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The Elusive Promise of Independent Central Banking

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Abstract

Independent central banking is reviewed as it emerged first under the gold standard and later with an inconvertible paper money. Monetary and credit policy are compared and contrasted as practiced by the 19th century Bank of England and the Federal Reserve. The lesson is that wide operational and financial independence given to monetary and credit policy in the public interest subjects the central bank to incentives detrimental for macroeconomic and financial stability. An independent central bank needs the double discipline of a priority for price stability and bounds on expansive credit initiatives to secure its promise for stabilization policy.

Keywords: Bank of England; central bank independence; credit turmoil of 2007-8; Federal Reserve; Great Inflation; lender of last resort; monetary policy
JEL classification: E3, E4, E5, E6

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Established centuries ago largely to facilitate government finance, central banks undertook independent monetary and credit responsibilities only gradually. The 19th century Bank of England undertook last resort lending during banking panics but otherwise followed the rules of the classical gold standard. Established by the Federal Reserve Act of 1913, the Fed employed its monetary and credit policy powers to help finance World War I and thereafter to manage the money supply somewhat independently of gold to smooth short-term interest rates against liquidity disturbances. The idea was that the Fed's independent policy powers would improve on the rules of the classical gold standard, rules that were seen as unduly restrictive.

The story is one in which wide operational and financial independence to pursue monetary and credit policy in the public interest proved detrimental for macroeconomic and financial stability.[1] From the beginning, the Fed's smoothing of interest rates weakened the link between gold flows and the monetary system, and set the stage for a highly unstable price level, including the deflation that precipitated the Great Depression in the 1930s. Later, in line with public and political pressures, the Fed's inclination to prioritize low unemployment over low inflation produced go-stop monetary policy in the Great Inflation of the 1960s and 1970s. The Volcker Fed asserted a priority for price stability in the early 1980s that eventually brought both inflation and unemployment down. The Fed learned that effective monetary policy independence needs the discipline of a credible commitment to low inflation.

Independent central bank credit policy has undergone a parallel evolution. The 19th century Bank of England followed Walter Bagehot's (1873) dictum to stabilize financial markets during a banking panic by lending freely at a high rate against good collateral. Bagehot's advice worked

[1] Economists have expressed a range of views on independent central banking. Friedman (1962a) is skeptical that an independent central bank can deliver low inflation consistently. Prescott (2006, p.209) argues that an independent central bank will sustain low inflation consistently today because it will be punished for excessive inflation. "Petition for Fed Independence" (2009) has nearly 200 signitures approving of virtually unconditional independent monetary and credit policy powers. McCallum (1995 and 1997) identifies various caveats. Cukierman (1992) assesses independence empirically. Hetzel (2001), Meltzer (2003 and 2009), and Stein (1969) tell of ebbs and flows of Federal Reserve independence in practice.

because the Bank of England operated as a private profit maximizing institution whose shareholders earned the profit and bore the losses; so the Bank had an incentive not to subsidize its last resort lending or expose itself to unwarranted risks.

Bagehot's Rule is widely referenced as the rationale for central bank lending today. Yet, Bagehot's Rule has not been followed by the Federal Reserve. Early on, and for decades thereafter, the Fed set its Discount Rate below market rates and subsidized lending to depositories by targeting borrowed reserves in order to obscure its routine management of short-term interest rates. Fed lending supported insolvent depositories in the 1970s and '80s. Congress in 1991 gave the Fed virtually unlimited power to lend beyond depositories in a crisis. Unbridled credit policy independence in conjunction with its financial independence drew the Fed into a massive expansion of credit in the 2007-8 crises, with the "implied promise of similar actions in times of future turmoil."[2] Just as the priority for price stability was needed to discipline independent monetary policy, tightly circumscribed boundaries are needed today to discipline independent credit policy.

The above points are developed in detail as follows. Section 1 reviews the evolution of independent monetary policy covering, in turn, the 19th century Bank of England under the classical gold standard, the Federal Reserve under the 20th century gold standard, and post-World War II go-stop monetary policy. Section 2 reviews the evolution of independent credit policy covering, in turn, last resort lending by the 19th century Bank of England, borrowed reserve targeting by the Federal Reserve, and emergency credit assistance by the Federal Reserve. Section 3 contrasts the fiscal finance and the monetary stability roles of central banking in the context of the rule of law and government responsibilities more generally. Section 4 explains how the double discipline of a priority for price stability and bounds on expansive credit policy can enable an independent central bank to steer clear of unauthorized fiscal finance and secure its promise for stabilization policy.

[2] Volcker (2008), page 2.

1) Independent Monetary Policy

Independent monetary policy had its origin in the 19th century with the occasional relaxation of classical gold standard rules so that the Bank of England could undertake so called "lender of last resort" responsibilities during banking crises. The Federal Reserve was established to pursue monetary policy independently within the gold standard. The two central banks pursued their independent monetary policy powers very differently as a result of their governance structures.

1.1 Independent Bank of England Monetary Policy and the Classical Gold Standard

Under the classical gold standard rules of the Bank Charter Act of 1844 the Bank of England was obliged to exchange its circulating bank notes and its deposit liabilities at 4.25 pounds per ounce of gold. Except for a fixed fiduciary note issue, the Bank was ordinarily required to hold a 100% gold reserve against its circulating bank notes.[3] There was little room for the Bank to engage in independent monetary policy. Short-term interest rates and other financial variables were linked relatively tightly to gold flows. When obliged to buy gold at the fixed pound price, the Bank would expand note issuance and market interest rates would fall; when the Bank was obliged to sell gold, the note issuance contracted and market interest rates rose.

Normally, the Bank of England's "Bank Rate," the rate at which it would lend against designated classes of securities, was kept fixed slightly above market rates.[4] Bank Rate could come into play in the event of a run on the banking system. Banks would sell assets in an effort to acquire bank notes to pay out depositors. In so doing, asset prices would be driven down and short-term interest rates driven up until they hit the Bank Rate ceiling. Walter Bagehot's famous prescription—

[3] Commercial bank balances held at the Bank of England became increasingly important during the 19th century. No gold reserves were required against such bankers' balances. Because the Bank was a profit maximizing entity, the interest opportunity cost of holding gold instead of securities limited the Bank's willingness to hold precautionary gold reserves.

[4] See Hawtrey (1938).

that the Bank of England should stand ready to lend freely at a high rate on good collateral—dictated that the Bank should accommodate the demand for bank notes fully at Bank Rate against any good collateral it was offered.[5] The U.K. Treasury suspended temporarily the gold reserve that it required the Bank of England to hold against its circulating bank notes during the panics of 1847, 1857 and 1866 to enable the Bank to supply the banking system temporarily with whatever currency was demanded at Bank Rate.

Bagehot's rule worked well for the 19th century Bank of England for three reasons. First, it was generally profitable for the Bank to hold less gold reserves against its bank notes than the government required, so the Bank would expand lending if gold reserve requirements were suspended. Second, the Bank would profit from lending at a high Bank Rate. Third, because Bank shareholders earned the profit and bore the risk of loss, the Bank had an incentive to lend against collateral of impeccable creditworthiness. So there was little ex ante distortion due to credit allocation and little ex post credit subsidy.

This raises the question: If the Bank of England had the incentive to follow Bagehot's Rule during banking panics, why then did Bagehot need to promote the rule for the Bank to follow? Perhaps the Bank needed Bagehot's encouraging public policy rationale to act as "lender of last resort" in order to deflect charges of profiteering.

Ironically, "lender of last resort" policy practiced by the Bank of England under Bagehot's Rule is best thought of not as "credit policy" at all but as "monetary policy." Lending at Bank Rate did not require for its effectiveness that the Bank take credit risk on its balance sheet. Last resort lending worked by satisfying temporarily the excess demand for bank notes against riskless securities.[6] Last resort lending served its purpose well because as monetary policy it could be disciplined effectively by the Bank's profit maximizing incentive and by the government's

[5] Bagehot (1873), reprinted 1927 edition, pp. 187-88.
[6] See Goodfriend and King (1988) pp. 15-17.

relaxation and re-imposition of gold reserve requirements during and following banking crises. The credibility of the Nation's commitment to defend the 4.25 pound per ounce price of gold, which was maintained throughout, guaranteed that private capital would be forthcoming to help defend the gold value of the pound against a speculative attack that might develop as the Bank followed Bagehot's Rule.

1.2 Independent Federal Reserve Monetary Policy under the Gold Standard

The Federal Reserve was founded just before the World War I in the belief that its interest rate policy would be guided by the rules of the classical gold standard. Initially, the Fed was required to hold a 35% gold reserve against bankers' balances and a 40% gold reserve against Federal Reserve notes, and to stand ready to convert its deposit and note liabilities into gold at 20.67 dollars per ounce. The Fed had a large cushion of gold reserves when the war ended in November 1918. Its gold reserves declined sharply after the gold export embargo was lifted in 1919 and gold flowed out of the country. To defend its minimum gold reserve requirements, the Fed raised short-term interest rates sharply from around 4 to 7 percent between October 1919 and June 1920 and kept rates high through March 1921. The resulting recession from January 1920 to July 1921 was sharp and deep. Unemployment rose from an average of 4 percent in 1920 to around 12 percent in 1921. The Fed's index of industrial production fell from 39 in 1920 to 30 in 1921 and returned to 39 in 1922. The wholesale price index fell 37 percent during the recession and stayed there during the recovery.[7]

The Fed's interest rate actions geared to defending the gold standard partially reversed the rise in the price level that occurred during the war. However, there was little public support in the United States for the Fed's deflationary, high interest rate policy in the early 1920s, and the Fed was

[7] The descriptive data comes from Meltzer (2003), pp. 109-19.

traumatized by its first use of interest rate policy. Congress discussed legislation limiting the Fed's power to raise interest rates beyond a ceiling rate without congressional approval.[8] The Fed did not raise interest rates to this level again until the 1960s. Even then, the Fed raised rates reluctantly, creating go-stop inflationary problems discussed below.

To loosen the link between short-term interest rates and gold flows, the Fed shortly thereafter began to build up a stock of "free gold," gold reserves in excess of legally required ratios. Targeting gold reserves far above required minimums allowed the Fed to accommodate fluctuations in gold flows without immediately adjusting short-term interest rates.[9] By stockpiling gold, the Fed essentially divorced monetary policy from the constraints of the gold standard.[10] The Fed let its gold stockpile run up and down to accommodate fluctuations in demand at the fixed dollar price, sterilizing the monetary effects of gold flows with securities operations.

In so doing, the Fed pursued monetary policy with considerably more flexibility than had the Bank of England.[11] The Fed radically altered the character of short-term interest rate movements, eliminating sharp fluctuations and introducing a high degree of persistence into short rates unknown previously.[12] However, by weakening the operational link between gold flows and short-term interest rates the Fed inadvertently set the stage for a highly unstable price level, including the deflation of the 1930s and the inflation after World War II.

The Fed was willing to stockpile gold, and forgo interest income from securities it might have held otherwise, because it was not a profit maximizing institution. The Fed was set up and run "in the public interest." The Fed was given "operational independence" over its balance sheet, and "financial independence" to fund itself from its net interest income, ostensibly to free its money

[8] Meltzer (2003), page 127.
[9] Board of Governors of the Federal Reserve System (1976), Table 93, pp. 346-50.
[10] See Friedman (1961) and Goodfriend (1988).
[11] See Hetzel (1985).
[12] See Mankiw et al. (1987) and Goodfriend (1991), pp. 22-3.

creating power from potentially inflationary budgetary politics. The U.S. Treasury was the recipient of net income after expenses arising from the Fed's monopoly on bank reserves and currency.

Thus, the Fed had the operational independence to acquire free gold instead of interest earning securities and the financial independence to deprive the government of revenue by holding free gold instead of securities. One wonders whether Congress would have been willing to authorize explicitly the "spending" of net interest income from monetary policy operations to stockpile gold far above legally required minimums.

At any rate, the Fed's pursuit of independent monetary policy stands in contrast to that pursued by of the Bank of England. Instead of coexisting with the rules of the gold standard, the Fed's monetary independence proved destructive of the discipline of the gold standard and eventually supplanted the gold standard with an inconvertible paper money.

1.3 Go-Stop Monetary Policy

When the dollar price of gold was raised to $35 an ounce in 1934, the price was well above the world market price. Gold flowed into the Fed tripling its gold stock in six years until the Fed held about half of the world's gold. By the early 1960s the Fed's inflationary monetary policy had more than doubled the price level, and the Fed was forced to sell gold to maintain the $35 an ounce price.[13] When inflationary money creation eroded the Fed's free gold in the mid-1960s Congress eliminated the minimum required gold reserve. The private dollar price of gold was allowed to float freely in 1968 and the gold standard finally broke down definitively in 1973.

The flexibility of an inconvertible currency created increasingly destabilizing inflationary go-stop monetary policy. Acting in the public interest, the Fed was inclined to be responsive to the shifting balance of the public's concerns between unemployment and inflation. The Fed would

[13] Friedman (1962b), pp. 58-60.

pursue monetary stimulus to drive the unemployment rate down as long as the public was willing to risk higher inflation in order to stimulate additional economic activity. Only when economic activity was strong and inflation moved above the prevailing trend did inflation become the public's predominant concern.

In keeping with the public interest, the Fed justified its periodic inflation-fighting actions against an implicit objective for low unemployment. By the time the public became sufficiently concerned for the Fed to act against inflation, pricing decisions had begun to embody higher inflation expectations. Restraint on inflation then required an aggressive increase in short-term interest rates to create a recession in order to bring inflation down. In any go-stop cycle there was a relatively narrow window of broad public support for the Fed to tighten monetary policy against inflation. The window opened when rising inflation was widely judged to be a problem and closed after tighter monetary policy caused unemployment to rise. The Fed would settle for a higher trend rate of inflation with each policy cycle.

Deliberately expansionary monetary policy in the "go" phase of the policy cycles came to be anticipated. The Fed became evermore expansive in its pursuit of low unemployment, causing trend inflation and inflation expectations to move ever-higher which, in turn, necessitated evermore contractionary recessions in the "stop" phase of the policy cycle. Monetary policy became a source of instability and wound up worsening both inflation and unemployment.[14] Eventually, the Fed recognized that it would be better to reverse its priorities—to justify its actions to stimulate employment against a commitment to low inflation. The reversal of priorities during the Volcker

[14] Friedman (1964) discusses go-stop policy. Taylor (1979) documents the inefficient variability of inflation and unemployment during the Great Inflation period relative to the estimated efficient policy frontier. See also Romer and Romer (1989).

disinflation in the early 1980s enabled monetary policy subsequently to reduce both inflation and unemployment.[15]

The key to the Fed's success is its preemptive interest rate policy actions against inflation, the first in 1983-84 and the second in 1994. Both circumstances were marked by a significant inflation scare in long-term bond rates. The 30-year Treasury bond rate rose by 3 percentage points from the summer of 1983 to the summer of 1984. The bond rate rose by 2 percentage points from the fall of 1993 to the fall of 1994. On both occasions the Fed raised short-term interest rates by 3 percentage points to contain the inflation scare, even though actual inflation had not yet begun to rise. And on both occasions the Fed's preemptive interest rate policy actions prevented a subsequent rise in inflation and reversed the inflation scare in bond rates without an increase in unemployment. These preemptive interest rate actions against inflation set the stage for two of the longest business expansions in U.S. history.

A milestone was reached in January 2012 when the Bernanke Fed formally adopted an explicit 2% inflation target. In so doing, the Fed recognized explicitly that independent monetary policy needs the discipline of a priority for price stability to offset the tendency to drift otherwise into destabilizing inflationary go-stop policy cycles.[16]

2) Independent Credit Policy

Credit policy involves lending to private institutions (or acquiring non-Treasury securities) with freshly created bank reserves or the proceeds from the sale of gold or Treasury securities. Operating in the public interest with financial independence, the Federal Reserve has pursued independent credit policy very differently than did the private profit maximizing 19th century Bank of England.

[15] The Volcker disinflation is discussed in detail in Goodfriend and King (2005).
[16] See Goodfriend (2005).

2.1 Bank of England Credit Policy

The 19th century Bank of England engaged predominantly in two types of credit initiatives. It purchased bills of exchange (bankers' acceptances) outright at a discount. And it purchased securities which the counterparty agreed to repurchase at a given price and date in the future. "Advances," as the latter were known, were collateralized by the security in the repurchase agreement. Advances were made on bills of exchange, U.K. Treasury securities known as Consols, or other eligible securities.[17]

Flandreau and Ugolini (2010) argue that the rise of the fully secured business of international trade finance was instrumental in the Bank of England's willingness to provide last resort lending during banking panics. For instance, they document that foreign bills of exchange were the preponderant security purchased outright or advanced under repurchase agreements by the Bank of England during May 1866 when the Overend-Gurney panic reached its peak. Flandreau and Ugolini point out:

> "…it may not take a huge credit analysis talent to understand that a shipment secured by the commodity, traveling in a British ship, boarded in a British entrepot, guaranteed by the importer, his banker, and the drawee in London has little scope for going bad. The boom in global trade in the 1850s and 1860s and the supremacy British banks achieved in financing it, meant that there was now a large supply of wonderful collateral on which the Bank of England could lend freely."[18]

In other words, the abundance of bills of exchange provided the Bank of England with collateral, virtually free of credit risk against which the Bank could lend currency during a banking panic. In fact, Flandreau and Ugolini point out that even though two of the largest recipients of Bank of England advances in 1866 were banks that collapsed during the crisis, the Bank was fully protected against losses in each case.[19]

[17] The description above is from Flandreau and Ugolini (2010), page 7.
[18] Flandreau and Ugolini (2010), page 21.
[19] Ibid., page 21.

Thus, to reiterate the point emphasized in Section 1.1, independent credit policy practiced by the 19th century Bank of England was more akin to monetary policy than credit policy. Last resort lending did not involve taking on credit risk. Nor did it involve a subsidy since it was undertaken at a high Bank Rate. Moreover, last resort lending at Bank Rate put a ceiling on short term interest by accommodating the demand for currency. Furthermore, since currency was provided at Bank Rate via the purchase of securities, either outright or under a repurchase agreement, last resort lending actually involved open market purchases of riskless private securities rather than lending to particular institutions.

2.2 Federal Reserve Credit Policy

The Federal Reserve has practiced independent credit policy in two distinct ways. First, the Fed has utilized "borrowed reserve targeting" to manage short term interest rates. Second, the Fed has provided "emergency credit assistance" to depositories and other entities in financial distress.

2.2.1 Borrowed Reserve Targeting

In contrast to the 19th century Bank of England, which normally kept Bank Rate above market rates, the Fed kept its equivalent Discount Rate below market rates. The Fed helped to finance World War I by allowing depositories to borrow heavily at its discount window against Treasury securities.[20] In so doing the Fed's Discount Rate put a ceiling on riskless short term rates. Other money market rates floated above the discount rate at spreads commensurate with liquidity and credit risk. The public understood that the discount rate anchored money market rates.

[20] Garbade (2012).

After the traumatic experience raising interest rates in the early 1920s discussed previously, the Fed moved to manage short-term interest rates less visibly by targeting "borrowed reserves." To do so, in 1923 the Fed put in place administrative prohibitions against continuous borrowing by individual banks. Subsequently, even riskless short-term money market rates floated above the discount rate. The Fed managed the spread between riskless money market rates and the discount rate by varying the quantity of aggregate bank reserves that the Fed forced the banking system to borrow at the discount window. Higher (lower) forced borrowing drove up (down) market rates relative to the discount rate.

Borrowed reserve targeting enabled the Fed to create the illusion that money market rates were determined by market forces. To raise rates the Fed first quietly sold securities from its portfolio to drain reserves from the banking system. Market rates would float higher relative to the fixed discount rate as the banking system was forced to borrow more reserves from the Fed. Then, the Fed reversed its open market sale to normalize the spread as it raised the Discount Rate, and the Discount Rate would follow market rates higher.[21]

Borrowed reserve targeting was employed again to implement interest rate policy quietly and invisibly in the 1950s and '60s, and finally in the 1980s, to obscure the Fed's unpopular interest rate actions against inflation. The Fed did not make its interest rate policy actions fully transparent until February 1994, when it began to announce its intended federal funds rate target immediately after each FOMC meeting. In 2003 the Fed began to set the Discount Rate for routine borrowing at a penalty rate above the federal funds rate, in part to eliminate the subsidy that borrowing banks could obtain, and also because borrowed reserve targeting was no longer needed to hide interest rate policy actions.

[21] See Goodfriend (1991), pp. 19-22 for a more extensive discussion.

Selling securities paying market interest to force the banking system to borrow reserves at the lower Discount Rate cost the Fed interest income. The financially independent Fed simply passed through the interest cost in reduced revenue to the fiscal authorities. The lost income was relatively minor, since borrowed reserve targeting was implemented with relatively little forced borrowing. Nevertheless, one wonders whether Congress would have been willing to authorize explicitly the "spending" of interest income by the Fed in order to hide the Fed's interest rate policy actions.

2.2.2 Federal Reserve Emergency Credit Assistance

The constraints on the Federal Reserve's independent emergency credit policy powers were loosened gradually over time.[22] The original Federal Reserve Act of 1913 authorized the Fed to extend credit only to member banks of the Federal Reserve System. Lending to other entities was not permitted at all until 1932, when Section 13 (3) of the Act gave the Fed the authority to lend to "individuals, partnerships, and corporations" in "unusual and exigent circumstances" as determined by the vote of at least five members of the Board of Governors. However, Fed credit extended to nonbanks in the 1930s was relatively insignificant because collateral requirements in 13 (3) were highly restrictive even after being relaxed by a 1935 amendment, and because entities such as the Reconstruction Finance Corporation were established with funding authorized explicitly by Congress to allocate credit widely to nonbank entities.[23] The idea seems to have been that expansive credit policies should not be carried out by an independent central bank because credit allocation is inherently political and has the potential to degrade the central bank's independence.

The Fed made few loans under 13 (3) after the 1935 amendment took effect in 1936 until long after 13 (3) was amended as a result of the Federal Deposit Insurance Corporation

[22] The discussion below draws in part from Clouse (1994) and Todd (1993), see also Hackley (1973).
[23] See, for instance, Jones and Angly (1951).

Improvement Act (FDICIA) of 1991. Financial markets were relatively stable until the 1980s. And the Monetary Control Act of 1980 gave all depositories access to the Fed discount window, whether or not they were members of the Federal Reserve System.

Following the 1987 stock market crash policymakers began to discuss the potential desirability of relaxing restrictions on Fed lending to nonbank financial firms. Section 473 of FDICIA amended the Federal Reserve Act so that the only collateral test remaining under 13 (3) was "satisfactory security," the same test that applied to borrowings of depository institutions.[24] Alan Greenspan has written that in 1991

> "…at the urging of the Federal Reserve Board of Governors, Section 13 (3) of the Federal Reserve Act was considered, and amended by Congress. The section grant[ed] virtually unlimited authority to the Board to lend in "unusual and exigent circumstances.'"[25]

In effect, the 1991 amendment to 13 (3) gave independent Fed credit policy the same wide discretion that its independent monetary policy powers had attained with the demise of the gold standard.

The Fed and the 19th century Bank of England pursued their independent credit policy powers very differently as a result of their governance structures. When Bagehot urged the Bank of England to lend in a crisis against good collateral at a penalty rate, he needn't say more. The problem was to encourage the Bank to lend freely in a banking crisis once the U.K. Treasury suspended the gold reserve requirement against notes.[26] Bagehot could be sure that the Bank would lend primarily against foreign bills of exchange so as not to take on credit risk. Likewise, Bagehot could be sure that the Bank would lend at a profitable penalty rate, since the Bank's own funds were at stake and the Bank was a profit maximizing institution. There was little chance that the Bank of England would subsidize its lending and distort credit flows. There was no need, since it was the

[24] Todd (1993), p. 20.
[25] Greenspan (2010), p. 17.
[26] See, again, Bagehot (1873).

monetary features of last resort lending (the elastic provision of currency) that mattered for stabilizing market interest at the Bank Rate ceiling.

The problem with regard to Fed credit policy today is just the opposite—it is to limit the Fed's lending reach. The financially independent Fed is inclined to lend rather than risk a panic by not lending, even if forced to take relatively poor collateral at inordinately low interest, because its own funds are not at stake. The fiscal authorities are content for the Fed to take responsibility for denying or extending credit to troubled financial markets because the Fed's inclination to lend usually matches their own, notwithstanding the potential cost to taxpayers. And the fiscal authorities have the option to criticize Fed actions after the fact if that proves politically useful. Moreover, the Fed puts taxpayers at risk even if it protects itself by taking good collateral. If the entity to which the Fed lends fails with a Fed loan outstanding, the Fed takes collateral at the expense of taxpayers exposed to losses from backstopping the deposit insurance fund, or from other financial guarantees that the government may have put in place. The set-up facilitates lending laxity and moral hazard.

For these reasons, the Fed exhibited a tendency to expand its lending to depositories beyond short term liquidity assistance long before FDICIA authorized lending to non-banks in 1991. For instance, in 1970 depositories were encouraged to borrow from the Fed to support the commercial paper market in the wake of the Penn Central bankruptcy. In 1974, Fed lending supported the insolvent Franklin National Bank until it could be purchased by a group of investors. Similarly, Fed lending from May 1984 to February 1985 supported the undeclared insolvency of Continental Illinois Bank until it was resolved.[27] Schwartz (1992, p. 68) observed:

> "…By the 1980s hundreds of banks rated by regulators as having a high probability of failure in the near term and which ultimately failed were receiving extended accommodation at the discount window…[t]he change in discount window practices, by delaying closure of failed institutions, increased the losses the FDIC and ultimately taxpayers bore." [28]

[27] Schwartz (1992), pp. 62-4.
[28] The Fed's lending to insolvent banks in the 1980s is discussed at length in Clouse (1994), pp. 972-77 and in Schwartz (1992).

FDICIA contained provisions intended to limit longer-term Fed credit policy support of troubled depositories. Ultimately, however, the power that FDICIA gave the Fed to expand its lending reach beyond depositories more than offset the restrictive provisions of the Act.

Since the 1980s, regulatory permissiveness and technological innovation in the United States led to a huge expansion of securitization and structured finance of longer-term illiquid cash flows for funding in money markets via shadow banking.[29] By 2007, money markets accounted for a share of financial intermediation that rivaled depository intermediation in scale. Importantly, the potential expansion of Fed lending to support liquidity in money markets was not accompanied by the supervision and regulation of money markets as it was for depositories with access to Fed credit. Worse, the fact that money markets could expect support from expansive Fed credit policy in a crisis directly, or indirectly via lending to depositories, probably encouraged the vast expansion of money market finance.

In the 2007-8 credit turmoil the Fed was put in an untenable position given its wide powers to lend—disappoint expectations of accommodation and risk a systemic financial collapse, or lend expansively and feed expectations of even more expansive lending. Analogously to inflationary monetary policy, fully independent Fed credit policy exhibited a tendency evident in the credit turmoil to expand its lending reach in scale, maturity, and eligible collateral.[30]

The problem confronting independent Fed credit policy is this: Unbridled credit policy has the capacity to create ever-greater boom and bust credit cycles while simultaneously undermining the Fed's independent legitimacy within government. The nature of the problem is explored and a solution is proposed below.

[29] Goodfriend (2011b).
[30] See Goodfriend and Lacker (1999), pp. 14-15.

3) Government, Rule of Law, and Independent Central Banking

Among the government's primary responsibilities are the provision of external and internal security, the enforcement of contracts, and the resolution of disputes. The government also must have an agreed political mechanism for assessing taxes on the public and determining the purposes to which public funds are allocated.

If government is to be effective, it must be regarded as legitimate—conforming to recognized principles or accepted rules and standards. Public confidence in government is indispensable. Political, regulatory, or judicial processes must follow laws and procedures openly agreed, readily understandable, and thoroughly and fairly enforced. Clarity and simplicity about the rule of law are essential to promote equal opportunity. Complexity and opacity give an advantage to insiders, undermine legitimacy, and erode voluntary cooperation essential for effective government.

Independent central banks have veered between two different public policy purposes. The modern "monetary stability" purpose values independent central banks for their power to guarantee low inflation and financial stability in order to promote sustainable employment and economic growth. Price stability is valued, in addition, for providing financial security, an inflation-free environment within which ordinary citizens can save reliably for retirement.

The older "fiscal finance" purpose values independent central banks for the occasional emergency financing of government spending. Central banks were chartered originally with the profitable right to issue bank notes within the gold standard in exchange for providing loans to the government. Likewise, the Fed employed its power to create currency and bank reserves to help finance the U.S. government at low interest during both world wars.

Since the credit turmoil of 2007-8, independent central banks have employed expansive credit policy initiatives for fiscal finance purposes beyond boundaries ordinarily regarded as legitimate by the legislature and the public. Whether justified by the need to act in a timely manner,

or by the need to act in lieu of paralyzed fiscal authorities, independent credit policy initiatives that reach beyond such boundaries rightly draw scrutiny. Expansive credit initiatives undermine an independent central bank's legitimacy and potentially its capacity to pursue monetary stability effectively.[31] Expansive independent credit policy that bypasses the legislative process for whatever reason creates complexity and opacity that favors insiders and weakens the public's confidence in government overall.

4) Securing the Promise of Independent Central Banking[32]

Monetary policy disciplined by a priority for price stability is well-suited for delegation by Congress to the independent Federal Reserve. To secure the Fed's credibility for low inflation, Congress in its oversight capacity should accept the Fed's announced 2% inflation objective and hold the Fed accountable for achieving it on average over time. Congress should insist that the Fed adhere to a "Treasuries only" asset acquisition policy, except for occasional lending to depositories, to avoid credit risk on the Fed's balance sheet. The Fed would recycle all interest income on its Treasuries (net of operating expenses) directly back to the fiscal authorities to allocate as they see fit. Operational monetary policy independence with Treasuries only and a priority for price stability would work well and steer the central bank clear of political entanglements.

Fed credit policy has considerable potential to create friction between the Fed, the public and the fiscal authorities. Emergency credit policy works by interposing the government's unique creditworthiness—the power to borrow credibly against future taxes—between private borrowers and lenders to facilitate credit flows to distressed borrowers. Fed credit policy involves lending to private institutions (or acquiring non-Treasury securities) with freshly created bank reserves or the proceeds from the sale of Treasuries. To prevent future inflation, bank reserve creation eventually

[31] See Blinder (1996).
[32] This section draws on themes developed extensively in Goodfriend (2011a).

must be reversed with sales of Treasuries, or else the Fed will have to pay a market interest rate on the reserves. Either way credit policy involves the lending of public funds to particular borrowers financed by interest-bearing liabilities issued against future taxes. The Fed returns the interest on its credit assets to the Treasury, but all such assets carry credit risk and involve the Fed in potentially controversial disputes regarding credit allocation.

Occasional Fed lending to solvent, supervised depositories on short term, against good collateral is protected against ex post loss and ex ante distortion and deserves a degree of operational independence. However, credit initiatives that extend the Fed's credit reach in scale, maturity, and eligible collateral to unsupervised, or potentially insolvent institutions, or the purchase of non-Treasury securities, inevitably carry credit risk, excite questions of fairness, and threaten the legitimacy of both the Fed and the fiscal authorities. Hence, Congress in its oversight role should clarify the boundary of the Fed's responsibilities for taking expansive credit actions and correspondingly restrict its independence in doing so.

The 2010 Dodd-Frank Act recognizes the problem and requires Fed lending extended beyond depositories to be approved by the Treasury Secretary and to be part of a broad program not directed to any particular borrower. The Dodd-Frank requirements do not address the problem adequately, however, because the Administration is no more authorized to commit taxpayer resources than the independent central bank--only Congress can do so. And the Treasury is as likely as the Fed has been to favor expansive credit policy in a financial crisis rather than risk an immediate financial collapse.

To deal effectively with the potential for an expanding and ultimately self-destructive Fed lending reach, taxpayer representatives should be involved more prominently in congressional oversight of expansive Fed credit policy. Expansive lending should be authorized before the fact by Congress in its oversight role, and only as a "bridge loan" accompanied by a "take out" arranged

and guaranteed in advance by Congress. The authorization process should include a clear, explicit, public discussion of the fiscal risks alerting taxpayers in a clear and explicit way to the potential cost of expansive Fed credit initiatives. An expectation of taxpayer reluctance to bear the cost of expansive Fed credit policy could then credibly bend down market expectations of the Fed's lending reach so that banking and credit markets would better insure themselves against liquidity risk. Protecting the legitimacy of the Fed's independence with strong legislative action would defuse the implied promise of expansive Fed credit policy actions in the future and help act against a repetition of the boom and bust cycle in money market finance.

References

Bagehot, W. 1873. *Lombard Street: A Description of the Money Market*. London: Kegan, Paul and Co. [Reprinted 14th edition, 1927 by John Murray, Albermarle Street, W.]

Blinder, A. 1996. "Central Banking in a Democracy," Federal Reserve Bank of Richmond *Economic Quarterly*, 82 (4), pp. 1-14.

Board of Governors of the Federal Reserve System. 1976. *Banking and Monetary Statistics: 1914-1941*, Washington, DC.

Clouse, J. 1994. "Recent Developments in Discount Window Policy." *Federal Reserve Bulletin* 80, no. 11, November, pp. 965-77.

Cukierman, A. 1992. *Central Bank Strategy, Credibility, and Independence: Theory and Evidence*. Cambridge, Mass: MIT Press.

Flandreau, M. and S. Ugolini. 2010. "Where it All Began: Lending of Last Resort and the Making of Sterling as the Leading International Currency in the 1860s," paper presented at the conference "A Return to Jekyll Island: Origins, History, and Future of the Federal Reserve."

Friedman, M. 1961, "Real and Pseudo Gold Standards," *Journal of Law and Economics*, 4 October, pp. 66-79.

_____.1962a. “Should There Be an Independent Monetary Authority,” *In Search of a Monetary Constitution*, Leland Yeager, ed. Cambridge, Mass,: Harvard University Press.

_____.1962b. *Capitalism and Freedom*. Chicago: University of Chicago Press.

_____.1964. “Statement and Testimony (March 3, 1964), “Statement before the US Congress, House of Representatives, Committee on Banking and Currency. In *The Federal Reserve System after Fifty Years*, ed. US Congress House of Representatives, Committee on Banking and Currency, pp. 1133-78, Washington, DC, US Government Printing Office.

Garbade, K. D. 2012. “Federal Reserve Support of the Treasury Market during World War I,” in *Birth of a Market: The U.S. Treasury Securities Market from the Great War to the Great Depression*. Cambridge, Mass: MIT Press, pp. 131-42.

Goodfreind, M. 1988. “Central Banking Under the Gold Standard,” *Carnegie Rochester Conference Series on Public Policy*, Karl Brunner and Allan H. Meltzer, eds. Fall 1988, 29, pp. 85-124.

_____. 1991. “Interest Rates and the Conduct of Monetary Policy,” *Carnegie Rochester Conference Series on Public Policy*, Allan Meltzer and Charles I. Plosser, eds., 34 Spring, pp. 7-30.

_____. 2005. “Inflation Targeting in the United States?” In *The Inflation Targeting Debate*, Ben S. Bernanke and Michael Woodford, eds. Cambridge, Mass.: National Bureau of Economic Research, pp. 311-37.

_____. 2011a. “Central Banking in the Credit Turmoil: An Assessment of Federal Reserve Practice,” *Journal of Monetary Economics*, January, pp. 1-12.

_____. 2011b. “Money Markets,” *Annual Review of Financial Economics*, Robert Merton and Andrew Lo, eds. pp. 119-37.

Goodfriend, M. and J. Lacker. 1999. “Limited Commitment and Central Bank Lending,” Federal Reserve Bank of Richmond *Economic Quarterly*, Volume 85, no. 4, Fall, pp. 1-27.

Goodfriend, M. and R. G. King. 1988. “Financial Deregulation, Monetary Policy, and Central Banking,” Federal Reserve Bank of Richmond *Economic Review* (May/June), pp. 3-22.

_____. 2005. “The Incredible Volcker Disinflation,” *Journal of Monetary Economics* 52(5), pp. 981-1015.

Greenspan, A. 2010. “The Crisis,” Mimeo. Second Draft. March 9.

Hackley, H. H. 1973. *The Lending Functions of the Federal Reserve Banks: A History*. Washington, DC: Board of Governors of the Federal Reserve System, Washington, DC.

Hawtrey, R. G. 1965. *A Century of Bank Rate*. New York: Augustus M. Kelley, Bookseller. Reprint of 1938 edition.

Hetzel, R. L. 1985. "The Rules versus Discretion Debate over Monetary Policy in the 1920s," Federal Reserve Bank of Richmond *Economic Review*, vol. 71 (November/December), pp. 3-14.

_____. 2001. "The Treasury-Fed Accord: A New Narrative Account," Federal Reserve Bank of Richmond *Economic Quarterly*, Volume 87, no. 1, Winter, pp. 33-56.

Jones, J. H. and E. Angly. 1951. *Fifty Billion Dollars: My Thirteen Years with the RFC (1932-1945)*, New York: The Macmillan Company.

Mankiw, N.G., J.A. Miron, and D.N. Weil. 1987. "The Adjustment of Expectations to a Change in Regime: A Study of the Founding of the Federal Reserve, *American Economic Review*, 77, pp. 358-71.

McCallum, B. T. 1995. "Two Fallacies Concerning Central Bank Independence," *American Economic Review Papers and Proceedings* 85, pp. 207-11.

_____. 1997. "Crucial Issues Concerning Central Bank Independence," *Journal of Monetary Economics*, 39 June, pp. 99-112.

Meltzer, A. H. 2003, 2009. *A History of the Federal Reserve, Volumes 1 and 2*, Chicago: University of Chicago Press.

Petition for Fed Independence, *Wall Street Journal*, July 15, 2009, WSJ.com.

Prescott, E. C. 2006. "Nobel Lecture: The Transformation of Macroeconomic Policy and Research," *Journal of Political Economy*, Volume 114, no.2, April, pp. 203-35.

Romer, C and Romer D. 1989. "Does Monetary Policy Matter? A New Test in the Spirit of Friedman and Schwartz," In *NBER Macroeconomics Annual*, Olivier J. Blanchard and Stanley Fisher, eds., pp.121-70.

Schwartz, A. 1992. "The Misuse of the Fed's Discount Window," Federal Reserve Bank of St. Louis *Economic Review* (September/October), pp. 58-69.

Stein, H. 1969. "The Liberation of Monetary Policy," in The Fiscal Revolution in America, Chicago: University of Chicago Press, pp. 241-80.

Todd, W. 1993. "FDICIA's Emergency Liquidity Provisions." Federal Reserve Bank of Cleveland *Economic Review* 29, no. 3, Quarter 3, pp. 16-23.

Taylor, J. B. 1979. "Estimation and Control of a Macroeconomic Model with Rational Expectations," *Econometrica*, 47(5), pp. 1267-86.

Volcker, P. 2008. "Remarks by Paul Volcker at a Luncheon of the Economic Club of New York," April 8.