Measuring Central Bank Independence, Policy Implications, and Federal Reserve Independence

by

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1: Introduction

The modern concept of central bank independence focuses on the *de jure* relationship between the central bank and government established by the central bank's enabling charter defining the institutional design and responsibilities of the central bank. D*e jure* independence is regarded as at least necessary for price stability and judged by the wide acceptance of statistically significant inverse correlations between measures of independence and inflation (e.g., Alesina and Summers, 1993), *de jure* independence is also regarded as sufficient for price stability. The modern view is widely accepted. The IMF and the OECD place high priority on *de jure* central bank independence for both developed and developing countries; central bankers emphasize the importance of independence in the conduct of policy; references to the importance of independence in news accounts are extensive; and, the correlations between measures of independence and inflation are widely accepted and are now becoming standard in textbooks. We are skeptical of the modern view.

The modern view is not convincing from five perspectives.

First, important historical examples contradict the view. The Federal Reserve, considered in the literature to be one of the world's more *de jure* independent central banks, played a key causative role in the Great Inflation from 1965 to 1985. Meanwhile, the Bank of Japan, one of the world's most *de jure* dependent central banks up to 1998, generated an impressive record of price stability during the postwar period after 1950.

Second, detailed review of the actual policy making process of the Federal Reserve suggests far more political sensitivity than the modern view admits. Meltzer's history of the Federal Reserve (Meltzer, 2003 and 2009) demonstrates the sensitivity of the Federal Reserve to political institutions despite its *de jure* independent status. The diary of Arthur Burns from 1969 to 1974 (Ferrell, 2010), which is not cited by Meltzer, reinforces Meltzer's analysis and presents a challenge to the modern view. Likewise, detailed analysis of Bank of Japan policy since 1998, when the Bank of Japan significantly achieved greater *de jure* independence, suggests the Bank remains subject to considerable political influence (Dwyer, 2012).

Third, the time inconsistency literature suggests the case for optimal price stability outcomes from *de jure* independent banks with multiple goals is questionable. Friedman (1962) stressed that a *de jure* independent central bank more likely than not would generate monetary instability.

Fourth, the methodological and statistical foundation of the widely accepted inverse correlations between measures of central bank independence and inflation are questionable on close inspection.

Fifth, central banks are established by governments, which are, to varying degrees, sensitive to those who support their continued existence. Consequently, irrespective of institutional design, central bank policy is better understood from a political economy perspective rather than the modern view that focuses on *de jure* independence and the technical aspects of monetary policy.

In this paper, we will develop each of these points. The paper argues that central bank *de jure* independence is far too uncritically accepted as a foundation for a stable financial and monetary environment. Not only is the modern view's foundation weak but its widespread acceptance permits central banks to engage in suboptimal policy with political undertones under the cover of independence.

The remainder of the paper consists of seven sections. Section 2 outlines the historical evolution of influential central banks suggesting their historical origin is closely related to the need for governments to finance spending. Section 3 shows that under the gold standard and real bills doctrine, institutional design was a relatively unimportant issue and that whatever the merits of these rules, the rules provided the essential independence the central bank required in order to contribute to a stable financial and monetary environment. Section 4 focuses on how the Federal Reserve Treasury Accord of 1951 elevated *de jure* independence as the foundation for a stable financial and monetary environment. Sections 5 and 6 focuses on a detailed review of Federal Reserve policy in the postwar period and argue the *de facto* behavior of Federal Reserve behavior does not support the modern view's emphasis on *de jure* independence. In particular, the diary of Burns is most revealing. Section 7 summarizes a critical review of the widely accepted correlations between measures of independence based on *de jure* independence that provide the empirical foundation for the modern view. A short concluding section ends the paper suggesting that Federal Reserve independence and central bank independence in general is more myth than reality.

2: The Modern Concept of Central Bank Independence in Historical Perspective

The history of central banks provides perspective on their relationship to governments and the question of independence (Smith 1990; White 1989; Schuler 1996; Selgin and White 1999; Ferguson 2009; O'Driscoll 2012). The Bank of England was founded in 1694 in response to the most recent of a long line of fiscal embarrassments experienced by English Kings. Charles II had spent and borrowed heavily, and defaulted on loans by his bankers. The king's credit was left in ruins. His successor, William III schemed to raise £1,200,000. The government accomplished this in a clause of the Tonnage Act of 1694 by creating the Governor and Company of the Bank of England. That sum was raised as capital and immediately lent to the government. In turn, the Bank was permitted to issue notes in the same amount. As Smith (1990: 12) summarizes: “the history of the Bank was a series of exchanges of favours between a needy Government and an accommodating corporation.”

Kings repeatedly offered favors and privileges in return for revenue. There was nothing particularly notable about the creation of this new bank. In 1709, there was a renewal and extension of the bank’s privileges. The bank was allowed to raise more capital so that it could lend more to the government. Between 1694 and the beginning of the 19th century, this model would be followed seven times. A renewal of the bank’s charter would be granted, more capital raised, more loans to the government made, and more notes put into circulation (Smith 1990: 13). The Bank of England was established to finance the king’s extravagances and wars. Its activities could not be reasonably construed as monetary policy (if such a concept existed at that point), and were more akin to fiscal policy. It acquired a monetary role only gradually, over time, as the consequence of gaining more privileges. An important example was gaining of legal tender status for its notes in 1812 (Smith 1990:15-16).

The Napoleonic Wars created urgent new fiscal demands. Early in the wars, the government’s borrowings became so great as to threaten the bank’s survival. Parliament passed an Act to suspend cash payments. Smith (1990: 15) observed that this “created a precedent which led the public in the future always to expect the Government to come to the aid of the Bank in difficult circumstances.”

With conclusion of the Napoleonic Wars, Britain introduced a series of mutually reinforcing reforms, which had the effect of introducing a new economic order (Coinage Act of 1816; Resumption Act of 1819; and, repeal of the Corn Laws in 1846). *Inter alia,* this included the adoption of a gold standard and free trade.

Even with the costs of an empire, including maintaining freedom of the seas, Britain experienced strong economic growth and generated tax revenues sufficient to fund the government. Accordingly, the Bank of England no longer needed to print money to finance government expenditures.

In France, John Law's scheme to erect a currency system based on land values ended in inflation and caused a revulsion against note issues of any kind. Eventually note issues were allowed to resume, and by the 1790s there was limited banking freedom. Napoleon's rise and his war campaigns created a need for financing. It led to the creation of the Bank of France, which eventually acquired an effective monopoly of note issuance. In mid-19th century France, there were debates over free banking and attempts to implement competition in currency issuance (Smith 1990: 35-41), but monopoly won out. Like England, central banking in France had its origin in the need to finance government deficits.

Germany is a complicated story because of the existence of so many German states. In Prussia, which would come to dominate the other states and unite them, Frederick the Great founded the Royal Bank of Berlin as a privileged bank. As In England and France, it was required to lend to the government and suffered heavy losses doing so. The Royal Bank was reconstituted as the Prussian Bank in 1846 (Smith 1990: 61). In 1875, an act created the Reichsbank "and secured to the Reichsbank the position of a modern central bank" (Smith 1990: 70). The origins of first banking and then central banking were the fiscal requirements of an expanding Prussian state.

The United States is a still more complex story. Before the Civil War, banking was mainly governed by state law and regulation. There were two failed efforts at establishing national banks: the First Bank of the United States (1791-1811) and the Second Bank of the

United States (1816-36). Each effort reflected a Hamiltonian goal of spurring economic development. Both were denied re-chartering by Jeffersonian and Jacksonian opposition to "money power."

Generally, banks were at first specially chartered by state legislatures with grants of limited liability. Beginning with a New York statute in 1838, banks could obtain charters under a general law of incorporation. The rules for obtaining the charter and those governing note issuance and capitalization were specified in advance. All who could meet the requirements could obtain a bank charter. The system was called "free banking," a misnomer. There were many rules and regulations, and, according to Smith (1990: 42), they amounted to a system of "decentralisation without freedom".

State-chartered banks were restricted to branching within the boundaries of their state, if branching were even permitted. That result was a system of small, financially undiversified banks. Additionally, there were requirements for banks to hold state bonds as collateral for notes. So, while there was decentralization and certainly no central bank, there were inherent linkages established between banks and the states in which they were chartered. Banks were often permitted to value the state bonds at par, even when they traded at a discount. That created incentives for over-issuance of notes. Despite the problems, the free banking period provided a monetary system that functioned reasonably well despite the claims by some it was characterized by chaos and "wildcat banking" (White 1989: 52-54).

In antebellum America, the federal government was not large nor did it exert significant fiscal demands on the financial system with the exception of the War of 1812. The Civil War changed all that with its large expenditures required by both sides. The strain of managing the Union government's finances led to the enactment of the National Banking Acts of 1863 and

1864. They created a system of nationally chartered banks of issue, whose notes were backed by Treasury bonds. Notes issued by state banks were taxed out of existence.

The national banking system provided privately issued currency and operated until the Federal Reserve System was created, though at various times the Treasury issued currency. The system had flaws and has been frequently criticized. There were banking panics and crises in 1873, 1884, 1890, 1893, and 1907. Despite these, the period overall saw strong economic growth and, while the period from 1870 to 1890 witnessed declining prices, this was the result of the rapid economic growth and limited supplies of gold (Rockoff, 1990). Salsman (1993: 86) argued that the 19th century crises "were briefer, milder, and involved acute illiquidity, whereas this [20th] century crises have involved prolonged periods of recession and depression, widespread bank failure, and chronic insolvency." Selgin, *et al*. (2012) survey the historical literature and also provide a more positive view of the pre-Federal Reserve financial structure.

The flaws in the national banking system were the consequence of features of the enabling legislation. The requirement that Treasury bonds serve as collateral for note issue could not easily be satisfied because the federal government was retiring debt after the end of the Civil War. The legal pyramided reserve requirement system imposed on banks made it difficult for banks to meet heightened borrowing demand in times of financial stress. Friedman and Schwartz (1963: 177-18n44) observed that, in his 1894 *Annual report*, Comptroller of the Currency Eckels called for repeal of all laws requiring U.S. bonds as security for national bank notes, and for adoption of an asset-backed currency.

The National Bank Act thus created a peculiar kind of dependency on the part of banks to the federal government. The economy needed banks to provide a growing supply of notes, but the supply was constrained by the Treasury's debt-redemption policies. It was the reverse of the historical relationship between banks of issuance and the government. It represents one of the few times fiscal policy constrained note issuance.

After the Panic of 1907, there was growing demand for change to the system. Reform of the collateral and reserve requirements would have addressed the central problem of a constrained supply of notes. But large banks and Progressives came together to support a central bank (Kolko, 1963). Creation of the Federal Reserve was less about monetary policy and more about the role of large banks in the political economy.

In its inception, the Federal Reserve did not fit the model of central banking in the service of the Treasury. World War I would soon put the Federal Reserve into that role, however. After the war and depression of 1920-21, politics and the economy returned to normalcy. The Federal Reserve returned to managing the gold standard and to a large degree that insulated the Bank from political pressure. The main pressure came in the form of calls for stabilizing specific prices like agricultural prices, which were successfully resisted (Meltzer, 2003: 181-92).

The Federal Reserve as financer of large, peacetime deficits came during the New Deal period. World War II required the Federal Reserve to remain financer of government deficits. The Federal Reserve operated a bond-support program to help finance the large deficits by pegging interest rates on government securities at low levels. The Federal Reserve continued the pegging program for almost six years after the end of WW II. Inflation surged and the Federal Reserve made the case for a return to formal independence with the flexibility to increase interest rates. The conflict between Treasury and the Federal Reserve intensified and became public by December 1950 (Meltzer 2003: 698-99). There followed a series of meetings between Treasury and the Federal Reserve, and even with President Truman. On March 4, 1951 the Treasury and the Federal Reserve issued a joint statement of their Accord. The Federal Reserve was freed of its wartime responsibilities to support bond prices.

The basic point of the brief historical overview is to show that governments established central banks not so much to contribute to a stable monetary environment, but more as institutions to support government spending and/or industrial policies. We concentrated on some of the major central banks. Their monetary control role with the objective of price stability was a subsequent development. The historical relationship between government and central banks was likely to influence central bank behavior despite the evolution of central bank policy to more general goals.

3: Rules and Central Bank Institutional Design

Central banks are political institutions that make it easier for governments to spend more than received in revenue and/or to pursue specific industrial policies. Deficits have only three solutions: reduce spending, increases taxes or debt monetization. Governments to the right or left are reluctant to pursue the first two solutions and find monetization as a solution consistent with the time perspective of government officials. Time inconsistency not only explains why independent central banks tend to be inflationary over time but also explains why governments have a bias to debase money.

Ricardo was one of the first to recognize this inherent conflict between government and the money supply, but also extended the argument to public discretionary control over the money supply. Ricardo suggested that neither a state nor a bank could be trusted to manage paper money without abusing the power; that is, each would have incentives to over issue money to support its own agendas. The only difference being the state had more power to control the money supply, and it could more readily rationalize its actions under the umbrella of the public interest. While not adopting the modern terminology of central bank independence, Ricardo understood that merely rendering a central bank *de jure* independent was not necessary or sufficient to limit money creation and stabilize the price level. Ricardo concluded the most effective control was "subjecting the issuers of paper money to the obligation of paying their notes, either in gold coin or bullion." (Ricardo, 1951: 356) The particular institutional design of the central bank was relatively less important.

The Ricardian perspective was embodied in the Bank Charter Act of 1844 or Peel Act, which released the Bank of England from the burden of funding overextended governments by giving the Bank of England a monopoly over note issue and requiring new Bank Notes to be backed 100 percent by gold. Essentially, the Bank of England may be said to have gained its independence of government, but it did so only because it was bound by the rule of the gold standard. In the process, it lost the discretion to expand the money supply for its own agenda. The Bank retained that independence for almost a 100-year period until World War I.

The Bank of England established a model. Central banks became constrained by rules, which rendered them independent of political and/or private incentives to over expand the money supply. The phrase "independence" has been turned on its head in the modern view. Independence today refers to an institutional design that permits central banks with discretionary power to achieve price stability or as accurately described by Blinder (1998, p. 49) as "enlightened discretion." Independence in historical context referred to an institutional design in which central banks did not have significant discretionary power, but instead were constrained by a set of rules limiting the expansion of the money supply.

This observation is not meant to imply the rules were the appropriate rules. In fact, the gold standard and real bills doctrine had limitations and most important, market innovations rendered these specific rules less relevant over time. There were private incentives to expand the money supply when the supply of the commodity money was insufficient to meet the needs of economic growth as during the latter part of the 19th century in the United States. Currency issue was constrained by the declining supply of government debt. So banks relied more on deposit creation.

The shift from a commodity based to a fiat money supply may have been desirable, but it conflicted with the specific set of rules designed in the 19th century. This was not an argument against rules, however, but only an argument against the specific rules that emerged in the 19th century. As the influence of the gold standard and real bills doctrine waned, central banks gained increased ability to manage the money supply independent of any rule. Independence came to be understood as an institutional design that permitted central banks to use their discretion in the absence of rules to pursue price stability and lender of last resort responsibilities.

3: The Misunderstood 1951 Accord

The Accord has generated a misconception about Federal Reserve independence and established a misdirected concept of central bank independence in general for decades. The conventional view is that once the Federal Reserve regained its independence, and was thus freed from political pressure, it was able to pursue price stability as judged by the inflation record of the 1950s. This is incorrect. In no sense was the Federal Reserve freed from political pressure; in fact, Federal Reserve Chairman McCabe was forced to resign several days after the 1951

Accord by the White House. President Truman informed McCabe "his services were no longer satisfactory" and McCabe resigned on March 9, 1951 despite the fact his term as a Board member legally extended until 1956 (Meltzer 2003: 712).

Nonetheless, the Accord is the origin of the modern notion of Federal Reserve independence. Since the United States was the most powerful and influential country in the world at that time, and given the role of the Federal Reserve among other central banks and the role of the dollar as a key currency, this view was largely adopted elsewhere. The narrative around the Accord has formed the context of central bank independence discussion to the present. The 1951 Accord illuminates the sense in which the Federal Reserve can have operational independence; that is, the Federal Reserve was no longer required to support the prices of government securities. Events surrounding the Accord, however, and subsequent Federal Reserve history illustrates the limitations of *de jure* independence. On many occasions, Federal Reserve policy was *de facto* dependent.

The distinction between *de facto* and *de jure* independence is critical to the discussion of central bank independence and much confusion about the subject has been generated by the failure to distinguish between the two concepts. In fact, from a strictly legal perspective the Federal Reserve has never had *de jure* independence to pursue price stability since it is required to pursue multiple policy targets. The Federal Reserve has clearly had operational independence, but not policy target independence and as such cannot be regarded as an independent central bank focused on price stability. A central bank with a single policy target (price stability) and well-defined lender of last resort function is more independent in the traditional sense than the Federal Reserve with its multiple policy targets. And, as we argue below, the increasingly frequent and expanded use of lender of last resort powers has further compromised its *de facto* independence.

It is even questionable whether the Federal Reserve can be termed *de jure* independent. Under Article I, Section 8 of the U.S. Constitution, Congress has the power to coin money and regulate its value. That power has been interpreted as the source of Congressional power to create the Federal Reserve System. It is also true, however, that Congress cannot delegate the power to make law. That was decided decisively in a unanimous Supreme Court decision in *J. W. Hampton, Jr. & Co.v. United States, 276 U.S. 394 (1928).*

Hampton was a tariff case. Congress had enacted the Tariff Act of 1922 creating a Tariff Commission, which could hold hearings and recommend to the President changes in duties based on the relative costs of producing a good in the United States versus in other countries. The President could then issue a proclamation adjusting the tariff rate with ranges specified in the statute. This was a scheme for protection; however, the litigation resulting from the Act is relevant for the subject of this paper.

The plaintiff alleged the statute was unconstitutional because it delegated legislative power to the President. Writing for the Court, Chief Justice Taft ruled that it would be "a breach of the national fundamental law if Congress gives up its legislative power and transfers it to the President."

The Court distinguished between delegation to make law and conferring authority to execute the law. The first is impermissible, and the second unobjectionable and even necessary at times. The legal principle is *delegata potestas non potest delegari,* "no delegated power can be further delegated." In Hampton the Court ruled that Congress had only delegated authority to execute the law not to make it.

Accordingly, the Federal Reserve is and must remain a creature of Congress, and legally dependent. What Congress has delegated to the central bank is the power to execute a Congressional "Plan" (to use the language of Hampton). In the world of monetary policy, rather than tariffs, Congress has given the Federal Reserve operational authority only. In light of the law on delegation, the literature's view of Federal Reserve *de jure* independence appears overdrawn.[1]

The Fed's structure has complicated the discussion of independence. Opponents of the Federal Reserve 100 years ago vehemently objected to the creation of a central bank. The Reserve Banks made the system decentralized and placated the objections. Cynics (or realists) argue that the creation of the reserve banks obscured the fact that the Federal Reserve was in fact a central bank. Still, from the beginning and for the first two decades of the Federal Reserve's history there was constant struggle for power between the banks and the Board. Meltzer (2003: 5) summed up the history of the power struggle. The Banking Act of 1935 "permanently shifted the locus of power to the Board. The Federal Reserve became a central bank. The twelve regional reserve banks lost their semiautonomous status and much of their original independence."

The latter sense of independence still exists to a limited sense. The Reserve Banks remain legally private institutions and their employees are not government employees. But this independence is highly attenuated. In practice, the Board of Governors, not the individual Reserve Bank's Board of Directors, oversees management of the banks.

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[1] Walker Todd greatly helped with the legal analysis. His views on Hampton in light of more recent cases are presented in *Schroeder v. Bush, 263 F.3d 1169 (10th Cir. 2001); petition for cert., case no. 01-744 (Nov. 28, 2001); cert. denied_U.S._(Jan. 7, 2001).* In *Whitman v. Amer. Trucking Assn. 531 U.S. 437 (2001),* Justice Thomas issued a concurring opinion in which he declared himself open to considering whether delegation jurisprudence had gone too far and strayed from the "Founders' understanding of separation of powers."

The Accord of 1951 provided the foundation for the modern view of independence. In the independence literature, once the Federal Reserve was not required to support government bond prices it was able to focus on price stability. This ignored the fact the Federal Reserve operated with multiple policy targets and monetary policy in general was nontransparent (Santoni 1986). Thus, the Federal Reserve was independent to pursue whatever targets appropriate at the time and there was no guarantee the choice would be invariant to wishes of the government. There was no guarantee the "independent" Federal Reserve would achieve price stability – the claimed outcome of an independent central bank. Federal Reserve history is consistent with the hypothesis Federal Reserve independence in the sense of independence from political or other incentives to pursue price stability is more myth than reality.

The following two sections review some of that history, in particular the critical period of Federal Reserve history referred to as the Great Inflation. After this review we then turn our attention to the claimed stability of the inverse correlations between central bank independence and inflation that are frequently offered to support the traditional view.

4: The Post-Accord Federal Reserve – Martin and Burns

Federal budget deficits shrank to comparatively small amounts after the end of the Korean War in 1953. The budget deficit of fiscal year 1955 was half that of 1953. There were budget surpluses in 1956 and 57 and again in 1960 (Office of Management and Budget, Table 1.1). Spikes in budget deficits were associated with recessions and did not represent shifts in the structural deficit (Buchanan and Wagner 1977: 43-47).

The era of Keynesian growth-enhancing spending, major social programs and political pressure on the Federal Reserve did not come until the Kennedy and Johnson administrations

(Buchanan and Wagner 1977: 47-50). Meltzer's detailed history clearly shows the increasing politicization of the Federal Reserve under Martin from the early 1960s to his retirement in 1970. Martin is often credited with maintaining an independent monetary policy and at times, the accounts of his role at the Federal Reserve are more hagiography than biography (*Economist* 1998). The reputation, however, is contradicted by actual history considering his performance once Keynesian-activist fiscal and monetary policy was implemented by the Kennedy and Johnson administrations. The 1950s were not much of a challenge to any Federal Reserve chairman, nor a test of institution's independence, to navigate monetary policy because the 1950s were an era of small budget deficits or even surpluses and a relatively non-activist government.

The era of small deficits allowed Martin to utilize countercyclical monetary policy ("leaning against the wind") to maintain economic growth and keep inflation low (Friedman and Schwartz 1963: 631 and 631n33). Martin was not seriously tested until Johnson implemented the Great Society and then launched the Vietnam War. Deficits ballooned which the Federal Reserve at least partially accommodated. Meltzer's history provides ample references to illustrate Martin's vision of independence that placed a rather low importance on price stability. The result was an increase in the inflation rate after 1965 that by the following decade became the Great Inflation.

Martin's term as Governor ended by statute on January 31, 1970, and President Nixon replaced him with Arthur F. Burns. Burns had served as Chairman of the Council of Economic Advisors in the Eisenhower Administration and advised Nixon in his failed run for the presidency in 1960. Nixon trusted Burns and brought him into the Administration to serve as Counselor to the President. In that position, he attended cabinet meetings and met frequently with the president. On January 31, 1970 Burns was sworn in as the new Federal Reserve Chairman.

The Federal Reserve's performance under Burns' chairmanship has been heavily criticized. In Burns' own words, by late 1970 "the country now faces an entirely new problem – namely a sizeable inflation in the midst of recession" (Ferrell 2010: 28). Our focus is not on the technical issues of the failure of monetary policy in the 1970s which have been reviewed in many places. Our question is the *why*. If any scholar had remaining doubts about whether Nixon and Burns politicized the Federal Reserve, Burns' diary is a strong antidote. We now have an account of what happened in Burns' own words. The diary was secret, or as secret as anything is these days, and only opened to the public in 2008 at the Gerald R. Ford library in Ann Arbor (Ferrell 2010: xi). Those who adhere to the modern view of central bank independence will be seriously challenged after a review of the diary.

Not surprisingly, Burns casts his role in the best possible light. In his view, the president is surrounded by men of weak character and intelligence. Martin was a "pathetic slob" (Ferrell 2010: 14). Though he later revised his opinion, he initially held George Shultz in low esteem. Then there was the "poor and wretched [Paul] Volcker – never knowing where he stood on any issue" (Ferrell 2010: 65). And, of course, there were Ehrlichman and Haldeman who would not likely have fared well in any diaries but their own.

Burns remained an integral part of the Nixon Administration, continuing to function in some ways as counselor while serving as Federal Reserve Chairman. He attended cabinet meetings and was a frequent White House visitor. Some of those meetings involved the Quadriad: the Federal Reserve Chairman, the Chairman of the Council of Economic Advisors, the Director of the OMB, and the Secretary of the Treasury, and so dealt with economic policy.

But Burns also participated in many political discussions, including of the president's re-election prospects. At a meeting with Nixon on March 21, 1971, Burns made the following entry about Nixon: "he agreed with my policy, that he preferred a slow start of the recovery which may then gather momentum in 1972." Burns continued that "he wants to rely primarily on me and [John] Connally in monitoring policy, that McCracken and Shultz – while able economists – did not understand politics, that I could handle both economics and politics, and that Connally was good at politics and therefore a great asset" (Ferrell 2010: 40).

The Nixon White House was under sway of what can be called "political monetarism." His aides accepted the arguments of Friedman on the power of monetary policy. Friedman, of course, wanted monetary policy to be employed to control inflation and thus maximize long-term economic growth. The Nixon White House understood that suitably timed monetary surprises could temporarily boost economic growth and help the re-election prospects of a president. Consequently, they were repeatedly pressuring Burns to boost money supply growth. Burns expressed no problems with this pressure in his diary other than he was on top of things and it was a matter of timing.

In an entry dated February 29, 1972 (but referring to a meeting with Nixon on February 14th), Burns recounts that he told the president: "I was looking after monetary policy and that he need not be concerned about the possibility that the Federal Reserve would starve the economy" (Ferrell 2010: 74-75). And Burns continued about "personnel problems" at the Board. Federal Reserve Governor Andrew Brimmer had spoken his mind independently in public. Burns wanted him out and asked Nixon to find a position for him outside of the Federal Reserve. They discussed ambassadorships. Burns observed wryly that "I expressed strong doubt about Brimmer accepting an African post" (Ferrell 2010: 75). Brimmer was black.

We encourage economists who adhere to the modern view of independence to study of the history of the Federal Reserve under both Martin and Burns. The price stability of the 1950s did indeed appear consistent with an independent central bank focused on price stability; however, Martin had little problem shifting to a more supportive role of the government as the government shifted to a more activist-Keynesian orientation in the Kennedy and Johnson administrations. Burns who came to the Board with strong academic credentials continued the Martin tradition of viewing Federal Reserve independence as "independence within government" and throughout the 1970s conducted monetary policy during the Nixon, Ford and Carter administrations with the same political sensitivity. Many observers have noted that Nixon played politics with the Federal Reserve, but dismiss the general importance of the episode by presenting Nixon and Burns as aberrations. We regard this as selective elimination of information. In contrast, we believe that Federal Reserve independence to pursue price stability is the aberration, and not the norm as in the modern view of central bank independence. The norm is for the Federal Reserve to be sensitive to political pressure.

It should be noted in passing that advocates of the modern view also dismiss the Bank of Japan's record of price stability from 1950 through 1980s (the early 1970s being an exception) as an aberration of the view dependent central banks generate higher inflation than independent central banks. The Bank of Japan has always been a problem for the modern view because as one of the world's most *de jure* dependent central banks from 1882 through 1998, the Bank of Japan achieved an impressive record of price stability throughout much of the post war period.

One can only go to the "aberration" well so often before one should starting questioning the underlying foundation of one's view.

6: The Post-Burns Federal Reserve

Paul Volcker did much to restore the Federal Reserve's reputation and its image as independent price stabilizing central bank. He was able to do so, however, because he had the backing of President Reagan, who had been convinced by his economic advisors, like George Shultz, that ending inflation was critical to restoring prosperity (Pollock 2012: A11). So Volcker gained the operational independence to end inflation by elevating price stability as the most important final policy target. He was able to act independently of congressional and popular will due to his backing by the president. Reagan's firing of the air controllers in 1981 convinced markets the Federal Reserve would be permitted to continue with its disinflation policy.

The contrasts between Martin, Burns and Volker are critical to understanding the weakness of the modern view. Independence to pursue price stability is conditioned on the political environment irrespective of the *de jure* institutional relationship between the central bank and the government. The episodes illustrate that, in discussing central bank independence, on must always ask "independent" of whom and in what time frame?

The Volcker Federal Reserve arguably gained operational independence of Congress to end inflation but this political acquiescence was not permanent. The Federal Reserve accomplished this by becoming more politically dependent on the executive branch. The only thing asked in return by President Reagan was good monetary policy and while this was in the country's best interest, political support even in the right direction is no foundation for a price stabilizing central bank. In passing, the same can be said for the Bank of Japan, which under political pressure adopted a more aggressive anti-deflation policy under the Koizumi administration (Cargill and Sakamoto, 2008); and, most recently, adopted an inflation target in February 2012.

Political pressure is political pressure even if it happens to be correct policy and thus, the Volker Federal Reserve or the Bank of Japan policy to disinflation and inflate, respectively, illustrate the close connection between central banks and their governments.

The Volcker Federal Reserve was relatively independent, certainly more so than under Martin and especially, under Burns and more so than today, as we argue below. Volcker was succeeded by Alan Greenspan, who in turn was succeeded by Ben Bernanke. All are still living, and Bernanke still serves as Chairman. That complicates rendering an objective assessment. In Greenspan's case, time has passed since he completed his term. We have no diary, only a self-serving defense of his tenure.

Analyzing Greenspan's tenure's involves answering a two-part question. First, is the Greenspan Federal Reserve partly culpable for the housing boom and bust? Second, if the first answer is affirmative, is there evidence politics played a role?

Greenspan has been praised from many quarters for guiding the Federal Reserve through what is now termed the Great Moderation. From the early 1980s to around 2007, the growth rate of real GDP was more stable than in other years in the postwar period (Taylor 2009: 34-35 and 66-67). There is controversy over why the macro economy was more stable (despite great Schumpeterian creative destruction). Taylor (2009: 2-3) argues that Federal Reserve policy followed the Taylor Rule throughout much of the period. Beginning in 2002, however, and continuing into 2006, the federal funds rate was pushed below the level predicted by the Taylor Rule; for instance, in 2004 the rate was 1 percent when the Taylor Rule indicated the rate should be 4 percent. In short, the Federal Reserve kept short-term rates too low for many years. That contributed to the housing boom and subsequent bust. Taylor (2009: 4-6) sums up the counterfactual of the Federal Reserve following the Taylor Rule: "No Boom, No Bust."

There are complimentary variants of Taylor's analysis (Schwartz, 2009 and O'Driscoll, 2009); however, all agree the Federal Reserve contributed to the housing boom and subsequent bust. This might not have occurred had the increased liquidity occurred in the context of a structurally stable financial system, but it did not. The U.S. financial system was fundamentally flawed because much of it was politically designed to encourage homeownership, and government sponsored enterprises (Freddie Mac and Fannie Mae) played a major role in the socialization of private risk taking in the mortgage market. Hence, the answer to the first question is yes – the Federal Reserve easy monetary policy from 2001 through 2004 played a major role in the run up of house prices.

Is there evidence Greenspan did more than make a serious policy error by deviating from his own successful implementation of the Taylor Rule? To our knowledge, there is no documentary evidence that he acted politically in the manner of Burns. But Greenspan offered the following observation after his April 7, 2010 testimony to the Financial Crisis Commission. "He argued that if the Federal Reserve had tried to slow the housing market amid a 'fairly broad consensus' about encouraging homeownership, 'the Congress would have clamped down on us'" (*New York Times* 2010).

Greenspan's tantalizing tidbit supports our thesis. We are not focused on tawdry episodes in which an errant chairman put the Federal Reserve into the service of a president's re-election campaign as under the Burns Federal Reserve. Our thesis is that the Federal Reserve does not operate independently of other parts of government. Greenspan's remarks, admittedly not fleshed out, reveal that the Federal Reserve is not *de facto* independent. The Greenspan period also amplifies Friedman's warning (Friedman, 1962, p. 5) that vesting so much power in the hands of so few, whether they are motivated by political or non-political considerations, is not consistent with a price stabilizing central bank.

Bernanke became Chairman on February 1, 2006. He had served for a little less than three years as a Governor, 2002-05. He then moved to the Council of Economic Advisers before moving back to the Federal Reserve. The housing boom was already under way. Indeed, in retrospect housing peaked in early 2006. Housing finance was being driven by re-financings in that year, and interest rates were on the rise. As Greenspan's successor, Bernanke would normally be held accountable only for how he handled the collapse and not for the prior monetary-driven boom. But during his tenure as Governor, he strongly supported Greenspan's expansionary monetary policy. Indeed, by some accounts, he was the policy's architect.

Let us turn, however, to his handling of policy beginning in 2006. We reviewed his semi-annual monetary reports and testimony to Congress (sometimes one or the other because of online access problems). We also reviewed other testimony and speeches. We came away with the sense that he was always about six months behind events. Private-sector analysts were calling a major downturn in housing and problems in the financial sector before the chairman recognized them. Considering Bernanke's academic background, we looked for an emphasis on the long run and the fundamental economic determinants of sustainable growth and low inflation. Instead we saw a focus on the short run and even ephemera. As an example of the latter, we point to his commentaries in 2006 on the hurricane season of the previous year and the federal payments to victims. It is difficult to imagine a more transitory event, and we marveled that the head of a central bank would get into such a discussion.

The short-run focus suggests to us that the chairman has been captured by the Board of Governors' staff, rather than bringing much-needed changes to the bureaucracy. It is likewise difficult to understand the decision of the Federal Reserve to adopt an industrial policy to support the housing market with open market purchases of almost $1 trillion in Freddie and Fannie debt and mortgage backed bonds representing almost 50 percent of the Federal Reserve's securities portfolio.

The decision by the FOMC at its September meeting to initiate another round of Federal Reserve purchases of mortgage-backed securities is difficult to understand in the context of almost four years of unprecedented easy monetary policy. In the context of a mortgage market in which 90 percent of the new mortgages are being purchased or guaranteed by the government and in which at least 50 percent of the government deficit is being monetized by bond purchases, the concept of central bank independence to pursue price stability is becoming a quaint concept of an earlier age.

By contrast, both Volcker and Greenspan on multiple occasions chided Board staff for their forecasts based on the supposed short-run tradeoff between inflation and unemployment. Bernanke has apparently embraced the Phillips Curve and staff forecasts based on it (Meltzer 2012: A13). Most importantly, Bernanke was late to the game on the housing downturn and crisis in housing finance. For instance, in his July 2008 report to Congress, he certainly acknowledged problems in subprime mortgages and the recent bailout of Bear Stearns. But he also observed that in the second quarter "financial market conditions improved somewhat." That turned out to be excessively optimistic as it came on the eve of what amounted to conservatorship for Fannie Mae and Freddie Mac; the September 15, 2008 bankruptcy filing of Lehman Brothers; and then the collapse and federal takeover of Fannie Mae and Freddie Mac. This was a sad performance for the head of an institution that prides itself on its knowledge of the financial sector, and believes it has superior economic forecasting abilities. How is such an institution to serve as regulator of systemic risk, when it did not recognize it staring it in the face in 2006-08?

This is relevant to our inquiry for the following reasons. The emphasis on the short run is the systematic failure of the Federal Reserve, long noted by historians such as Friedman and Schwartz, and Meltzer. By focusing on the short run, policymakers inevitably subject themselves to political pressures to address short-run economic phenomena, which the central bank is ill equipped to do. Friedman's analysis of long and variables lags in monetary policy (Friedman 1961) and his 1967 AEA presidential address on the role of monetary policy (Friedman 1968) are as relevant today as they were almost a half century ago. Bernanke from time to time acknowledges lags in monetary policy, but has ignored them in practice.

The failure to forecast the biggest financial crisis since the Great Depression undermines any claim by the Federal Reserve to be able to engage in discretionary, macroeconomic stabilization policy. That failure (and many others) is the practical argument for the kind of long-run policies advocated by researchers like Friedman, Meltzer, Taylor, et al. On the FOMC, they have included presidents like Lee Hoskins and Jerry Jordan in the past, and Charles Plosser, Jeffrey Lacker and Richard Fisher today.

It is difficult to over-estimate how the focus on the short run exposes the Federal Reserve to political pressure and puts it in the bind that Greenspan described. The Federal Reserve under Bernanke has become more focused on quick economic fixes for long-term problems. After being behind the curve in 2008, Bernanke supplied multiple rounds of liquidity to the financial sector. True liquidity crises are relatively short-lived, measured in days and weeks rather than months and certainly not years. There was a serious liquidity crisis after Lehman's failure and the Federal Reserve responded appropriately. QE1 was not even implemented until November, 2008, however, and ended only in March 2010. Then QE2 was implemented in November 2010 and lasted through June 2011. Now an open-ended QE3 is being implemented.. The liquidity crisis was likely over before the first QE was put in place.

What is in short supply today is not liquidity, of which there is abundance in the financial system, but capital and solvency. Banks and other financial institutions were severely damaged by the financial crisis. Their balance sheets have yet to be completely repaired and they continue to deleverage. Liquidity is not a substitute for capital. Neither the Bush nor Obama administration has wanted to take the serious measures needed to address weakened and insolvent financial institutions. Short-term lending becomes the substitute for long-term solutions.

The problem is even more acute at the moment in Europe, notably Spain, but our focus is the United States. TARP was political theater, not a serious effort at recapitalizing U.S. banks. A serious effort would have more resembled the Reconstruction Finance Corporation of the 1930s, in which taxpayers got a serious stake in bailed-out banks, on businesslike terms. In this environment the Federal Reserve was pushed into "doing something" when Congress or the administration would not act. Successive rounds of targeted lending to particular banks, particular sectors (e.g., housing) and even nonfinancial firms (e.g., automakers) is a form of fiscal policy (Lacker 2012). It is a covert way of transferring real resources to favored recipients, fiscal policy without an appropriation. It is a dangerous precedent for the Federal Reserve because it will only be called on to do more of it in the future. It is moral hazard in monetary policy. Moreover, whatever the original motivation for targeted lending, Public Choice tells us that it will be transformed into giveaways to favored constituencies. The central bank then becomes complicit in crony capitalism. That is how central banks operate in banana republics, not a constitutional republic. And the central bank's actions are always in the furtherance of the interests of the current administration, which makes them not only political but partisan.

We do not question either Bernanke's motives or good intentions. In our judgment, however, he has moved the Federal Reserve institutionally into politics more than any other Federal Reserve chairman. Burns was an unusually politically sensitive individual who allowed his self-interest to dominate his public responsibility; however, the institution survived because of a shift in political environment. Part of the reason is that the Burns Federal Reserve never strayed from conventional monetary policy into fiscal policy as the current leadership of the Federal Reserve has been so willing to drift. The Federal Reserve eventually got Paul Volcker as chairman, who broke the back of inflation; restored the institution's stature; and began the policy that resulted in the Great Moderation. Under Volcker and Greenspan, the Federal Reserve regained a degree of operational independence because it followed an implicit rule. The fact that it was not an explicit rule left it exposed to the risk of being politicized once again. And it has been.

The requirement to follow a rule is what gives a central bank independence from political pressures. Paradoxically, being bound by a rule is what makes a bank independent. If it wants the "freedom," of discretion, it will lose its independence. The rule can be a price rule (e.g., zero inflation), a rate rule (inflation targeting) or a commodity standard. The gold standard was a rule and helped the Federal Reserve resist congressional demands in the 1920s for a phony price rule to stabilize this or that price (typically agricultural prices). In fact, the Federal Reserve was pursuing a policy resembling one of price stability in the modern sense (stable prices overall). Meltzer (2003:181-92) provides much insight into this episode.

Central bank independence is intimately tied to rules that constraint the central bank to focus on price stability, preferably a legislated rule. Focus on the short term inevitably leads the central bank into the political thicket and the loss of *de facto* independence. Central bank independence is more easily lost than restored.

7: The Empirical Foundation of the Modern View is Flawed[2]

The conventional view of central bank independence is not supported by a close historical review of Federal Reserve policy nor is it supported by a close historical review of Bank of Japan policy (Cargill, Hutchison and Ito, 1997 and 2000; Cargill and Sakamoto, 2008; and most recently, Dwyer, 2012). There is a tendency to regard these and other historical episodes as aberrations from the general rule and a large body of empirical evidence over the past two decades seems to support the aberration perspective.

These studies measuring central bank independence report statistically significant inverse correlations between the measures and inflation. These results are now widely accepted and have now become part of the normal presentation of central bank topics in macro and monetary economics textbooks and an important foundation of the modern view of central bank independence. A close review of the measures and the statistical evidence, however, suggests the empirical foundation is flawed and cannot be realistically used to support the modern view.

Correlations between *De Jure* Measures of Central Bank Independence and Inflation Lack Statistical Robustness: The methodology of measuring central bank independence based on the *de jure* relationship between the central bank and government suggested by Bade and Parkin (1982 and 1988) three decades ago has generated a large number of papers estimating correlations between the measures and inflation. These studies draw strong

[2] A portion of the material in this section is drawn from Cargill (2012).

policy implications about central bank institutional design from the statistical results and are frequently cited to support the conventional view *de jure* independent central banks generate better monetary policy outcomes. The statistical associations are becoming a standard part of textbooks on macro and monetary economics. The measurement literature, however, is problematic.

Setting aside here the issue of whether *de jure* based measures of independence are reliable approximations of *de facto* independence, the measurement literature is problematic at two levels. First, the econometric foundation of estimating simple relationships between inflation and measures of central bank independence in a cross-section-*time*-series context is weak at best. Posen (1998), for example, points out that correlations between central bank independence and inflation may be just the opposite of the conventional wisdom; that is, commitment to price stability may generate independence central banking institutions. The statistical associations are not robust according to Cargill (1995a and 2012), Fujiki (1996), Campillo and Miron (1997), and Oatley (1999).

***De Jure* Measures of Central Bank Independence are Not as Accurate as Alleged:** Cargill (e.g., 1995 and 2012) has made this point several times with respect to the Bank of Japan and the Bank of Korea. Let's consider the Bank of Japan since, unlike the Bank of Korea, the Bank of Japan measure has been part of every statistical study on the relationship between measures of central bank independence and inflation. The Alesina and Summer (1993) measure for the Bank of Japan is 62.5 placing the Bank of Japan as the 4th most independent central bank among the 16 country sample with only Germany (100), Switzerland (100) and the United States (87.5) ranked as more independent. The Alesina and Summer Japan measure is a combination of two other measures, one ranking the Bank of Japan and the Federal Reserve equally and one ranking the Bank of Japan as possessing 50 percent of the independence of the Federal Reserve. Any *de jure* measure of central bank independence that considers the Bank of Japan at least through 1998 as close to the *de jure* ranking of the Federal Reserve is dubious at best. The 1942 Bank of Japan Law remained the operating legal framework for the Bank of Japan until the Bank of Japan Law was revised June 1997. The originating charter of the Bank of Japan in 1882 and the two renewals of the charter in 1912 and 1942 rendered the Bank of Japan as one of the most formally dependent central banks in the world. Article 42 of the 1942 Bank of Japan Law placed the Bank of Japan under the supervision of the Ministry of Finance while Article 43 gave the Ministry of Finance power to order the Bank to undertake any necessary business or to alter the By-Laws as well as other necessary action. The Ministry of Finance could dismiss high level officials at will and changes in the Bank's policy instruments involved meaningful Ministry of Finance involvement.

***De Jure* Measures of Independence are Unreliable Indicators of Monetary Policy Outcomes:** *De jure* independence in many cases is a poor predictor of monetary policy outcomes. The comparative inflation records of Japan and the United States through the 1980s contradict the conventional wisdom independent central banks generate lower inflation rates (Cargill, 1995b). Despite being *de jure* independent (as measured in the literature), the Federal Reserve was responsible for the Great Inflation. In contrast the Bank of Japan as one of the world's most *de jure* dependent central banks achieved an impressive price stability record from 1950 with the start of reindustrialization through the late 1980s. The successful price stabilization policies of the Bank of Japan became widely recognized in the 1980s with some researchers referring to the Bank of Japan as a "model" or "credible" central bank in terms of pursuing price stability (Hutchison, 1987). The Federal Reserve has seldom been referred to in such terms.

One might dismiss the comparative records of the Bank of Japan and the Federal Reserve as special cases and represent only two central banks; however, they are two of the more important central banks of the world and their comparative records for long periods of time are inconsistent with the conventional wisdom that more *de jure* independent central banks generate better price stability records than less *de jure* independent central banks.

***De Jure* Measures of Independence are Unreliable Indicators of *De Facto* Independence:** The *de jure* relationship between the central bank and the government is frequently a misleading indicator of the *de facto* relationship. The distinction between *de jure* and *de facto* independence has long been recognized in the literature; however, Mayer (1976) is credited with being one of the first to point out that formal rules outlined in the central bank's charter at best can only approximate the relationship between the central bank and government; and at worst, can be misleading. The *de jure* relationship as manifested by the central bank charter does not fully capture the informal relationships that exist between the central bank and the government; changes in those informal relationships over time; the nontransparent pressure governments can bring to bear on the central bank; the tendency for the central bank to become preoccupied with maintaining its independence and as a result, become a prisoner of its own independence; or, the shared values between government and the central bank over price stability.

The postwar history of the Bank of Japan and the Federal Reserve indicate how unreliable *de jure* independence and dependence is predicting monetary policy outcomes. The 1942 Bank of Japan Law with some revisions made in 1949 remained the operating document of the Bank until the Bank of Japan Law was revised in 1997. The 1942 Bank of Japan Law rendered the Bank of Japan among the most *de jure* dependent central banks in the world. The Law rendered the Bank of Japan subject to the administration of the Ministry of Finance. However, the Bank of Japan actually achieved a meaningful but difficult to quantify increase in *de facto* independence after 1973 (Cargill, Ito and Hutchison, 1997 and 2000). After the Bank of Japan achieved enhanced *de jure* independence in 1998 it shifted to *de facto* dependence in the first few years of the new century as it came under political pressure to adopt more aggressive monetary ease to reverse the deflation process (Cargill and Sakamoto, 2008 and Dwyer, 2012). The government made it further known privately and publicly that if the Bank of Japan did not adopt more aggressive policy its new found independence would be compromised by a formal inflation target. *De jure* independence did not insulate the Bank from political pressure. The Bank of Japan experienced a decline in *de facto* independence under the Koizumi administration.

The supposed high level of *de jure* independence of the Federal Reserve as an indicator of *de facto* independence is an even more dubious assumption based on the recent history of the Federal Reserve provided by Meltzer. Meltzer's history presents convincing evidence the Federal Reserve on several occasions abdicated its *de facto* independence to accommodate the government. The *de jure* independence of the Federal Reserve grossly overstates its *de facto* independence and its *de facto* independence has varied considerably. The "independence within government" perspective of Martin was at best an oxymoron and represented a willingness of the Federal Reserve to accommodate fiscal policy in the 1960s that was continued under Burns; in fact, reading Burns' diary one is struck by the frequency with which he viewed himself as government team player.

The Federal Reserve regained its *de facto* independence under Paul Volcker in 1979 and continued to function more or less as a *de facto* independent central bank through the end of Greenspan's tenure as Chair in 2006; however, this was only possible because of the political commitment to support price stability. That changed under Bernanke. As part of QE1 starting late 2008 and into 2009 the Federal Reserve's assets shifted to include almost $1 trillion in mortgage backed securities. The recently announced QEP3 amplifies the Federal Reserve's industrial policy by committing to purchase $40 billion in mortgage back bonds each month. How can any central bank seriously claim to be independent when it is supporting the mortgage market to such a degree in the context of a political system that supports the housing sector?

De facto independence is largely conditioned by the political environment and has varied considerably over the history of the Bank of Japan and the Federal Reserve. The index literature gives passing reference to the difference between *de facto* and *de jure* independence, but ignores the difference in the statistical results and strong conclusions offered in studies like Alesina and Summers or Carlstrom and Fuerst. Meltzer's history of the Federal Reserve represents a serious challenge to the entire index literature based on *de jure* measures of independence (Cargill, 2011).

Existing Measures of *De Facto* Independence are of Limited Use in Estimating Correlations between Inflation and Central Bank Independence: The majority of the statistical correlations have been based on the flawed *de jure* approach to measuring central bank independence. Cukierman (1992) and Cukierman, Webb and Neyapti (1992) were among the small number of researchers to statistically deal with the difference between *de jure* and *de facto* independence. They used the turnover rate of central bank leadership as a proxy for *de facto* independence; however, this is not a suitable proxy because low turnover rates may imply acquiescence to the government and high turnover rates may be due to unrelated factors such as scandals like those that occurred at the Bank of Japan in 1998. They also developed a *de facto* independence measure based on a survey of monetary policy specialists in 23 countries; however, the survey responses are subjective, the survey results are subject to small sample size problems and the resulting measures of independence for limited time periods.

Fry et al. (2000) provide more comprehensive and consistent *de facto* measures of independence. The Fry et al. measures are based on the central banks' assessment of their independence expressed in responses to a Bank of England survey of 114 central banks starting September 1998 and lasting over a year (Fry et al., 2000, Appendix 2 and 3). The measures of independence rely on the central bank's interpretation of its independence for a specific period of time. Fry et al. based their measures of independence for 92 central banks (Fry et al., 2000, Table A.1) on the survey results.

The Cukierman et al. and Fry et al. *de facto* measures are based on a better methodology to measuring central bank independence than *de jure* measures; however, they possess two problems that make them unsuitable for establishing statistical relationships between central bank independence and inflation. First, by their nature they are sensitive to the respondents included in the sample; for example, asking central bankers to rate the independence of their own or other central banks is likely to include measurement bias. Second, even if they represent a reasonable measure of *de facto* independence for the sample period, they cannot be used in the typical regressions estimated in the measurement literature. That is, one cannot use a *de facto* measure limited by the period of time for countries over long periods of time such as attempted by Carlstrom and Fuerst (2009).

Hence, there are no obvious statistical resolutions to adjusting a *de jure* measure to account for *de facto* independence such as turnover rates of central bank leadership or using some set of instruments because the *de jure* measures of independence are inherently flawed. The survey based *de facto* measures are limited because of sample bias and the fact they pertain to a relative short period of time. In this paper, we have argued that the entire approach to measuring central bank independence and estimating correlations between the measures and inflation is misdirected and has provided a false impression of the relationship between *de jure* independence and monetary policy outcomes.

8: Concluding Comments

Campillo and Miron (1997); Cargill (1989, 1995a, 1995b and 2012), Fujiki (1996); Oatley (1999); and, Posen (1998) are among a small group critical of the modern view of central bank independence, especially the widely accepted correlations between measures of central bank independence and inflation. Cargill (2012), in particular, argues the literature has conflated *de facto* and *de jure* independence, and, from a *de jure* perspective, misidentified the degree of independence. *De facto* independence changes over the sample periods and as such, the use of indices that are constant over long periods of time lack empirical power. In fact, one is struck by the fact that while the technical level of econometrics applied to monetary economics has advanced greatly, the modern view continues to rely on simple regressions between flawed measures of independence and inflation to support the institutional design of one of the most important institutions capable of contributing to stable and sustained economic growth.

In this paper, we further examine the issue of central bank independence by focusing on *de facto* Federal Reserve independence over its history relying on the excellent history provided by Meltzer and extended to include material drawn from the diary of Burns and the recent actions of the Bernanke Federal Reserve.[3] The Federal Reserve has never been *de jure* independent from a strict legal perspective and the profession should reconsider just what is meant by independence and what can be expected from different degrees of it.

The Federal Reserve was appropriately constrained by fiscal dominance in both great wars. It was independent under the modified gold standard in the 1920s because of a rule. It gained operational independence after the 1951 Accord, but lost that independence starting with Martin in the early 1960s and especially Burns in the 1970s. Volcker and Greenspan

[3] Cargill (2011) reviews Meltzer's history.

reestablished *de facto* independence in terms of focusing on price stability with an implicit adoption of the Taylor Rule. It has surely lost any meaningful independence under Bernanke.

At no time has the Federal Reserve or any central bank been entirely free of political pressure. Sometimes, it seeks the protection of one branch of government to shield it from pressure by another. That happened under Volcker and Reagan. It thus makes itself more dependent in one sense, in order to preserve its independence in another and, as a result, there is no possibility of uniquely categorizing the Federal Reserve as independent or dependent over a period as comparatively short as the post-Accord era. Any measure of independence must be time- and personality-dependent, but such a time variant measure is not readily apparent. The Martin Federal Reserve; the Burns Federal Reserve and the Volcker Federal Reserve were different institutions. Even the Greenspan and Bernanke Federal Reserve must be distinguished.

Indeed, this reality gives credence to Milton Friedman's condemnation of the idea of an independent central bank. He noted that the system inevitably makes "important policy actions highly dependent on accidents of personality," a point we have tried to document. Friedman further argued that: "Any system which gives so much power and so much discretion to a few men that mistakes – excusable or not – can have such far-reaching effects is a bad system" (Friedman 1962: 50).

In the 50 years since Friedman offered that judgment, many researchers believe that he was proved wrong by what was viewed as the superior performance of independent central banks. The problem is that the empirical literature often attributes good performance to central banks that were not independent in fact, and vice-versa. The years in which the Federal Reserve might be said to have operated independently are comparatively few in number and certainly do not encompass the entire post-Accord era. The idea that the Federal Reserve was independent in any coherent or consistent sense over the entire post-Accord era is myth. We suggest further this view applies to central banks in general.

References

Alesina, Alberto and Lawrence H. Summers (1993). "Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence". *Journal of Money, Credit and Banking*, 25 (May): 151-162.

Bade, Robin and Michael Parkin (1982). "Central Bank Laws and Monetary Policy". University of Western Ontario, Unpublished Manuscript.

Bade, Robin and Michael Parkin (1988). "Central Bank Laws and Monetary Policy". University of Western Ontario, Unpublished Manuscript, http://economics.uwo.ca/faculty/parkin/, October.

Blinder, Alan S. (1998) *Central Banking in Theory and Practice*. Cambridge, MA: The MIT Press.

Buchanan, James M. and Richard E. Wagner (1977) *Democracy in Deficit: The Political Legacy of Lord Keynes.* New York: Academic Press.

Campillo, Marta and Jeffrey A. Miron (1997). "Why does Inflation Diverge across Countries". In Christina D. Romer and David H. Romer (eds), *Reducing Inflation: Motivation and Strategy*. University of Chicago Press: Chicago.

Cargill, Thomas F (1989). *Central Bank Independence and Regulatory Responsibilities: The Bank of Japan and the Federal Reserve*. Salomon Brothers Center for the Study of Financial Institutions. New York: New York University.

Cargill, Thomas F (1995a). "The Statistical Association between Central Bank Independence and Inflation". *Banca Nazionale del Lavoro Quarterly Review*, (June): 159-172.

Cargill, Thomas F (1995b). "The Bank of Japan and Federal Reserve: An Essay on Central Bank Independence". In Kevin D. Hoover and Steven M. Sheffrin (eds), *Monetarism and the Methodology of Economics: Essays in Honour of Thomas Mayer*. Edward Elgar Publishing Co.: England.

Cargill, Thomas F (2011). "Meltzer's History of the Federal Reserve: A Review Essay". *International Finance*, 14: 183-207.

Cargill, Thomas F. (2012) "A Critical Assessment of Measures of Central Bank Independence." *Economic Inquiry*. Online version published January 12, 2012 with journal version forthcoming.

Cargill, Thomas F., Takatoshi Ito and Michael M. Hutchison (1997). *The Political Economy of Japanese Monetary Policy*. The MIT Press: Cambridge, MA.

Cargill, Thomas F., Takatoshi Ito and Michael M. Hutchison (2000). *Financial Policy and Central Banking in Japan*. The MIT Press: Cambridge, MA.

Cargill, Thomas F. and Takayuki Sakamoto (2008). *Japan Since 1980*. Cambridge University Press: New York.

Carlstrom, Charles T. and Timothy S. Fuerst (2009). "Central Bank Independence and Inflation: A Note". *Economic Inquiry*, 47 (January): 182-186.

Cukierman, A. S (1992). Central Bank Strategy, Credibility, and Independence: Theory and Evidence. The MIT Press: Cambridge, MA.

Cukierman, A., S. Webb, and B. Neyapti (1992). "Measuring The Independence of Central Banks and It's Effect on Policy Outcomes". *World Bank Economic* Review, 6(3): 353–98.

Dwyer, Jennifer Holt (2012). "Explaining the Politicization of Monetary Policy in Japan". *Social Science Japan Journal*. 15(Summer): 179-200.

Economist (1998) "William Martin" obituary, August 6.

Ferguson, Niall (2009) *The Ascent of Money.* New York: Penguin Books.

Ferrell, Robert H., ed. (2010) *Inside the Nixon Administration: The Secret Diary of Arthur Burns, 1969-1974.* University Press of Kansas.

Friedman, Milton (1961) "The Lag in Effect of Monetary Policy." *The Journal of Political Economy* 69 (October): reprinted in Friedman (1969): 237-60.

Friedman, Milton (1962) *Capitalism and Freedom.* Chicago and London: University of Chicago Press.

Friedman, Milton (1968) "The Role of Monetary Policy." *The American Economic Review* 58 (March); reprinted in Friedman (1969): 95-110.

Friedman, Milton (1969) *The Optimum Quantity of Money and Other Essays.* Chicago: Aldine.

Friedman, Milton and Anna J. Schwartz. (1963) *A Monetary History of the United States, 1867-1960.* Princeton: Princeton University Press.

Fry, M., D. Julius, L. Mahadeva, S. Roger, and G. Sterne (2000). "Key Issues in the Choice of Monetary Policy Framework". In L. Mahadeva and G. Sterne (eds), *Monetary Policy Frameworks in a Global Context,* Routledge: London.

Fujiki, Hiroshi (1996). "Central Bank Independence Indexes in Economic Analysis: A Reappraisal". *Monetary and Economic Studies*, (December): 80-101.

Hutchison, Michael (1987). “A Model Central Bank?” *FRBSF Weekly Letter*, Federal Reserve Bank of San Francisco, April 3.

Kolko, Gabriel (1963) *The Triumph of Conservatism.* New York: The Free Press of Glencoe, 1963.

Lacker, Jeffrey M. (2012) “Understanding the Interventionist Impulse of the Modern Central Bank.” *Cato Journal* 32 (Spring/Summer): 247-53.

Mayer, Thomas (1976). “Structure and Operations of the Federal Reserve System: Some Needed Reforms.” In *Compendium of Papers Prepared for the Financial Institutions and the Nation's Economy Study*. Committee on Banking, Currency and Housing, 94th Congress, Second Session, GPO, Washington, June.

Mayer, Thomas (ed., 1990). *Political Economy of Monetary Policy*, Cambridge: Cambridge University Press.

Meltzer, Allan H. (2003) *A History of the Federal Reserve, Volume 1: 1913 – 1951*. Chicago University of Chicago Press.

Meltzer, Allan H. (2009) *A History of the Federal Reserve, Volume 2: 1951 – 1986*. Chicago: University of Chicago Press.

Meltzer, Allan H. (2012) “What's Wrong With the Federal Reserve?” *Wall Street Journal*, July 9, A13.

New York Times (2010) Times Topics: Alan Greenspan, April 7.

Oatley T (1999). “Central Bank Independence and Inflation: Corporatism, Partisanship, and Alternative Indices of Central Bank Independence”. *Public Choice*, 98: 399-13.

O'Driscoll, Gerald P., Jr. (2009) “Money and the Present Crisis.” *Cato Journal* 29 (Winter): 167-86.

O'Driscoll, Gerald P., Jr. (2012) “Central Banks: Reform or Abolish?” Unpublished manuscript, January 15.

Office of Management and Budget, www.whitehouse.gov/omb/budget/Historicals, accessed 6/29/12.

Plosser, Charles I (2011). “The Scope and Responsibilities of Monetary Policy”, GIC 2011 Global Conference Series Presentation, The Central Bank of Chile, Santiago, Chile, January 17.

Pollock, Robert L. (2012) “Memo to Romney: Expand the Pie.” The Weekend Interview with George Shultz. *Wall Street Journal*, July 14-15, A11.

Posen, Adam (1998). "Do Better Institutions Make Better Policy?" *International Finance*, 1 (October): 173-205.

Ricardo, David (1951) *The Works and Correspondence of David Ricardo,* Volume I: *On the Principles of Political Economy and Taxation.* Cambridge: Cambridge University Press.

Rockoff, Hugh (1990) "The 'Wizard of Oz' as a Monetary Allegory." *Journal of Political Economy*, 98: (August), pp. 139-170.

Rothbard, Murray N. (1962) *The Panic of 1819: Reactions and Policies.* New York: Columbia University Press.

Salsman, Richard M. (1993) "Bankers as Scapegoats for Government Created Banking Crises in U.S. History." In Lawrence H. White, ed., *The Crisis in American Banking.* New York and London: New York University Press, pp. 81-118.

Santoni, G. J. (1986) "The Employment Act of 1946: Some History Notes." Federal Reserve Bank of St. Louis *Review.* (November 1986): 5-16.

Schuler, Kurt (1996) *Should Developing Countries Have Central Banks?* London: Institute of Economic Affairs.

Schwartz, Anna J. (2009) "Origins of the Financial Market crisis of 2008." *Cato Journal* 29 (Winter): 19-23.

Selgin, George and Lawrence H. White (1999) "A Fiscal Theory of Government's Role in Money." *Economic Inquiry* 37 (January): 154-65.

Selgin, George, William D. Lastrapes and Lawrence H. White (2010) "Has the Fed Been a Failure?" *Journal of Macroeconomics* 34 (September 0212): 569-96.

Smith, Vera C. (1990; 1936) *The Rationale of Central Banking and the Free Banking Alternative.* Indianapolis: Liberty Press.

Steil, Benn and Manuel Hinds (2009) *Money, Markets and Sovereignty.* New Haven and London: Yale University Press.

Taylor, John B. (2009) *Getting Off Track.* Stanford: Hoover Institution Press.

Temin, Peter (1969) *The Jacksonian Economy*. New York: W.W. Norton.

White, Lawrence H. (1989) *Competition and Currency: Essays on Free Banking and Money.* New York and London: New York University Press.