo and Siklos (2014) argue that a central bank is deemed credible when it delivers, subject to a random error, the implied inflation rate objective conditional on the monetary regime in place. We derive the inflation objective using a Taylor Rule and we adjust it for the type of policy instrument used in different monetary regimes: the interest rate, a monetary aggregate and the exchange rate.
The history of central bank credibility is tied up with the history of policy regimes.

In Bordo and Siklos (2014) we compare credibility in three broadly defined regimes: a) the gold standard which includes the pre 1914 classical gold standard and the 1920s gold exchange standard; b) the Bretton Woods era which includes the years when the U.S. indirectly adhered to the pegged price of gold nominal anchor and the period after when the golden anchor was raised leading to the Great Inflation; c) the recent fiat money regime with the primacy of low inflation. As a measure of the evolution of credibility across regimes Figure 1 shows the pattern of expected and observed inflation for 10 countries for each regime. As can be seen the figure reveals a pendulum pattern. Credibility was high in the gold standard era, considerably less so in the Bretton Woods era and then back to the pattern of the gold standard under the current regime with primacy for low inflation.

**Figure 1. Expected and observed inflation for 10 countries**



## Credibility Through the Ages

The history of central bank credibility is tied up with the history of monetary policy regimes. The classical gold standard embodied a rule based on the commitment to maintain the official peg. It was a contingent rule where temporary suspension and the issue of fiat money were permitted in well understood emergencies (Bordo and Kydland 1995). Credible adherence to the gold standard allowed central banks leeway to conduct stabilization policies and lender of last resort actions (Bordo and MacDonald 2005). The history of the pre 1914 gold standard shows how the key countries: Great Britain, France and Germany, had credible regimes as well as others like Sweden and the United States. The peripheral countries of Southern Europe and Latin America were less successful.

World War I ended the classical gold standard and after the war it was restored as the gold exchange standard with great difficulty as the gold exchange standard in the mid 1920s. Its success depended on the reputations of Benjamin Strong of the Federal Reserve, Montagu Norman of the Bank of England, Emile Moreau of the Bank of France and Hjalmar Schacht of the Reichsbank. The gold exchange standard was short lived, ending with the Great Depression.

The Great Depression in many countries was blamed on central banks who lost their independence and became appendages of the fiscal authorities. Central banks regained their independence beginning with the Federal Reserve in 1951. Central bankers in the 1950s and early 1960s emphasized price stability but by the mid 1960s,with the principal exception of the Bundesbank and the Swiss National Bank which maintained "stability culture," followed Keynesian policies to maintain full employment at the expense of higher inflation. The subsequent Great Inflation destroyed any vestiges of credibility as well as the reputations of central bankers such as Arthur Burns (Bordo and Orphanides 2013).

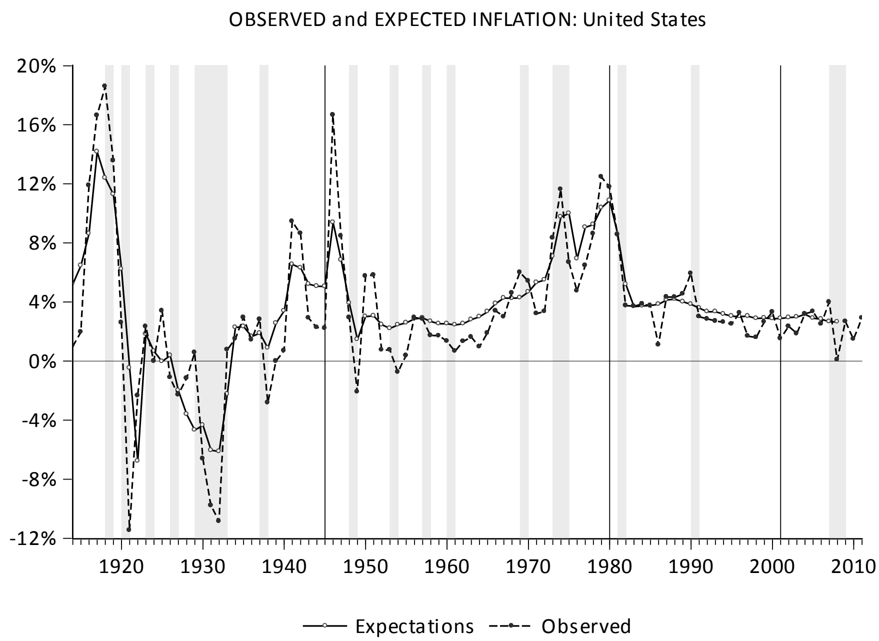
The Volcker shock in 1979 broke the back of inflation and inflation expectations and by the mid 1980s restored the Fed's reputation. Similar policies were followed in other advanced countries so that by the mid 1980s the Great Moderation restored price stability in the advanced countries along with the reputations of central bankers. In most countries credibility had to be earned at an economic price over time. Indeed the lower the credibility of policies, the more adverse the economic costs are (Fellner 1976, Haberler 1980). The commitment to rules focused on low inflation helped to restore central bank credibility (Levin and Taylor 2013). What helped these central banks to succeed was that new policies were built on the reputations of the institutions. Thus the pendulum has swung towards greater central bank credibility in recent decades and in many ways the world has gone back to the future.

The financial crisis of 2007-2008 led to massive discretionary intervention in financial markets by central banks around the world. Many of the actions mixed monetary with fiscal policy and appeared to violate central bank independence. The changes in the legislative and regulatory landscape that followed have expanded the role of central banks. Time will tell if their credibility to maintain low inflation will survive.

**The Evolution of Credibility in the United States**

Figure 2 which supplements the accompanying narrative shows observed and expected inflation for the U.S. The Federal Reserve was established in 1913 to act as a lender of last resort and to preserve the gold standard. After World War I, in which the Fed, like all other central banks, acted as an engine of inflation, followed a tight monetary policy to restore price stability. This led to a serious but short –lived recession from 1920-21. The period 1921 to 1929 has long been viewed as one of the best periods in the Fed’s history. It maintained price stability, avoided banking panics, attenuated two mild recessions and provided a background for rapid economic growth. The 1920s can be regarded as a period of high Federal Reserve credibility (Friedman and Schwartz 1963).

**Figure 2. Inflation and Expected Inflation in the U.S. Since the Fed's Creation**




NOTE: Vertical lines and shaded areas are NBER recession dates. See Bordo and Siklos (2014) for details about the estimation of expectations.

The Great Contraction of 1929-33 can be attributed to several failures of Federal Reserve policy. The most important was its failure to act as a lender of last resort and prevent four banking panics from October 1930 to March 1933. This policy failure contributed greatly to an unprecedented collapse in money supply, real output and prices. The massive (over 30%) decline in prices led to a major loss of credibility.

The Federal Reserve System was reorganized in 1933 and 1935 and the Board of Governors was given enlarged powers. However during the 1930s the Fed did not play a very active role in monetary policy which had been taken over by the Treasury. From the 1930s onwards the Fed began following a low interest rate policy to accommodate the Treasury's fiscal policies (Meltzer 2003). During World War II the Fed again became an engine of inflation although prices did not rise as much as in World War I because of extensive price controls. The interest rate pegs were kept after World War II and in the 1940s inflation became a problem leading the Fed to campaign to regain its independence to raise policy rates. This was achieved after a considerable struggle with the Treasury and the

Administration in the Federal Reserve Treasury Accord of 1951. The Fed tightened policy in the early 1950s and restored price stability. Under Chairman Martin the Fed followed a credible policy of low inflation and the economy performed well in the 1950s and early 1960s.

The era of credible low inflation ended after 1965 when, under pressure from the Johnson administration the Fed began accommodating expansionary fiscal policies to support the Vietnam War and the Great Society. This led to the beginning of the Great Inflation (1965 to 1982). The Fed also began following Keynesian doctrine (the Phillips Curve tradeoff) and made achieving full employment (at the expense of inflation) its paramount policy goal. As inflation and inflationary pressures mounted in the 1970s, several attempts by the Burns led FOMC to reduce inflation faltered when it led to recession and rising unemployment, leading to a ratcheting up in inflation and inflation expectations (Bordo and Orphanides 2013). By the late 1970s the Fed had lost considerable credibility for low inflation. This culminated in a run on the dollar in 1978.

In 1979 President Carter appointed Paul Volcker as Chairman of the Federal Reserve Board with a mandate to end inflation. Volcker's tight money policy triggered a sharp recession in 1979-1980. It was aggravated by the Carter Administration imposing controls on credit card expenditures. In reaction the Fed loosened policy in late 1980. Immediately inflation and inflationary expectations rebounded. Several months later, with the support of the newly elected President Reagan, Volcker reapplied the monetary brakes triggering a second recession and this time it did not stop tightening, despite the unemployment rate rising well above 10%, until inflation and inflation expectations abated in 1982. The Fed's credibility suffered after the first recession and was only regained after the second (more severe) Fed induced downturn (Bordo, Erceg, Levin and Michaels 2007).

The Fed reestablished its credibility for low inflation by the mid 1980s seen in our measure of inflation expectations in Figure 2. The 20 year episode of good performance is referred to as the Great Moderation which ended with the Financial Crisis of 2007-2008.

**Empirical Evidence on the Pendulum of Central Bank Credibility**

Bordo and Siklos (2014) provide econometric and other empirical evidence for the pendulum of central bank credibility and for the determinants of credibility. We find that the mean and standard deviation of the gap between observed inflation and the inflation objective measured by a Taylor Rule is lowest in the recent period, followed by the gold standard. The Bretton Woods era had the worst performance. Thus the two regimes that had credible nominal anchors had the best inflation outcome.

Tobit regressions show that in the majority of countries in our 10 country sample both adhering to the gold standard and to the recent price stability regime increases the probability of being credible whereas the Bretton Woods regime lowers it. Panel regressions showed that adhering to the gold standard, stable money growth and central bank independence raised credibility.

We also found that countries that had formal inflation targets (Canada, the UK, Norway and Sweden) have been more successful at anchoring inflation expectations in the recent period than in other countries where low inflation is the declared aim.

The main advantage of inflation targeting for enhancing credibility is that it is a superior means of anchoring inflation expectations. It does this by clearly stating the target and communicating its intentions on how to maintain it. Walsh (2009) and others, explain that inflation targeting has greater transparency than other monetary policy strategies and is more accountable to the public.

In Bordo and Siklos (2014) we show, using the Dincer Eichengreen (2007) index that increased transparency is associated with both improved inflation performance and credibility. This is especially the case for emerging countries. Moreover we find that in general, countries adopting inflation targeting have greater credibility and transparency than those without it and they have succeeded in anchoring inflation at lower levels.

**Policy Lessons**

The historical/empirical approach I have taken reveals a pendulum in central bank credibility from the nineteenth century to the present. The recent low inflation regime has been characterized by the same level of credibility as under the gold standard but it is based on a more efficient fiat money system. The low inflation experience has been enhanced by inflation targeting.

The financial crisis of 2007-2008 forced central banks to focus on lender of last resort actions and other financial stability preserving policies. These actions involved working closely with the fiscal authorities which has compromised their independence. Since the crisis they have been engaged in unorthodox quantitative easing policies which depart greatly from the traditional "bills only" approach. There is evidence that through the crisis period the nominal anchor has held and inflation has been low and stable. The question arises however—will central banks continue to have credibility for low inflation? The recent financial crisis led to the call for central banks to elevate the goal of financial stability to the same level as macro/price stability. This is based on the belief that the credit cycle will create future imbalances and future asset price booms and busts and financial crises. Hence central banks should head off these imbalances by preemptive monetary tightening. However, such policies (assuming that they work and do not backfire as occurred in the U.S. in 1929 and Japan 1990) can be problematic if they impinge on central banks main mandate for low and credible inflation. This was a problem recently in Sweden and Norway where concern over rising house prices led the Riksbank and Norges Bank to keep their policy rates higher than dictated by the usual macro indicators. This caused inflation to fall increasingly below the target and lowered expected inflation threatening the nominal anchor.

In the U.S, the Fed has kept its policy rate unusually low in part because it doesn't foresee inflation on the horizon. This policy fosters asset price inflation and creates many distortions in financial markets. In addition there is the potential loss of credibility if it were forced to raise rates earlier than planned. There is a chance that the Fed is heading to make the one big mistake that will ruin its reputation as in the Ben Franklin quote earlier in the paper.

Several key issues are involved: (1) the use of the policy rate for multiple objectives is definitely a threat to central bank credibility because it gives conflicting signals to the public. An historical example of this problem was the use of sterilized exchange market intervention by the Federal Reserve from 1962 to 1995. Holding constant the question about its effectiveness, the FOMC in the

early 1990s decided to greatly down play its use because it threatened their new emphasis on credibility for low inflation (Bordo, Humpage and Schwartz 2014).
(2) The use of other macro prudential tools such as leverage ratios, loan to value ratios, liquidity ratios, margin requirements and capital ratios to stabilize the credit cycle is also problematic. The problem is that by adding on extra tools to the central bank's tool kit it complicates the central bank's mission. Again turning to history, in the 1950s and 1960s many central banks, including the Fed, used such instruments to influence the level and growth of credit and money.

These policies ultimately failed. Central banks, including the Fed, also influenced the allocation of credit to different sectors of the economy. This use of credit policy where the central bank picks winners and losers, referred to as credit policy—a form of fiscal policy distorts resource allocation and compromises central bank independence (Goodfriend 2012). More important, it conflicts with the central bank's main mandate which is to preserve price stability.

Thus, central banks should be cautious in joining the macro prudential bandwagon. The evidence on the existence of credit cycles is not overwhelming. There are few serious macro models to back up the widespread use of these policies. Also it is not clear why central banks should be conducting such policies in the first place. Why not delegate them to other agencies and the Treasury? Protecting the payments system and deposit taking institutions via a lender of last resort following Bagehot Rule like behavior may be enough (Bordo 2014).

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