# Monetary Policy and the Quest for Robust Political Economy<sup>1</sup>

Peter J. Boettke<sup>†</sup> Daniel J. Smith<sup>‡</sup>

## Abstract

The economics profession not only failed to predict the recent financial crisis; it has been struggling in its aftermath to reach a consensus on the cause(s) of the crisis. While competing narratives are being offered and evaluated, the narrow scope of the debate on the strictly technical aspects of monetary policy that have contributed to and prolonged the crisis has precluded the broader examination of questions of political economy that may prove to be of greater import. Attempting to find the technically optimal policy is futile when the Federal Reserve's independence is undermined by the political influences of contemporary democracy. Nobel Laureates F.A. Hayek, Milton Friedman, and James Buchanan each sought ways to constrain and protect a monetary authority from political pressures in their research. Each one ended up rejecting the possibility of doing so without a fundamental restructuring of our monetary regime. Hayek turned to denationalization, Buchanan to constitutionalism, and Friedman to binding rules. We incorporate their experiences to make a case for applying the concepts of robust political economy to the Federal Reserve. Robust political economy calls for relaxing idealized assumptions in order to seek out institutional regimes that can overcome both the epistemic and motivational hurdles that characterize contemporary democratic settings.

JEL Codes: E58, E61, P16, P26

*Key Words:* financial crisis, Federal Reserve, monetary policy, robust political economy, central bank independence

<sup>&</sup>lt;sup>1</sup> The authors would like to thank Christopher Coyne, Thomas Duncan, Thomas Hogan, Steve Horwitz, George Selgin, Scott Sumner, Lawrence White, and the attendees of the 2010 Southern Economic Association Annual Meeting Session "Are There Public Choice Problems with Nominal Income Targeting?" for helpful comments on earlier drafts of this paper. They both gratefully acknowledge generous research support from the Mercatus Center at George Mason University. Daniel Smith would also like to acknowledge generous summer research support from the Manuel H. Johnson Center for Political Economy. We also thank John Onadeko for valuable research assistance.

<sup>&</sup>lt;sup>†</sup>Address: Department of Economics, Mercatus Center at George Mason University, Email: PBoettke@GMU.edu.

<sup>&</sup>lt;sup>‡</sup>Address: Manuel H. Johnson Center for Political Economy at Troy University, Email: DJSmith@Troy.edu.

"'Economic policy' is not something neatly separated from political, social and other kinds of policy. And the positions held by other officials, agencies, and pressure groups often unfortunately preclude even serious attention to careful analyses made by professional economists...Monetary policy is made by human beings, often not very 'expert' ones, in human situations and as a part of a complex, operating government...it is surely a mistake to neglect completely this practical side of economic policy-making" -George L. Bach, 1950, vii

"To shy away from consideration of the politically feasible has been deemed an admirable trait, but to refuse to examine the politically possible is incomplete scholarship." -James M. Buchanan, 1962, 28

"As persons, both from the streets and the ivory towers, observe modern governmental failures, they can scarcely fail to be turned off by those constructions which require beneficent wisdom on the part of political man. And they can hardly place much credence in the economist consultant whose policy guidelines apply only within institutions that embody such wisdom." -James M. Buchanan, 1975, 229

-James M. Buchanan, 1975, 225

#### 1 Introduction

The recent financial crisis caught the economics profession off-guard, with no consensual explanation for the financial crisis. Old hypotheses are being revived, and a few new ones advanced, but even several years after the initial onset of the financial crisis, the profession is still struggling to come to a consensus on the cause(s) of crisis; let alone come to a consensus on what alternative courses of action could have been taken by monetary authorities to prevent it. It's hard not to accept the same sentiments that Hayek (1974) expressed in his Nobel Prize Lecture, "[w]e have indeed at the moment little cause for pride: As a profession we have made a mess of things."<sup>2</sup>

Monetary theorists have devoted a considerable amount of their scholarly attention to examining the technical role of monetary policy in the financial crisis, as well as examining the

<sup>&</sup>lt;sup>2</sup> See also Krugman (2009b) who expresses similar sentiments.

propriety of the chosen monetary policy measures taken in the wake of the financial crisis (see, for example: Adrian et al. 2011; Ait-Sahalia et al. 2010; Ball 2012; Bean 2009; Bernanke 2010; Blanchard et al (2010); Bordo and Landon-Lane 2010; Cecchetti 2008; Claessens 2011; Clarida 2012; Cochrane 2011; Hatzius et al. 2010; Gagnon et al. 2011; Goldberg, Kennedy, and Miu 2011; Gorton and Metrick 2012; Krugman 2009[1999]; Kotlikoff 2010; Mankiw and Weinzierl 2011; Mishkin 2011a & 2011b; Posner 2009; Pozsar et al. 2010; Schularick and Taylor 2011; Sumner et al. 2009; Svensson 2012; Taylor 2009; Woodford 2012; Yellen 2011). These technical debates are certainly vital to sort out, especially with the reemergence of old debates on the efficacy of Keynesian remedies (Bateman et al. 2010; Boettke, Smith, & Snow 2011; Eatwell and Milgate 2011; Krugman 2009; Posner 2009; Skidelsky 2009), which require monetary accommodation. Yet, with the debate so intently focused on calculating the technical specificities of what monetary authorities did or did not do correctly, the profession is missing the insights that a broader perspective of political economy could bring.

Even if economists do find the technically optimal solution,<sup>3</sup> past adherence of the

Federal Reserve to what was considered at the time to be the optimal policy, strongly suggests that what is considered technically optimal is oftentimes in conflict with what is politically optimal (Selgin, Lastrapes and White 2010; Taylor 2009; Weintraub 1978). In a contemporary democratic setting, when politicians are dependent upon the short term state of the economy to bolster their re-election chances, the politically optimal will supersede the technically optimal and the Federal Reserve will engage in monetary mischief (Friedman 1994).

Friedman (1947, 415), in his review of Abba Lerner's Economics of Control, criticized

the strictly technical focus of Lerner's general economic approach,

...Lerner writes as if it were possible to base conclusions about appropriate institutional arrangements almost exclusively on analysis of the formal conditions for an optimum. Unfortunately, this cannot be done. It has been long known that there are alternative institutional arrangements that would enable the formal conditions for an optimum to be attained.

<sup>&</sup>lt;sup>3</sup> We hold strong doubts that an operational technical optima, necessarily extrapolated from historical episodes with idiosyncratic circumstances, can be found outside a free banking regime (Johnson and Keleher 1996, Chapters 2 & 3; Selgin and White 1994; Taleb 2010). For example, Axilrod (2011, 31) argued that even the relatively straightforward Taylor rule requires "...knowledge of, for instance, the present state of the economy in relation to its potential as well as an empirical counterpart to the concept of the neutral short-term rate of interest adjusted for inflation, both of which are uncertain and often subject to considerable revision. It also assumes that the Fed has clear specific long-run inflation objects. And it further presumes that the economy will react to policy changes today as it did in the past, in my opinion always a dubious assumption in light of attitudinal and structural shifts over time that almost never fail to alter the how and why of business or consumer decision making." And in recounting from his experiences at the Federal Reserve Axilrod (2011, 205) states, "[t]echnical expertise is needed area by area throughout the Fed system, but given the institution's key role within the financial system and our society, individuals with a broad capacity for judgment are also required, especially for top leadership. Particularly for monetary policy...judgments have to be made about such matters as timing of actions, the psychology and underlying conditions of the market participants and counterparties, and how far the boundaries of conventional thinking influenced by prevailing economic, social, and political norms can, and in practice, should be stretched in light of changing circumstances...Doubtless, such ideal-type people are difficult to find given the waywardness of the political process in the Congress, the potential for insular attitudes within reserve banks and their boards, and the undoubted fact that the Fed Chairman's job tends to put all others in the shade. During his tenure as Chairman of the Federal Reserve Paul Volcker expressed a similar sentiment, "[w]hat seems technically right isn't right if the psychology is running in the opposite direction and it makes no impact." Romer (1989) explained monetary policy as a mixture of "...formal models, rules of thumb, shrewd observation, instinct, guesswork, and prayer." William Martin stressed that FOMC policies "... are not subject to exact scientific determination but ... remain a matter ... on which judgments may differ...I am stressing the limits of our knowledge in order to explain why central banking remains an art rather than a science" (as quoted in Timberlake 344). Also see Lombra and Karamouzis (1993), Reifschneider et al. (1997), and Taleb (2007).

To really understand how a public policy will manifest itself in practical implementation, in addition to the technical formulations, a broader perspective of political economy is necessary to understand the environment in which those technical formulas will be carried out (Mayer (1993, 1). We have found increasingly sophisticated ways to zero in on the optimal monetary policy course, but somehow we have forgotten to include some of the most basic principles of economics – that incentives matter and that institutions that structure our incentives and the flow of information matter – into our prescriptions (Willett and Keen 1993, 14). While the political economy costs are often acknowledged, or at least admitted, in technical expositions, they are oftentimes not being fully absorbed into the current analyses of the crisis and our monetary regimes. From the start it is assumed that the authorities at the Federal Reserve are independent of political influences and have the motivational incentives and epistemic wherewithal necessary to achieve the goals entrusted to it, as long as economists hand them the right theories to work with. From there, the debate focuses exclusively on which theory is the optimal theory for the Federal Reserve to work off of. As Kane (1980) explains it,

[t]his utopian conception of Federal Reserve intentions and tactics is carefully nurtured in Federal Reserve publications and official statements. Federal Reserve leaders depict themselves as waiting in anguish for the economics profession finally to develop an adequate model of how monetary policy truly works.

Robust political economy, on the other hand, theoretically denies politicians and bureaucrats the unrealistic assumptions of omniscience and benevolence. In other words, a robust political economy perspective holds that government solutions should not be assumed operational just because a technically optimal solution *may* be found. If a technically optimal solution is found, it will necessarily be implemented in a contemporary democratic setting, run by politically influenced and epistemically limited men, not inexistent infallibles. Monetary solutions ought to

involve institutions designed robustly for a real erring man as he is, not as we would hope him to

be.

The attempt to structure governmental institutions incorporating this idea of robust

political economy traces all the way back to the establishment of political economy.<sup>4</sup> As Hume

(1987, 13) described it,

...in contriving any system of government, and fixing the several checks and controuls [sic] of the constitution, every man ought to be supposed a knave, and to have no other end, in all his actions, than private interest.

F. A. Hayek (1948, 11), in describing Adam Smith's research program wrote,

...the main point about which there can be little doubt is that Smith's chief concern was not so much with what man might occasionally achieve when he was at his best but that he should have as little opportunity as possible to do harm when he was at his worst. It would scarcely be too much to claim that the main merit of the individualism which he and his contemporaries advocated is that is a system under which bad men can do least harm. It is a social system which does not depend for its functioning on our finding good men for running it, or on all men becoming better than they now are, but which makes use of men in all their given variety and complexity, sometimes good and sometimes bad, sometimes intelligent and more often stupid.

Many of these age-old lessons have been incorporated, or at least acknowledged, in many fields

of research in contemporary political economy. It is widely accepted that politicians are self-

interested (Brunner 1972; Brunner and Meckling 1977; Buchanan 1999, 45-59 & 2000; Mueller

1976), use policy to bolster their reelection bids (Alt and Crystal 1983; Alesina and Sachs 1988;

Ellis and Thoma1995; Haynes and Stone 1988; Kramer 1971; Nordhaus 1975; Pack 1987; Tufte

<sup>&</sup>lt;sup>4</sup> The establishment of the United States of America can be considered one of the first experiments in the application of robust political economy. Madison (2001[1788], 268) in The Federal Papers No. 51 wrote,

It may be a reflection on human nature, that such devices should be necessary to control the abuses of government. But what is government itself, but the greatest of all reflections on human nature? If men were angels, no government would be necessary. If angels were to govern men, neither external nor internal controls on government would be necessary. In framing a government which is to be administered by men over men, the great difficulty lies in this: you must first enable the government to control the governed; and in the next place oblige it to control itself...experience has taught mankind the necessity of auxiliary precautions.

1975; Wagner 1977; Willett 1988), manage to find creative ways to exert significant control over supposedly independent or discretionary bureaucracies and commissions (Edelman 1952; Holden 1966; Long 1949; Lupia and McCubbins 1994; McCubbins and Page 1986; McCubbins and Schwartz 1985; Moe 1982; Rourke 1984; Tullock 2005; Weingast 1984; Weingast and Marshall 1988; Weingast and Moran 1983; Woll 1977; Wood and Waterman 1991), and create regulatory agencies and bureaucracies that are readily captured by special interest groups (Becker 1986; Buchanan, Tollison, and Tullock 1980; Djankov et al. 2002; De Soto 1990; McChesney 1987; Peltzman 1976, Shleifer and Vishny 1998; Stigler 1971; Tullock 1967). Furthermore, during times of crisis, these channels of influence are often exerted by politicians to fundamentally restructure, cajole, or expand bureaucratic agencies and public policy (Roberts 2010b, 51; Higgs 1987, 139; Meltzer 2003, 92).

Yet, while these age-old lessons are common place in contemporary political economy, monetary economists have been reluctant to incorporate these important political considerations into their technical debates. Nor have they been incorporated into the design of the Federal Reserve or the tasks we assign to it. As Mayer (1993a, 2) observed in regards to monetary economics,

There is now a tradition in economics of treating practical problems the following way: Those components that can be analyzed rigorously...are given painstakingly and rigorous attention, but the other components are more or less dismissed by arm-waving. It seems as though the familiar principle that a chain is no stronger than its weakest link is turned upside down, as though it were more important to strengthen further the already strong parts of an argument rather than its weaker parts.

This means that our monetary system has been, and will continue being, prone to any real-world digressions away from the ideal assumptions of our technical models, no matter how calibrated

the models we hand the Federal Reserve. In the terminology of Taleb (2010a & 2010b), we have a fragile system highly susceptible not just to black swans, but to basic deviations away from idealized humans.

Unrealistic assumptions of omniscience and benevolence on the part of the Federal Reserve authorities render technical optimums nonoperational – largely due to the Federal Reserve's lack of independence from political authorities. This is especially concerning for an institution that Paul Samuelson in 1980 called "...the most important factor in the making of macroeconomic policy" (as quoted in Kettl 1986, 1). Perhaps the failure to incorporate these lessons is, in part, attributed to the alleged independence of the Federal Reserve.

Federal Reserve independence was considered necessary in order to shield monetary policy from the haphazard and electorally focused influence of politicians (Kettl 1986, 3; Morris 2002, 4). It was recognized at the creation of the Federal Reserve that politicians would likely exert pressure on the Federal Reserve to accommodate their re-election bid fiscal spurts with accommodating monetary policy if the Federal Reserve was not granted independence. With that in mind, the structure of the Federal Reserve was designed to turn monetary policy over to a "small group of people selected so as to balance the interests for and against inflation" (Faust 1996, 268). Unfortunately, while economists at the creation of the Federal Reserve were well aware of the need to create an apolitical Federal Reserve, their belief that they had in fact accomplished this task almost entirely excluded the analysis of political factors in determining optimal monetary policy. As Morris (2002, 4) argues,

[a]s long as different policy choices generate outcomes that are differentially preferred and these outcomes occur in a policy area that the public considers significant, then policy choices have political implications. Although Fed policy-making has always been political, students of the Fed were not always sensitive to

this fact. Because of the institution's ostensible independence, the politics of monetary policy-making were trivialized – or completely ignored – for decades.

Rather than building an institutional structure fragile to the motivational and epistemic shortcomings of man, robust political economy applies a consistent behavioral assumption to both economic man and political man, one that accounts for his self-interest, short-sightedness and knavery (Boettke and Leeson 2004; Leeson and Subrick 2006; Pennington 2011). Friedman, (2002[1962], 50) calls for the inclusion of the concepts of robust political economy into our

monetary structures,

It may be that these mistakes were excusable on the basis of the knowledge available to men at the time – though I happen to think not. But that is really beside the point. 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. It is a bad system to believers in freedom just because it gives a few men such power without any effective check by the body politic – this is the key political argument against an 'independent' central bank. But it is a bad system even to those who set security higher than freedom. Mistakes, excusable or not, cannot be avoided in a system which disperses responsibility yet gives a few men great power, and which thereby makes important policy actions highly dependent on accidents of personality. This is the key technical argument against an 'independent' bank. To paraphrase Clemenceau, money is much too serious a matter to be left to the Central Bankers.

In other words, applying robust political economy to our monetary structure would require monetary institutions that are designed robustly for the real erring man, not designed fragilely for the nonexistent idealized man. Robust political economy would force technical debates to account for the distortion of incentives, the lack of information, and the costs of administration faced by our monetary authorities.

Ignoring these factors in our strictly technical debates can have steep consequences. If channels of political influence can be used to pressure monetary authorities to engage in accommodative monetary policy, than the Federal Reserve fails to be independent of the Federal Government. With a debt accommodation policy the Federal Reserve spurs inflation by purchasing securities that the Treasury issues to finance the deficit by retiring old bond issues through FOMC operations in order to allow the Federal Government to engage in deficit spending (Timberlake 1993, 345).<sup>5</sup>

This could lead us to the situation that Adam Smith warned about in Book 5 of the Wealth of Nations. Smith (1981[1776], 930) argued that once a government's debt has accumulated to a certain extent, the chances of it actually being paid off become increasingly smaller because governments will avoid politically unpopular solutions such as cutting spending or raising taxes. Instead, governments will resort to 'juggling tricks' to attempt to push their debt problems into the future. Historically, one of the favored and pernicious 'tricks' employed by governments to stave off the problems of debt into the future is through currency inflation (Beaulier and Boettke 2011).

While Nobel Laureates F.A. Hayek, Milton Friedman, and James Buchanan are often seen as clashing vociferously on issues in economics despite their ideological kinship, at the beginning of their careers each one believed that the Federal Reserve was not only necessary, but that it could remain independent of political pressures and avoid getting caught up in the juggler's tricks. While they each advocated separate versions of a monetary rule within a central bank regime at the beginning of their careers, each one ended up abandoning their faith in the ability to maintain the independence of monetary authorities. Instead, later on in their careers, each one sought to find ways to stop the juggler from juggling. Milton Friedman, by tying the hands of the juggler with binding rules on the monetary authority; James Buchanan by outlawing

<sup>&</sup>lt;sup>5</sup> Retiring old debt issuances keeps the interest rate lower for new debt issuances by injecting more money into the economy.

juggling outright, through constitutionalization of monetary rules; and F.A. Hayek by taking the balls out of the juggler's hands, through the denationalization of the monetary system.

In the 20<sup>th</sup> century, three economists recognized for their awareness of the motivational and epistemic hurdles faced by government actors, and for their consistent application of the precepts of robust political economy, failed to apply it to our monetary institutions. Nobel Laureates F.A. Hayek, Milton Friedman, and James M. Buchanan each engaged in the current technical debates regarding the optimal course of monetary policy at the beginning of their respective scholarly careers. Each, after engaging in scholarly endeavors to find the optimal monetary policy, grew frustrated observing the political influences exerted on the Federal Reserve and near the end of their scholarly careers rejected the futile attempt to find the optimal monetary policy and sought ways to radical restructure our monetary institutions to overcome motivational and epistemic hurdles.

In Section 2 we examine the Federal Reserve's record of independence from political influences, concluding that even under the most optimistic readings of the evidence, the independence of the Federal Reserve has been comprised on enough occasions to warrant the inclusion of political economy considerations into our technical models. A more sincere reading of the evidence forces one to wonder if the Federal Reserve has ever been independent of political influences, especially during times of economic catastrophe when independence is needed the most. We trace these breeches of independence to executive, legislative, and special interest group pressures, as well as to the unique influence that the Federal Reserve has on the economics profession. Section 3 traces out the intellectual evolution of the ideas of F.A. Hayek's, Milton Friedman, and James Buchanan on the Federal Reserve and their respective realization of

the necessity of including the insights of political economy into our monetary regimes. Section 4 examines how robust political economy can be incorporated into our monetary policy, through professional humility, creative thinking, and an emphasis on the politically possible, not the politically feasible. Section 5 concludes.

#### 2 F.A. Hayek: From Monetary Nationalism to Denationalization of Money

It may come as a surprise to those familiar with Hayek's work that Hayek carefully stressed the need for a central bank in his early works. Hayek (1978[1960], 324) argued that we could not rely on the spontaneous forces of the market to supply a reliable means of exchange,

[i]t is important to be clear at the outset that this is not only politically impracticable today but would probably be undesirable if it were possible.

In a footnote, Hayek (1978[1960], 520) explained his position, stating that he was convinced that a central bank was necessary, though he was also doubtful whether it was desirable or necessary for there to be a government monopoly on note issue. Hayek (1978[1960], 325) referred to money as a sort of a 'loose joint' in an otherwise self-adjusting market economy, one that if it was not correct, could interfere with the entire self-adjustment process of the market, rendering a central bank necessary. He provided three reasons for this view. First, he held that disruptions in the supply of money were far more harmful to the economy than disruptions in other commodities. Changes in the supply of money cause ripples that gradually expand throughout the economy, altering relative prices, thus Hayek argued, a monetary authority was necessary for stability.

Second, Hayek felt that a central bank was necessary because the supply of money was closely related to credit. For Hayek, a central bank was necessary to avoid recurring fluctuations by supplying or restricting credit when the spontaneous fluctuations of the market caused either an oversupply or undersupply of credit. Hayek believed, at that time, that this was a function that could not be carried out by market forces.

Third, Hayek believed a central bank was necessary because of the magnitude of government expenditures in relation to national income. While he held that the high level of government expenditure was undesirable, Hayek felt a central bank was necessary if it did exist. While Hayek argued that it would be desirable to divorce monetary institutions as much as possible from fiscal policy financing, under these conditions of high government expenditures, relative to national income, Hayek held that monetary policy needed to be coordinated with the financing of fiscal policies.

Hayek (1976a) showed a growing disillusionment over the ability of government to manage monetary affairs with the publication of *Choice in Currency*, an essay based off a speech he had delivered at the Geneva Gold and Monetary Conference,

I do not want to question that a very intelligent and wholly independent national or international monetary authority might do better than an international gold standard, or any other sort of automatic system. But I see not the slightest hope that any government, or any institution subject to political pressure, will ever be able to act in such a manner.

Hayek went on, "...money is certainly too dangerous an instrument to leave to the fortuitous expediency of politicians – or, it seems, economists." Hayek (1976b) followed up this lecture with a more in depth publication, the *Denationalisation of Money*. In it, Hayek explores the theoretical possibility and political feasibility of eliminating government's monopoly on note issue due to his frustration with government's monopoly on currency invariably leading to inflation, economic instability, undisciplined fiscal profligacy and economic nationalism.

Hayek now held that in a contemporary democratic setting, characterized by special interest groups, there will always be some group clamoring for inflationary measures that will benefit them in the short-term. Politicians, thinking not about the long-run consequences of their policies, but their next election, have the incentive to pursue inflationary policies, even if they are at odds with the general interest. These inflationary policies, along with their concomitant artificially low interest rates, which disable the free market natural interest rate brake (Hayek 1975 [1933], 94), leads to unsustainable overinvestment. Absence politically unpopular, and economic disastrous perpetual inflation, this overinvestment must eventually come to an end, leading to a recession as resources are reallocated to bring the distribution of the type of the supply of capital and labor resources into alignment with the that of demand (Hayek 1950). The control of money also assisted in the wholesale adoption of Keynesian policies in the political realm. Government has witnessed a vast increase in size, relative to national income, since the elimination of a budgetary check on fiscal policies due to its ability to commandeer monetary policy.

Allowing competition in currency, Hayek (1976b, 100) argues, is the only way to eliminate these undesirable features of government control,

We have always had bad money because private enterprise was not permitted to give us a better one. In a world governed by the pressure of organized interests, the important truth to keep in mind is that we cannot count on intelligence or understanding but only on sheer self-interest to give us the institutions we need. Blessed indeed will be the day when it will no longer be from the benevolence of the government that we expect good money but from the regard of the banks for their own interest.

#### Hayek goes on,

A single monopolistic governmental agency can neither possess the information which should govern the supply of money nor would it, if it knew what it ought to do in the general interest, usually be in a position to act in that manner...Money is not a tool of policy that can achieve particular foreseeable results by control of its quantity. But it should be part of the self-steering mechanism by which individuals are constantly induced to adjust their activities to circumstances on which they have information only through the abstract signal of prices.

To be accurate, Hayek wasn't actually advancing ideas that were entirely new to him, just ones that he previously entertained and germinated but never fully developed theoretically until later in his life. Hayek (1950, 184) had entertained doubts about the ability of a monetary authority to

constrain themselves prior to his arguments for the necessity of a central bank,

It was certainly wise that at a time when the scope and objectives of monetary policy were much more limited, its direction was placed in the hands of bodies not directly subject to political control. It is understandable and perhaps inevitable that once the much greater use of these powers is recognised, it should become a major political issue. But it must appear more than doubtful whether in the nature of democratic institutions it is possible that democratic governments will ever learn to exercise that restraint, which is the essence of economic wisdom of not using palliatives for present evils which not only create worse problems later but also constantly restrict the freedom of further action.

Earlier on, Hayek (1978[1960], 330) also pinpointed one of the major causes of

continuous inflation is that the fear of deflation, which encourages the policy that deflation should be avoided at all cost, resulting in a "…persistent error in the direction of inflation…"

Hayek (1978) released a second edition of the *Denationalisation of Money*, with the subtitle, "The Argument Refined," which expanded upon and added to his arguments in the first edition. Most conspicuously is the expansion of his "Monetary Policy Neither Desirable Nor Possible" chapter, which included an addition of a subchapter on "The abolition of Central Banks," in which Hayek argues that with the elimination of government's monopoly on money would come the elimination of the central bank, as well as, in particular, government interest rate policy. Just like any other price in the market, Hayek argued that interest rates should be allowed to develop in the free market, transmitting the myriad circumstances affecting the supply and demand of money that no central agency could ever know. Though, even under this regime, the government would still have some influence over interest rates through debt financed fiscal policies, but it could no longer artificially keep the interest rate low in order to borrow cheaply. Hayek (1999[1980], 239) argued in free market competition of currency that,

...a private institution which must issue money in competition with others can only remain in business if it provides the people with a stable money which it can trust. The slightest suspicion that the issuer was abusing his position when issuing money would lead to a depreciation of its value and would at once drive him out of business. The constant danger of losign the customers of one's business is a better disciplining force and will be more effective to maintain the value of money, than anything else. It would operate in such a way that, at the slightest rumor that one money was decreasing in value as compared to other currencies, everybody would try to get rid of the money threatened with depreciation and exchange it for a money which inspires more confidence.

As a young scholar, Hayek argued that a central bank was not only necessary, but that even if it wasn't necessary that it would be undesirable to have the market provision of central banking functions. Towards the end of his scholarly career, Hayek argued the opposite, arguing that money can, and should be provided through market mechanisms rather than left in the hands of politically susceptible monetary authorities. While he had brilliantly made the case in his younger days for an operational monetary regime, the operation depended upon the assumptions that Hayek made about the motivations and cognitive abilities of the monetary authority. When Hayek applied the concepts of robust political economy to monetary regimes, he came to the conclusion that the only robust monetary regime was the free market provision of currency.

#### 3 Milton Friedman: From the Quantity Theory Restated to Inflation Targeting

In his early work, Friedman (2002[1962], 38), argued that a central bank was necessary to "... provide a stable monetary framework for a free economy..." as part of providing a stable legal and economic framework that would allow individuals to carry out their own plans. Friedman, having gone to the University of Chicago for his MA degree, and returning there after his Ph.D., grew up in the environment that had produced the "Chicago Plan." The Chicago Plan was a memorandum sent out by several prominent Chicago economists, including Herbert Simons, Frank Knight and Henry Schultz, incorporating their experiences as academic economists to advise the government to guarantee bank deposits and pursue a course of inflationary expansion (Phillips 1995, 191).

But, even in those early days, Friedman (2002[1962], 27) understood the importance of the monetary function, and the importance of properly monitoring and restraining the authority,

Government responsibility for the monetary system has long been recognized. It is explicitly provided for in the constitutional provision which gives Congress the power "to coin money, regulate the value thereof, and of foreign coin." There is probably no other area of economic activity with respect to which government action has been so uniformly accepted. This habitual and by now almost unthinking acceptance of governmental responsibility makes thorough understanding of the grounds for such responsibility all the more necessary, since it enhances the danger that the scope of government will spread from activities that are, to those that are not, appropriate in a free society, from providing a monetary framework to determining the allocation of resources among individuals.

Friedman (1968, 12), believed that the proper conduct of monetary policy should be to pursue such policies as would ensure that money does not become a source of economic disturbance. Friedman sought to create a monetary regime that entrusted the Federal

Reserve with enough discretion to achieve this goal, but also limited the ability of the Federal Reserve to generate adverse swings in policy by giving the Federal Reserve a stated and known target rate of currency growth. Friedman argued that this type of monetary regime was not only optimal, but politically feasible as well,

...steady monetary growth would provide a monetary climate favorable to the effective operations of those basic forces of enterprise, ingenuity, invention, hard work, and thrift that are the true springs of economic growth. That is the most we can ask from monetary policy at our present stage of knowledge. But that much —and it is a great deal—is clearly within our reach.

Friedman (2002[1962], 38) argued for chartering a course for monetary policy in between two extreme views that he felt were economically and politically undesirable. The one course, which he labeled the 'Scylla' belief, held that a purely automated gold standard was the only politically feasible and economically desirable monetary regime. The other course, which he labeled the 'Charybdis' view, held that the monetary authority should be granted wide discretionary powers in order to respond to unforeseen circumstances. Both views, he believed, had failed in the past, and would likely continue to fail in the future. Friedman (2002[1962], 54) proposed doing this by a legislated rule that would mandate a specific rate of growth in the stock of money for the monetary authority. In addition, and less important, proposed additional restraints on the monetary authority's discretion in choice of methods to achieve the target rate of growth in the money stock in order to eliminate the "... the present governmental intervention into lending and investing activity..." and to turn government "...financing operations from a perpetual source of instability and uncertainty into a reasonably regular and predictable activity." This type of rule would be the "...only feasible device currently available for converting monetary policy into a pillar of a free society rather than a threat to its foundations." Friedman was beginning to realize the difficulty of predicting the direction of the economy and how the long and variable lags of monetary policy would manifest themselves, rather he was turning to advocating that monetary policy should be conducted at stable and predictable rates (Friedman 1968 & 1982a).<sup>6</sup> Friedman (2002[1962], 50) recognized that getting close to the Charybdis was extremely dangerous,

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... Mistakes, excusable or not, cannot be avoided in a system which disperses responsibility yet gives a few men great power, and which thereby makes important policy actions highly dependent on accidents of personality. This is the key technical argument against an "independent" bank. To paraphrase Clemenceau, money is too serious a matter to be left to the Central Bankers.

Perhaps Friedman's early views are best summed up by Kane (1980),

...monetarism can be interpreted as a compromise movement whose principal goal is to liberate the Federal Reserve from procyclical political pressures by refocusing the Federal Reserve's intermediate policy targets from sectorally nonneutral interest rates to average rates of growth in monetary aggregates. The monetarist control strategy holds out the hope that the Federal Reserve can validate the utopian conception by loudly and steadfastly denying all responsibility for stabilizing nominal interest rates in the short run.

Twenty years later, Friedman (1982a) was growing frustrated at the failure of the Federal

Reserve to reform itself,

The only two alternatives that do seem to me feasible over the longer run are either to make the Federal Reserve a bureau in the Treasury under the Secretary of the Treasury, or to put the Federal Reserve under direct congressional control. Either involves terminating the so-called independence of the system. But either would establish a strong incentive for the Fed to produce a stabler monetary environment than we have had.

In 1986 (59), Friedman (with Schwartz) revealed that his belief in the desired course had moved

even closer to the 'Scyalla' view, and that monetary authority should be more tightly bound,

<sup>&</sup>lt;sup>6</sup> Also see the comment to Friedman (1982a), Levin and Melendyke (1982), and Friedman's (1982b) reply.

Even granted the market failures that we and many other economists had attributed to a strictly laissez-faire policy in money and banking, the course of events encouraged the view that turning to government as an alternative was a cure that was worse than the disease, at least with existing government policies and institutions. Government failure might be worse than market failure...Our personal conclusion...is that rigid monetary rule is preferable to discretionary monetary management by the Federal Reserve.

Friedman shows this even more clearly in Money Mischief: Episodes in Monetary History where he dedicates an entire chapter to explaining his now famous adage that "...substantial inflation is always and everywhere a monetary phenomenon..." (Friedman 1994, 193). Friedman argues that inflation is directly a result of government printing too much currency, and that the reason they do this is to increase the provision of public goods without the necessity of instituting politically unpopular taxes or increasing the debt. Friedman begins to see that the cure for inflation isn't just "...knowing what to do," because "[t]hat is easy enough" (Friedman 1994, 213). The problem is having the "...political will to take the necessary measures" to curb profligate government spending (Friedman 1994, 213). For Friedman, the problem was becoming less about finding the technically optimal monetary path and handing it to the monetary authorities to follow, but finding institutions that would be robust to the imperfect monetary authorities that characterized the real world. This lead to Friedman's proposition for a k-percent rule that would require the monetary authority to keep the difference between the yields on standard bonds and indexed bonds it issued less than a specified goal, such as 3%. Friedman (1994, 229) suggested that punishment in the form of reduced compensation and threats of being removed from office could help this rule quell inflation.

Friedman's development in his thinking on the proper monetary regime showed an even more abrupt turnabout after another 20 years. When asked if it would be desirable to turn

monetary policy over to a computer, in an interview published posthumously, Friedman (2007)

replied,

Yes. Of course it depends very much on how the computer is programmed. I am not saying that any computer program would do. In speaking of that, I have had in mind the idea that a computer would produce, for example, a constant rate of growth in the quantity of money as defined, let us say, by M2, something like 3% to 5% per year. There are certainly occasions in which discretionary changes in policy guided by a wise and talented manager of monetary policy would do better than the fixed rate, but they would be rare.

In any event, the computer program would certainly prevent any major disasters either way, any major inflation or any major depressions. One of the great defects of our kind of monetary system is that its performance depends so much on the quality of the people who are put in charge. We have seen that in the history of our own Federal Reserve System. Surely a computer would have produced far better results during the 1930s and during both world wars.

That raises a question about the desirability of our present monetary system. It is one in which a group of unelected people have enormous power, power which can lead to a great depression or which can lead to a great inflation. Is it wise to have that power in those hands?

Friedman, even went on to suggest the elimination of the Federal Reserve,

An alternative would be to eliminate the Federal Reserve System; to reduce the monetary activities of the Federal Government to the provision of high-powered money, that is, currency and bank reserves, and to constitutionalize, as it were, what is to be done with high-powered money. My preference is simply to hold it constant and let financial developments produce the growth in the quantity of money in the form of bank deposits, a process that has been going on for many decades. But that is, of course, politically impossible.

Friedman recognized that there was a tradeoff between complete monetary discretion and binding monetary rules. At the beginning of his scholarly career he argued that a course could successfully be navigated between these two extremes. Friedman's belief in the ability of monetary authority to handle discretionary power dwindled throughout his life. By the end of his scholarly career, Friedman was arguing that monetary authorities could not be entrusted with any discretionary powers, and that monetary policy should be conducted by a computer. Similar to Hayek, as Friedman's scholarship on monetary regimes progressed, Friedman came to the conclusion that a discretionary monetary regime was not robust to the relaxation of the ideal epistemic and motivational assumptions and that a more robust monetary regime was necessary for operation in a world that wasn't ruled by angels.

#### 4 James M. Buchanan: From Brick Standard to Monetary Constitution

James Buchanan sought to bring his extensive work on rule-making to bear in envisioning a monetary regime that could operate within a contemporary democratic setting. From the start, Buchanan (1999[1962]) eschewed the 'presuppositions of Harvey road' that held that economic policy would be crafted and implemented by a group of benevolent and enlightened elites. Buchanan set out to make the case for a monetary regime using comparative institutional analysis that compared monetary regimes in real, not ideal settings.

Buchanan (1999[1962]) believed that it was not so much the specific type of monetary regime adopted, but the set of rules that defined that regime. Buchanan argued that the brick standard, a labor standard, or a manager confined by well-defined rules, would all put a stop to the government growth let loose by the fiscal profligacy encouraged by the wide scale acceptance of Keynesian ideas in the political realm (see Buchanan and Wagner (2000[1977]). The brick standard, as defined by Buchanan, would be a monetary regime that allowed anyone to go to the mint with a standard building brick of a specified quality and exchange it for the monetary unit, and vice versa. As the general price level fluctuated, market forces would cause

automatic adjustments as people would exchange money for bricks when the price level rose above the equilibrium level, and bricks for money when the price level fell below the equilibrium level. Under this regime, market actors, guided by profits and losses would be the mechanism that achieved price predictability, not a government-entity entrusted with the goal of achieving it. In addition, a brick standard would, most likely, divorce domestic monetary policy from international balance of payment and exchange rate policies due to the fact that a brick standard would be unsuitable for those purposes.

For Buchanan (1999[1962], 417), it came down to a toss-up between a brick type standard and a somehow limiting the discretionary ability of monetary authorities. What Friedman felt that mattered most for monetary predictability was that the rules of the monetary regime must be of the 'constitutional' variety. In other words, the rules must be set to be 'relatively absolute absolutes' in order to protect them from tampering.

After witnessing the Keynesian-inspired growth in government, Buchanan became more wary of the ability to confine a monetary authority. Buchanan and Wagner (2000[1977], 124) stated that "[p]ermanent insulation of an effective monetary authority from politics is not something upon which hopes for rescue should be based." Buchanan (2001[1986], 333) argued that "[a]t best, therefore, the truly benevolent despot can only be partially successful, even given the most clearly defined target for policy." Then criticizing the benevolence assumption, Buchanan goes on "...it is evidence, quite apart from any historical record, that the despot will find it advantageous to resort to money creation over and beyond any amount that might characterize the 'ideal' behavior of the benevolent counterpart considered above."

In the wake of the onset of the current financial crisis, Buchanan's (2009a) views have progressed even further,

Critical evaluation and assessment suggests that the structure of the whole monetary economy is flawed, which points toward genuine constitutional revolution rather than either a change in participants or piecemeal adjustments in the regulatory apparatus.

Buchanan (2009b) went so far as to assert that "...the 2009 monetary settings carries an eerie similarity to that in the seventeenth-century imagination of Thomas Hobbes concerning nonmonetary rights and claims." Buchanan goes on to argue for the constitutionalization of money,

Explicit constitutionalism would also embody the requirement that the monetary authority itself be bound by the rules of basic contract. Beyond narrow limits, discretion on the part of the authority goes outside the dictates of constitutional criteria.

Buchanan started his first scholarly work on monetary regimes by arguing for a brick standard. Now Buchanan is once again turning his scholarly attention to monetary regimes and is now arguing for putting the constitutionalization of money. As Hayek and Friedman before him, Buchanan's views on the proper monetary regime evolved as well, seeking a monetary regime that was more robust to real world conditions.

### 5 Applying Robust Political Economy to Our Monetary Institutions

To replicate this transformation of ideas of Hayek, Friedman, and Buchanan in the economics profession, we argue for three things, professional humility, creative thinking, and a focus on the politically possible, not the politically feasible.

## 5.1 Professional Humility

Perhaps part of the problem is the lack of humility economists have when making monetary policy recommendations. As Colander (2009a) puts it, the mess the profession is in today is "...a story of the modern economics profession's failure to express its ideas and arguments with the humility with which they deserve to be expressed."

Mayer (1993a, 2), suggests that monetary economists who focus on strictly technical

matters have two options,

One is to discuss only those aspects of monetary policy for which rigorous answers can be derived. They can then make authorities statements about particular aspects of monetary policy, but having nothing to say about other important aspects of monetary policy, they can make no statements about monetary authority as a whole. Such self-restraint by economists would certainly be a defensible position. Defensible, yes, but hardly realistic. Nearly all monetary economists make judgments about monetary policy as a whole. The public, imbued with Marshall's definition of economics, asks economists practical questions about monetary policy, that is, questions requiring knowledge of many aspects of monetary policy, not just questions about those formal problems that economics can resolve unequivocally. But if economists therefore address broad questions about monetary policy, then they must study, as best they can, all relevant aspects of monetary policy...

Boettke, Coyne, and Leeson (2006) discuss how the economics profession as a whole has

overstepped his boundaries as a profession in its transition from a social science studying the

economy to one that is entrusted with controlling the economy. This leads to what Hayek (1974)

referred to in his Noble Prize Lecture as the 'pretense of knowledge,'

If man is not to do more harm than good in his efforts to improve the social order, he will have to learn that in this, as in all other fields where essential complexity of an organized kind prevails, he cannot acquire the full knowledge which would make mastery of the events possible. He will therefore have to use what knowledge he can achieve, not to shape the results as the craftsman shapes his handiwork, but rather to cultivate a growth by providing the appropriate environment, in the manner in which the gardener does this for his plants. There is danger in the exuberant feeling of ever growing power which the advance of the physical sciences has engendered and which tempts man to try, "dizzy with success", to use a characteristic phrase of early communism, to subject not only our natural but also our human environment to the control of a human will. The recognition of the insuperable limits to his knowledge ought indeed to teach the student of society a lesson of humility which should guard him against becoming an accomplice in men's fatal striving to control society - a striving which makes him not only a tyrant over his fellows, but which may well make him the destroyer of a civilization which no brain has designed but which has grown from the free efforts of millions of individuals.

Similarly, Coyne and Boettke (2006), argue in a development context, that when we introduce government agencies that can influence the operation of the market, economists are tempted to step outside the limits of their scientific understanding and attempt to effectuate change, moving from being a 'student' of the economy to being a 'savior' of the economy, and the government to move from being a 'referee' to being an active 'player' in the market (**Figure 3**).

While monetary economists must continue to seek to advance our understanding of monetary influences in the economy, we will continue to blunder in our efforts and tarnish the image of the profession if we refuse to apply the most fundamental principles of economics to our own profession and the institution that most represents it, the Federal Reserve. Incentives, knowledge, and the institutions that structure them matter. Economists, especially when they step outside the scientific boundaries of the profession and attempt to be saviors of the economy by making the government a player in the economy, are susceptible to the very same cognitive and motivational shortcomings that are inherent to all men. This is precisely why the research program of Hume and Smith led them to adopt the concepts of robust political economy; institutions need to be robust to these cognitive and motivational imperfections of man. With a lack of humility, we have rejected this research program in monetary economics, leading us to design a Federal Reserve highly susceptible to deviations from our ideal assumptions.

#### 5.2 Creative Thinking

While there has been an ongoing debate as to the desirability of constraining the Federal Reserve with stringent rules or allowing the Federal Reserve the leeway to respond to changing economic circumstances (Argy 1971; Attiyeh 1965; Bernanke and Mishkin 1997; Blinder 1997 & 2000; Bronfenbrenner 1961 & 1965; Dennis 2010a & 2010b; Dwyer 1993; Endres and Fleming 1998; Fischer 1988; Hetzel 1997; Garmin and Richards 1989; Ireland 2002; Klein 1990; Koot and Walker 1974; Kydland and Prescott 1977; Barro and Gordon 1983; McCallum 1997; Modigliani 1964; Poole 1999; Simons 1936; Stokey 2002; Svensson 2002; Taylor 1983, 1993, 1999). Stokey (2002) summarized the debate after 25 years,

Of course, in the long run monetary and fiscal policy are linked through the government's budget constraint. Good monetary policy is simply in-feasible without a conservative (balanced budget) fiscal policy. A government that runs substantial deficits, with no prospect of surpluses to retire the accumulating debt, will eventually fail in its efforts to float new bond issues. The problem is exacerbated if, as is typically the case, old debt must be rolled over as well. At some point the only feasible options are outright default, a large devaluation, or both. A government facing that situation typically finds the seignorage revenue from a large devaluation too attractive to resist, and monetary policy becomes the fiscal policy of last resort.

Using the Federal Reserve's own objectives, Selgin, Lastrapes, and White (2010), evaluated the record of Federal Reserve performance. They found that since the inception of the Federal Reserve, there have been more symptoms of monetary and macroeconomic instability. Friedman (1982a & 1982b) looking at the history of the Federal Reserve, found, despite the rhetoric that the Federal Reserve will not serve as an engine of inflation, that it has been almost exclusively an engine of inflation since 1960 and during both World Wars.

Given this failure, and the experiences of F.A. Hayek, Milton Friedman and James M. Buchanan, it is perplexing that the contemporary debate on the appropriate Federal Reserve policy, especially in the wake of the financial crisis, has led to a concentration of scholarly focus on the strictly technical considerations of monetary policy. Once in this debate, economists lose sight of an essential wisdom of the classical political economists. A research program in robust political economy is one that sets on an intellectual quest to find institutional regimes that are not dependent upon angels to run them. Technical optima are nonoperational in a contemporary democratic setting. Political economy considerations must be incorporated into any proposed solutions. As Brunner (1972) argued,

The conditioning beliefs are assumed to represent the actual structure. But suppose the assumption is unwarranted. Suppose the actual process deviates radically from the beliefs conditioning the policymakers' correlations between intentions and actual policies. Policies remain optimally adjusted, but adjusted to the misconception governing the policymakers' actions...The use of an appropriate theory governing policy making procedures thus forms a crucial condition of rational policy.

It wasn't until the adoption of public choice into economics that these political economy

postulates of Smith and Hume were more fully incorporated into the theorizing of the economics

profession. Buchanan and Brennan (1981) wrote,

The model of political process implicitly assumed in most orthodox discussion of economic policy has made profoundly different assumptions about individual behaviour from the corresponding assumptions made in market settings. It has only been in the last 20 years with the burgeoning of public choice that this grotesque asymmetry has been exposed, and the 'benevolent despot' model of politics been seriously queried.

Hayek, Friedman and Buchanan all set out to find a monetary regime that could be constrained in order to operationalize the technically optimal policy. Each of them ended up rejecting the possibility, primarily due to the inability of the Federal Reserve decision-makers to shield themselves from political influences. Unfortunately, these essential wisdoms have not been incorporated into monetary theory. In discussing monetary policy in the wake of the crisis there are theoretical ideas which many believe to be true which are in fact not true, and there are ideas which while true are impractical at the current moment. But there are also ideas which are only true if we permit the introduction of assumptions which should not be permitted if we want to think about robust political economy. It does us little good to assume independence, benevolence, and omniscience on the part of public policy decision makers. As Brunner (1981), states, "we should not expect that a monetary authority will naturally pursue optimal social benefits achievable with cleverly designed stabilization policies."

While Hayek, Friedman, and Buchanan led us towards this solution through their evolving ideas and scholarship on the application of the concepts of robust political economy to monetary regimes, there has been recent scholarship that has advanced their thinking even further.

What is needed is creative thinking. Monetary economists must seek to incorporate the concepts of robust political economy into our monetary institutions. Colander (2009b) made a call for creativity in his testimony before the House Science and Technology Committee,

How did something so stupid happen in economics? It did not happen because economists are stupid; they are very bright. It happened because of incentives in the academic profession to advance lead researchers to dot i's and cross t's of existing models, rather than to explore a wide range of alternative models, or to focus their research on interpreting and seeing that models are used in policy with common sense. Common sense does not advance one very far within the economics profession. The over-reliance on a single model used without judgment is a serious problem that is built into the institutional structure of academia that produces economic researchers. That system trains show dogs, when what we need are hunting dogs. The incorrect training starts in graduate school, where in their core courses students are primarily trained in analytic techniques useful for developing models, but not in how to use models creatively, or in how to use models with judgment to arrive at policy conclusions.<sup>7</sup>

Arthur Burns (1979, 24) suggests that the only way the United States can ever eliminate or curb inflation is to "…rout inflationary psychology," which is "…not likely to be accomplished by marginal adjustments of public policy."<sup>8</sup>

Kotlikoff (2010, 204) suggests the radical reforms of limited purpose banking to remove the "fiscal and economic swords of Damocles that hang dangerously over our children." Johnson and Keleher (1996) suggest what they call a "market price approach" to monetary policy utilizing commodity prices, the foreign exchange rate, and bond markets as price indicators. Similarly, Greenfield and Yeager (1983) suggest a method of defining the unit of account in terms of market-priced commodities, freeing it from the necessity of quantity management or redeemability. Kydland and Wynne (2002) look at the possibility of returning to the gold standard in order to tie the hands of the monetary authority, but ultimately argue that a government strong enough to tie its own hands is strong enough to break those ties. Meiselman (1986), like Buchanan, calls for a constitutional rule to constrain the Federal Reserve. Bernholz (1986, 496), on the other hand, examines the history of restraining monetary authorities with constitutional rules and concludes that "...even the best monetary constitutions cannot be maintained indefinitely."9 Mayer and Willett (1988) argue that there is a dire need to restructure our monetary institution, and evaluate what they see as the different alternatives, returning to the gold standard, a commodity standard, constitutionalization, or competitive currencies.

<sup>&</sup>lt;sup>7</sup> See also Colander (2009a).

<sup>&</sup>lt;sup>8</sup> Also see Banaian, Laney, McArthur, and Willett (1988).

<sup>&</sup>lt;sup>9</sup> Also see Christainsen (1988).

Perhaps the only way to constrain monetary policy is by eliminating the state monopoly of it, instead of seeking technical optimums that are never realized in practice due to the frailty of the Federal Reserve to the pressures and shortcomings of the contemporary democratic setting in which policy is actually enacted. A free market in banking, just as the Scottish Enlightenment thinkers realized for any free market, is robust to short-sightedness and knavery, unlike arguments for government control which so often rest on assumptions of benevolence and omniscience, rendering the governmental solutions nonoperational in real world settings. Selgin and White (1994) in their *Journal of Economic Literature* summary of the insights found in the literature on free banking strongly suggest that this alternative is viable.<sup>10</sup>

## 5.3 An Appeal for the Politically Possible, not the Politically Feasible

While we admonish the monetary theorists who focus exclusively on technical considerations of monetary theory that fall outside of the realm of the politically possible, free banking, in the end, falls outside the realm of the politically feasible. The key distinction is that in the first case, political possibility refers to the epistemic and motivational constraints of man as man, and in the second case, political feasibility is referring to what ideas have advanced to a stage of acceptance that would make them possible to implement in a contemporary democratic setting. In other words, it is impossible to implement a nonoperational monetary regime based off of ideal assumptions among real men, but it is entirely possible to implement, a robust free-market monetary regime, it just takes various iterations for the idea to gain enough political acceptance. As Timberlake (1993, 420) concludes,

<sup>&</sup>lt;sup>10</sup> For more on free banking, see Black (1970), Dowd (1992 & 2001), King (1983), O'Driscoll (1986); Smith (1990 [1936]), Selgin (1988), Wagner (1986), and White (1988, 1989 & 1995[1984])

Popular sentiment has become conditioned to the rule of men and women in monetary policy, no matter the evidence that documents its failure. So the case rests: Until the government's monopoly over money is abolished, good private competitive enterprise money will never have the chance to drive out bad governmental monopoly money.

While Selgin and White (1994) find the theoretical case for competitive money to be quite sound, and empirically establish its historical operation, they do acknowledge that free banking is not an immediately politically feasible option in the United States. Hayek (1999[1980], 247) as well, questioned the political feasibility of eliminating the government monopoly on note issuance,

But through years of further reflection of the problem have only confirmed my belief that this ought to be the final solution of our money problems. I cannot close my eyes to the fact that any hope for a voluntary abdication by governments of their present monopolies of the issues of circulating currency is utopian. Yet this is the only way in which we will ever get back to honest money again while at the same time ridding ourselves of the evils of depression, unemployment and general disorganization on the market. Governments have become dependent on their power to create money for the finance of their own activities. They regard this ability as so essential a weapon of their economic policy, that they will probably defend to the last, not merely all the explicit power the law has conferred upon them, but also any other power which they can obtain.

As Buchanan (1986) and Friedman and Schwartz (1986) explain, even if there is no current political aperture for the type of monetary regime that Hayek, Friedman, and Buchanan were lead to support, it is the job of academics to have theories worked out and prepared for when they are needed. And as Selgin and White (1994) conclude, "...a verdict on the desirability of monetary laissez faire may motivate the direction taken by marginal reforms, within the constraints of the politically possible."

If economists are going to continue to make monetary policy recommendations, a scientific profession should focus on policy recommendations that are possible, not just those

that are feasible. While there may be some legitimacy in making politically feasible policy steps in the right direction, there is no legitimacy in advocating policy proposals that are politically impossible just because they happen to be politically feasible. Relevant scientific advancement in the social sciences will always come from what is politically possible, even if it was initially politically infeasible. F.A. Hayek, Milton Friedman, and James Buchanan spent much of their scholarly careers attempting to find a politically feasible and politically possible method to improve the Federal Reserve. Each one of them abandoned these efforts towards the end of their careers, choosing instead to concentrate their scholarly efforts on advancing the acceptance of what was politically possible, but politically infeasible at the current moment.

#### 6 Conclusion

What in our contemporary history of the Federal Reserve should give us any reason to not follow Friedman and tie the hands of the monetary authority so tightly that the bonds cannot be broken to juggle, let alone Hayek and point out that the only robust political economy option when it comes to central banking is to abolish it by taking away the juggler's balls?

While traditionally, "[a]nswers to the question of how to change institutions focused on changing the institutional structure of the Fed so that it might process greater amounts of information more efficiently and develop a more sophisticated and more accurate understanding of the macroeconomy" (Morris 2002, 6), we argue that institutional change in the Fed will require a more drastic changing of the institutional structure to ensure a more accurate incorporation of robust political economy.

Krugman (2009b) blames the recent failures of the economics profession on its ideal assumptions of the market place,

...economics, as a field, got in trouble because economists were seduced by the vision of a perfect, frictionless market system. If the profession is to redeem itself, it will have to reconcile itself to a less alluring vision — that of a market economy that has many virtues but that is also shot through with flaws and frictions.

Instead, we argue that the failure of the economics profession has not been because of our assumptions about actors in the market, but about the assumptions that we make about ourselves; the ability of economists to have the immunity to political pressures and omniscience required to undertake the monetary tasks we assign to it in the institutional structures and policies of the Federal Reserve. The transition of the ideas of Nobel Laureates Hayek, Friedman, and Buchanan towards adopting this humility into their monetary policy frameworks offers an insightful lesson for the profession to follow forward and redeem itself.

FIGURE 1

FIGURE 2

## FIGURE 3



From Coyne and Boettke (2006).
## References

- Adrian, Tobias, Karin Kimbrough, and Dina Marchioni (2011). "The Federal Reserve's Commercial Paper Funding Facility," *Economic Policy Review*, Federal Reserve Bank of New York 17(1): 25-39.
- Ait-Sahalia, Yacine, Jochen Andtirzky, Andreas Jobst, Sylwia Norwak, and Natalia Tamirisa (2010). "Market Resposne to Policy Initiatives During the Global Financial Crisis," NBER Working Paper No. 15809.
- Alesina, Alberto and Jeffrey Sachs (1988). "Political Parties and the Business Cycle in the United States, 1948-1984," *Journal of Money, Credit and Banking* 20(1): 63-82.
- Alt, James E. and Alec Crystal (1983). *Political Economics*. Los Angeles: University of California Press.
- Argy, Victor (1971). "Rules, Discretion in Monetary Management, and Short-Term Stability," *Journal of Money, Credit and Banking* 3(1): 102-122.

- Attiyeh, Richard (1965). "Rules versus Discretion: A Comment," *Journal of Political Economy* 73(2): 170-172.
- Axilrod, Stephen H. (2011). Inside the Fed: Monetary Policy and Its Management, Martin through Greenspan to Bernanke. Cambridge, MA: The MIT Press.
- Bach, George L. (1950). Federal Reserve Policy-Making: A Study in Government Economic Policy Formation. New York, NY: Alfred A.Knopf.
- Ball, Laurence M. (2012). "Ben Bernanke and the Zero Bound," NBER Working Paper No. 17836.
- Banaian, King, Leroy O. Laney, John McArthur, and Thomas D. Willett (1988).
  "Subordinating the Fed to Political Authorities Will Not Control Inflationary Tendencies," In Thomas Willet's (Ed.) *Political Business Cycles: The Political Economy of Money, Inflation, and Unemployment*. Durham, NC: Duke University Press pp. 490-505.
- Bateman, Bradley W. and Toshiaki Hirai, and Maria Cristina Marcuzzo (Eds.). (2010). *The Return to Keynes*. Cambridge, MA: The Belknap Press of Harvard University Press.
- Barro, Robert J. and David B. Gordon (1983). "Rules, Discretion and Reputation in a Model of Monetary Policy," *Journal of Monetary Economics* 12: 101-121.
- Bean, Charles (2009). "The Great Moderation, the Great Panic and the Great Contraction," Schumpeter Lecture, European Economic Association Congress, Barcelona.
- Beaulier, Scott A. and Peter J. Boettke (2011). "Deficits, Debt and Debasement," Cato

*Policy Report*, July/August. Retrieved online August 19, 2011, available at: <u>http://</u> www.cato.org/pubs/policy\_report/v33n4/cprv33n4-1.html

Becker, Gilbert (1986). "The Public Interest Hypothesis Revisited: A New Test of Peltzman's Theory of Regulation," *Public Choice* 49(3): 223-234.

Bernanke, Ben S. (2010) "Monetary Policy and the Housing Bubble," Remarks at the *American Economic Association Annual Conference*, Atlanta, GA.

Bernanke, Ben S. and Frederic S. Mishkin (1997). "Inflation Targeting: A New

Framework for Monetary Policy?" The Journal of Economic Perspectives 11(2): 97-116.

Bernholz, Peter (1986). "The Implementation and Maintenance of a Monetary Constitution," *Cato Journal* 6(2): 477-511.

- Black, Fischer (1970). "Banking and Interest Rates in a World without Money: The Effects of Uncontrolled Banking," *Journal of Banking Research* 1(Autumn): 9-20.
- Blanchard, Oliver, Giovanni Dell'Arrica, and Paolo Mauro. (2010). "RethinkingMacroeconomic Policy," *Journal of Money, Credit and Banking* 42(6): 199-215.
- Blinder, Alan S. (1997) "Distinguished Lecture on Economics in Government: What Central Bankers Could Learn from Academics—And Vice Versa," *The Journal of Economic Perspectives* 11(2): 3-19.
- Blinder, Alan S. (2000). *Central Banking in Theory and Practice*. Cambridge, MA: The MIT Press.
- Blum, John Morton (1959). From The Morgenthau Diaries: Years of Crisis 1928-1938.Boston, MA: Houghton Mifflin Company

Boettke, Peter, Christopher Coyne, and Peter Leeson (2006). "High Priests and Lowly

Philosophers: The Battle for the Soul of Economics," *Case Western Reserve Law Review* 56(3): 551-568.

- Boettke, Peter and Peter Leeson (2004). "Liberalism, Socialism and Robust Political Economy," *Journal of Markets & Morality* 7(1): 99-111.
- Boettke, Peter J., Daniel J. Smith and Nicholas A. Snow (2011). "Been there, done that: The political economy of Déjà vu, 1950-2010," In, Steven Kates (Ed.), *The Global Financial Crisis: What Have we Learnt?* Edward Elgar Publishing.
- Bordo, Michael D. and John Landon-Lane (2010). "The Lessons from the Banking Panics in the United States in the 1930s for the Financial Crisis of 2007-2008," NBER Working Paper 16365.
- Bronfenbrenner, M. (1961). "Statistical Tests of Rival Monetary Rules," *Journal of Political Economy* 69(1): 1-14.
- Bronfenbrenner, M. (1965). "Monetary Rules: A New Look," Journal of Law and Economics 8: 173-194.
- Brunner, Karl. (1972). "The Ambiguous Rationality of Economic Policy," *Journal of Money, Credit and Banking* 4(1): 3-12.
- Brunner, Karl and William H. Meckling (1977). "The Perception of Man and the Conception of Government," *Journal of Money, Credit and Banking* 9(1): 70-85.
- Brunner, Karl (1981). "The Case Against Monetary Activism," *Lloyd's Bank Review* 139(1): 95-106.
- Buchanan, James M. (1962). "Politics, Policy and the Pigovian Margins," *Economica* 29(1): 17-28.
- Buchanan, James M. (1975). "A Contractarian Paradigm for Applying Economic Theory," *The American Economic Review* 65(2): 225-230.

Buchanan, James M. (1986). "The Relevance of Constitutional Strategy," Cato Journal

6(2): 513-517.

- Buchanan, James M. (1999). "Politics without Romance: A Sketch of Positive PublicChoice Theory and Its Normative Implications," *The Collected Works of James Buchanan*Vol. 1: The Logical Foundations of Constitutional Liberty pp. 45-59.
- Buchanan, James M. (1999[1962]). "Predictability: The Criterion of Monetary Constitutions," *The Logical Foundations of Constitutional Liberty*. The Collected Works of James M. Buchanan, Vol. 1. Indianapolis, IN: Liberty Fund Inc. pp. 396-418.
- Buchanan, James M. (2000). "From Private Preferences to Public Philosophy: The
  Development of Public Choice," *The Collected Works of James Buchanan* Vol. 13:
  Politics and Public Choice pp. 39-56.
- Buchanan, James M. (2001[1986]). "Can Policy Activism Succeed? A Public Choice Perspective," *The Collected Works of James Buchanan* Vol. 19: Ideas, Persons, and Events.
- Buchanan, James M. (2009a). "Economists Have No Clothes," *Perspectives in Moral Science* 0: 151-156.
- Buchanan, James M. (2009b). *The Constitutionalization of Money* [speech]. Carrow Hall, George Mason University.
- Buchanan, James M. and Geoffrey Brennan (1981). "The Normative Purpose of
   Economic 'Science': Rediscovery of an Eighteenth Century Method," *International Review of Law and Economics* 1: 151-166.
- Buchanan, James M., Robert D. Tollison, and Gordon Tullock (1980). *Toward a Theory of the Rent-Seeking Society*. College Station, TX: Texas A & M Press, 3-15.

 Buchanan, James M. and Richard E. Wagner (2000[1977]). Democracy in Deficit: The Political Legacy of Lord Keynes. The Collected Works of James M. Buchanan, Vol. 8.
 Indianapolis, IN: Liberty Fund Inc.

- Burns, Arthur (1979). "The Anguish of Central Banking," The 1979 Per Jacobsson Lecture. Retrieved online March 20<sup>th</sup>, 2012. Available: <u>http://www.perjacobsson.org/</u> <u>lectures/1979.pdf</u>
- Cecchetti, Stephen G. (2008). "Crisis and Responses: The Federal Reserve and the Financial Crisis of 2007-2008," NBER Working Paper No. 14134.
- Christainsen, Gregory B. (1988). "Fiat Money and the Constitution: A Historical Review," In Thomas Willet's (Ed.) *Political Business Cycles: The Political Economy of Money, Inflation, and Unemployment*. Durham, NC: Duke University Press pp. 424-434.
- Claessens, Stign (2011). "Commentary," *Economic Policy Review*, Federal Reserve Bank of New York 17(1): 21-23.
- Clarida, Richard H. (2012). "What Has and Has Not Been Learned about Monetary Policy in a Low-Inflation Environment?" *Journal of Money, Credit and Banking* 44(1): 123-140.
- Cochrane, John H. (2011). "Understanding Policy in the Great Recession: Some Unpleasant Fiscal Arithmetic," *European Economic Review* 55(1): 2-30.
- Colander, David (2009a). "How Economists Got It Wrong: A Nuanced Account," Middlebury College Economics Discussion Paper No. 09-09.

Colander, David (2009b). "The Failure of Economists to Account for Complexity,"

Testimony submitted to the Congress of the United States, House Science and Technology Committee for the hearing on "The Risks of Financial Modeling: VaR and the Economic Meltdown."

- Coyne, Christopher and Peter J. Boettke (2006). "The Role of the Economists in Economic Development," *The Quarterly Journal of Austrian Economics* 19(1): 47-68.
- Dennis, Richard (2010a). "When is Discretion Superior to Timeless Perspective Policymaking," *Journal of Monetary Economics* 57(3): 266-277.
- Dennis, Richard (2010b). "How Robustness Can Lower the Cost of Discretion," *Journal* of Monetary Economics 57(6): 653-667.
- De Soto, Hernando (1990). *The Other Path: The Economic Answer to Terrorism*. New York, NY: Basic Books.
- Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer (2002). "The Regulation of Entry," *The Quarterly Journal of Economics* 116(1): 1-37.

Dowd, Kevin (e) (1992). The Experience of Free Banking. New York, NY: Routledge.

- Dowd, Kevin (2001). *Money and the Market: Essays on Free Banking*. New York: Routledge.
- Dwyer, Gerald P. Jr. (1993). "Rules and Discretion in Monetary Policy," *Federal Reserve Bank of St. Louis Review* May: 3-13.
- Eatwell, John and Murray Milgate (2011). *The Fall and Rise of Keynesian Economics*. New York, NY: Oxford University Press.
- Edelman, Murray (1952). "Governmental Organization and Public Policy," *Public Administration Review* 12(4): 276-283.

- Ellis, Christopher J. and Mark A. Thoma (1995). "The Implications for an Open Economy of Partisan Political Business Cycles: Theory and Evidence," *European Journal of Political Economy* 11(4): 635-651.
- Endres A.M. and Grant A. Fleming (1998). "The Early Development of Monetary PolicyRules: The View from Geneva in the 1920s," *Journal of Monetary Economics* 42(2): 375-386.
- Faust, Jon (1996). "Whom Can We Trust to Run the Fed? Theoretical Support for the Founders' Views," *Journal of Monetary Economics* 37(2): 267-283.
- Fischer, Stanley (1988). "Rules Versus Discretion in Monetary Policy," NBER Working Paper No. 2518.
- Friedman, Milton (1947). "Lerner on the Economics of Control," *Journal of Political Economy* 55(5): 405-416.
- Friedman, Milton (2002[1962]). Capitalism and Freedom. Chicago: University of Chicago Press.
- Friedman, Milton (1968). "The Role of Monetary Policy," *The American Economic Review* 58(1): 1-17.
- Friedman, Milton (1982a). "Monetary Policy: Theory and Practice," *Journal of Money, Credit and Banking* 14(1): 98-118.
- Friedman, Milton (1982b). "Monetary Policy: Theory and Practice, A Reply by Milton Friedman" *Journal of Money, Credit and Banking* 14(3): 404-406.
- Friedman, Milton (1994). *Money Mischief: Episodes in Monetary History*. Orlando, FL: Harcourt Brace & Company.

- Friedman, Milton (2007, January 22). Milton Friedman @ rest. The Wall Street Journal. Retrieved online August 13, 2010, available at: <u>http://online.wsj.com/public/article/SB116942792191783271-ZAcsMDZOCPy0yCR3ADsShGbx2vk\_20070128.html?</u> mod=blogs
- Friedman, Milton and Anna J. Schwartz (1986). "Has Government Any Role in Monetary Policy," *Journal of Monetary Economics* 17: 37-62.
- Gagnon, Joseph, Matthew Raskin, Julie Remache, and Brian Sack (2011). "Large-ScaleAsset Purchases by the Federal Reserve: Did They Work?" *Economic Policy Review*,Federal Reserve Bank of New York 17(1): 41-59.
- Garmin, David M. and Daniel J. Richards (1989). "Policy Rules, Inflationary Bias, and Cyclical Stability," *Journal of Money, Credit and Banking* 21(4): 409-421.
- Goldberg, Linda S., Craig Kennedy, and Jason Miu (2011). "Central bank Dollar Swap Lines and Overseas Dollar Funding Costs," *Economic Policy Review*, Federal Reserve Bank of New York 17(1): 3-20.
- Gorton, Gary B. and Andrew Metrick (2012). "Getting up to Speed on the Financial Crisis: A One-Weekend-Reader's Guide," NBER Working Paper No. 17778.
- Greenfield, Robert L. and Leland B. Yeager (1983). "A Laissez-Faire Approach to Monetary Stability," *Journal of Money, Credit and Banking* 15(3): 302-315.
- Hatzius, Jan, Peter Hooper, Frederic S. Miskin, Kermit L. Schoenholtz, and MarkWatson (2010). "Financial Conditions Indexes: A Fresh Look After the FinancialCrisis," NBER Working Paper No. 16150.

Hayek, F.A. (1948). "Individualism: True and False," Individualism and Economic

Order. Chicago: University of Chicago Press, 1948 pp. 1-32.

- Hayek, F.A. (1950). "Full Employment, Planning and Inflation," *Review of the Institute* of *Public Affairs* 4: 174-184
- Hayek, Friedrick A. (1975[1933]). *Monetary Theory and the Trade Cycle*. New York: Augustus M. Kelley.
- Hayek, F.A. (1974). "The Pretense of Knowledge," Nobel Prize Lecture. Retrieved online March 15<sup>th</sup>, 2012. Available: <u>http://www.nobelprize.org/nobel\_prizes/economics/</u> <u>laureates/1974/hayek-lecture.html</u>
- Hayek, F.A. (1976a). Choice in currency: A way to stop inflation. London: Institute for Economic Affairs. Retrieved online August 17, 2010, available at: <u>http://</u> www.iea.org.uk/files/upld-book409pdf?.pdf
- Hayek, F.A. (1976b). *Denationalisation of Money*. Great Britain: The Institute of Economic Affairs.
- Hayek, F.A. (1978[1960]). The Constitution of Liberty. Chicago: University of Chicago Chicago: The University of Chicago Press.
- Hayek, F.A. (1978). Denationalisation of Money: The Argument Refined. London:
  The Institute of Economic Affairs. Retrieved online August 17, 2010, available at: <a href="http://mises.org/books/denationalisation.pdf">http://mises.org/books/denationalisation.pdf</a>
- Hayek, F.A. (1999[1980]). "The Future Unit of Value," In Stephen Kresg's (Ed.), GoodMoney Part II: The Standard. The Collected Works of F.A. Hayek pp. 238-252.

Haynes, Stephen E. and Joe Stone (1988). "Does the Political Business Cycle Dominate

U.S. Unemployment and Inflation? Some New Evidence," In Thomas D. Willett's (Ed.) *Political Business Cycles: The Political Economy of Money, Inflation, and Unemployment.* Durham, NC: Duke University Press pp. 276-293.

- Hetzel, Robert L. (1997). "The Case for a Monetary Rule in a Constitutional Democracy," *Economic Quarterly*, Federal Reserve Bank of Richmond 83(2): 45-65.
- Higgs, Robert. (1987). Crisis and Leviathan: Critical Episodes in the Growth of American Government. New York, NY: Oxford University Press.
- Holden, Matthew, Jr. (1966). "'Imperialism' in Bureaucracy," *The American Political Science Review* 60(4): 943-651.
- Hume, David (1987). Essays, Moral, Political, and Literary. In Eugene F. Miller, (Ed.)
   Library of Economics and Liberty. Retrieved online October 14, 2011, available at: <a href="http://www.econlib.org/library/LFBooks/Hume/hmMPL.html">http://www.econlib.org/library/LFBooks/Hume/hmMPL.html</a>
- Ireland, Peter N. (2002). "Rules vs. Discretion' after Twenty-Five Years: Comment," *NBER Macroeconomics Annual* 17: 46-54.
- Jarocinski, Marek and Frank R. Smets (2008). "House Prices and the Stance of Monetary Policy." *Federal Reserve Bank of St. Louis Review*, 90(July/August): 339–65.
- Johnson, Manuel H. and Robert E. Keleher (1996). *Monetary Policy, a Market Price Approach*. Westport, CT: Quorum Books.
- Kane, Edward J. (1980). "Politics and Federal Reserve Policymaking: The More Things Change the More they Remain the Same," *Journal of Monetary Economics* 6(2): 199-211.
- Kettl, Donald F. (1986). Leadership at the Fed. New Haven, CT: Yale University Press.

- Klein, Daniel B. (1990). "The Microfoundations of Rules vs. Discretion," *Constitutional Political Economy* 1(3): 1-19.
- King, Robert (1983). "On the Economics of Private Money," *Journal of Monetary Economics* 12: 127-158.
- Koot, Ronald S. and David A. Walker (1974). "Rules versus Discretion: An Analysis of Income Stability and the Money Supply: Comment," *Journal of Money, Credit and Banking* 6(2): 235-261.
- Kotlikoff, Laurence J. (2010). *Jimmy Stewart is Dead: Ending the World's Ongoing Financial Plague with Limited Purpose Banking*. Hoboken, NJ: John Wiley & Sons, Inc.
- Kramer, Gerald (1971). "Short-term Fluctuations in U.S. Voting Behavior, 1896-1964," *American Political Science Review* 65(1): 131-143.
- Krugman, Paul (2009[1999]). The Return of Depression Economics and the Crisis of 2008. New York, NY: W.W. Norton & Company.
- Krugman, Paul (2009b). "How Did Economists Get It So Wrong?" *The New York Times*. September 2<sup>nd</sup>.
- Kydland, Finn E. and Edward C. Prescott (1977). "Rules Rather than Discretion: The Inconsistency of Optimal Plans," *Journal of Political Economy* 85(3): 473-492.
- Kydland, Finn E. and Mark A. Wynne (2002). "Alternative Monetary Constitutions and the Quest for Price Stability," *Economic & Financial Policy Review*, Federal Reserve Bank of Dallas 1(1): 1-19.
- Leeson, Peter T. and J. Robert Subrick (2006). "Robust Political Economy," *Review of Austrian Economics* 19: 107-11.

Levin, Fred J. and Ann-Marie Meulendyke (1982). "Monetary Policy: Theory and Practice, A Comment by Fred J. Levin and Ann-Marie Meulendyke," *Journal of Money, Credit and Banking* 14(3): 399-403.

- Lombra, Raymond E. and Nicholas Karamouzis (1993). "A Positive Analysis of the Policy-Making Process at the Federal Reserve," in T. Mayer (Ed.), *The Political Economy of American Monetary Policy*. New York: Cambridge University Press pp. 181-195.
- Long, Norton E. (1949). "Power and Administration," *Public Administration Review* 9(4): 257-264.
- Lupia, Arthur and Mathew D. McCubbins (1994). "Who Controls? Information and the Structure of Legislative Decision Making," *Legislative Studies Quarterly* 19(3): 361-384.
- Madison, James (2001[1788]). "No. 51," in George W. Carey and James McClellan's (eds) *The Federalist*. Indianapolis, IN: Liberty Fund Inc.
- Mankiw, Gregory N. and Matthew Weinzierl (2011). "An Exploration of Optimal Stabilization Policy," Brookings Papers on Economic Activity 42(1): 209-272.
- Mayer, Thomas (1993a). "Introduction," In Thomas Mayer's (Ed) *The Political Economy* of American Monetary Policy. New York, NY: The University of Cambridge Press pp. 1-11.
- Mayer, Thomas (1993b). "Minimizing Regret: Cognitive Dissonance as an Explanation of FOMC Behavior," in Thomas Mayer's (Ed.) *The Political Economy of American Monetary Policy*. New York, NY: Cambridge University Press pp. 241-254.

Mayer, Thomas and Thomas Willett (1988). "Evaluating Proposals for Fundamental

Reform," In Thomas Willet's (Ed.) *Political Business Cycles: The Political Economy of Money, Inflation, and Unemployment.* Durham, NC: Duke University Press pp. 399-423.

- McCallum, Bennett T. (1997). "Crucial Issues Concerning Central Bank Independence," Journal of Monetary Economics 39(1): 99-112.
- McChesney, Fred S. (1987). "Rent Extraction and Rent Creation in the Economic Theory of Regulation," *The Journal of Legal Studies* 16(1): 101-118.
- McCubbines, Matthew, and Talbot Page (1986). "The Congressional Foundations of Agency Performance," *Public Choice* 51(2): 173-190.
- McCubbins, Matthew, and Thomas Schwartz (1984). "Congressional Oversight Overlooked: Police Patrols vs. Fire Alarms," *American Journal of Political Science* 28 (1): 165-179.
- Meiselman, David I. (1986). "Is There a Political Monetary Cycle?" *Cato Journal* 6(2): 563-579.
- Meltzer, Allan H. (2003). *A History of the Federal Reserve Volume 1: 1913-1951*. Chicago, IL: The University of Chicago Press.
- Mishkin, Fredric S. (2011a). "Over the Cliff: From the Subprime to the Global Financial Crisis," *Journal of Economic Perspectives* 25(1): 49-70.
- Mishkin, Fredric S. (2011b). "Monetary Policy Strategy: Lessons from the Crisis," NBER Working Paper #16755.

Mishkin, Fredric S. (2011b). "Politicians are Threatening the Fed's Independence," Wall

*Street Journal*, September 29, 2011. Retrieved March 22, 2012 online. Available: <u>http://</u>online.wsj.com/article/

SB10001424052970204831304576597200646525870.html#printMode

- Modigliani, Franco (1964). "Some Empirical Tests of Monetary Management and of Rules versus Discretion," *Journal of Political Economy* 72(3): 211-245.
- Moe, Terry M. (1982). "Regulatory Performance and Presidential Administration," *American Journal of Political Science* 26(2): 197-224.
- Morris, I. (2002). *Congress, the President, and the Federal Reserve*. Ann Arbor: University of Michigan Press.
- Mueller, Dennis C. (1976). "Public Choice: A Survey," *Journal of Economic Literature* 14(2): 395-433.
- Nordhaus, William (1975). "The Political Business Cycle," *Review of Economic Studies* 42(2): 169-190.
- O'Driscoll, Gerald P. (1986). "Deregulation and Monetary Reform," *Economic Review*, Federal Reserve Bank of Dallas (July): 19-31.
- Pack, Janet Rothenberg (1987). "The Political Policy Cycle: Presidential Effort vs. Presidential Control," *Public Choice* 54(3): 231-259.
- Peltzman, Sam (1976). "Toward a More General Theory of Regulation," *Journal of Law and Economics* 19(2): 211-240.
- Pennington, Mark (2011). Robust Political Economy: Classical Liberalism and the Future of Public Policy. Northampton, MA: Edward Elgar Publishing Inc.
  Phillips, Ronnie J. (1995). The Chicago Plan & New Deal Banking Reform. Armonk,

NY: M. E. Sharpe, Inc.

- Poole, William (1999). "Monetary Policy Rules?" *Review*, Federal Reserve Bank of St. Louis March/April: 3-13.
- Posner, Richard A. (2009). A Failure of Capitalism: The Crisis of '08 and the Descent into Depression. Cambridge, MA: Harvard University Press.
- Pozsar, Zoltan, Tobias Adrian, Adams Ashcraft, and Hayley Boesky. (2010). "Shadow Banking," *Federal Reserve Bank of New York* Staff Report No. 458.
- Reifschneider, David L., David J. Stockton, and David W. Wilcox (1997). "Econometric
   Models and the Monetary Policy Process," *Carnegie-Rochester Conference Series on Public Policy* 47(1): 1-37.
- Roberts, Alasdair (2010). *The Logic of Discipline: Global Capitalism and the Architecture of Government*. New York, NY: Oxford University Press.
- Romer, David (1989). "Comment on Bosworth," *Brookings Papers on Economic Activity* 1(1): 114-119.
- Rourke, Francis E. (1984). *Bureaucracy, Politics, and Public Policy*, 3<sup>rd</sup> ed. Boston, MA: Little Brown and Company Publishers.
- Schularick, Mortiz and Alan M. Taylor (2011). "Credit Booms Gone Bust: Monetary Policy, Leverage Cycles and Financial Crises, 1870-2008," NBER Working Paper #15512.
- Selgin, George A. (1988). *The Theory of Free Banking: Money under Competitive Note Issue*. Lanham, MD: Rowman & Littlefield.

Selgin, George, William D. Lastrapes and Lawrence H. White (2010). "Has the Federal

Reserve Been a Failure?" CATO Working Paper.

- Selgin, George and Lawrence H. White (1994). "How Would the Invisible Hand Handle Money? *Journal of Economic Literature* XXXII(4): 1718-1749.
- Shleifer, Andrei and Robert W. Vishny (1998). *The Grabbing Hand: Government Pathologies and their Cures*. Cambridge, MA: Harvard University Press.
- Simons, Henry C. (1936). "Rules versus Authorities in Monetary Policy," *Journal of Political Economy* 91(4): 589-610.
- Skidelsky, Robert (2009). Keynes: The Return of the Master. New York, NY: Public Affairs.
- Smith, Adam (1981[1776]). An Inquiry into the Nature and Causes of the Wealth of Nations. Indianapolis, IN: Liberty Fund Inc.
- Smith, Vera C. (1990[1936]). *The Rationale of Central Banking and the Free Banking Alternative*. Indianapolis, IN: Liberty Fund Inc.
- Stigler, George J. (1971) "The Theory of Economic Regulation," *The Bell Journal of Economics and Management Science* 2(1): 3-21.
- Stokey, Nancy L. (2002). "Rules vs. Discretion' After Twenty-five Years," *NBER Macroeconomics Annual* 17: 9-45.
- Sumner, Scott, James D. Hamilton, George A. Selgin and Jeffrey Rogers Hummel (2009). "Monetary Lessons from the Not-So-Great Depression," *Cato Unbound*. September.
- Svensson, Lars E.O. (2002). "Rules vs. Discretion' after Twenty-Five Years: Comment," *NBER Macroeconomics Annual* 17: 54-62.

- Svensson, Lars E.O. (2012). "Practical Monetary Policy: Examples from Sweden and the United States," NBER Working Paper No. 17823.
- Taleb, Nassim N. (2007). *The Black Swan: The Impact of the Highly Improbable*. New York, NY: Random House Publishers.
- Taleb, Nassim N. (2010a). *The Black Swan: The Impact of the Highly Improbable*, 2<sup>nd</sup>
   Edition. New York, NY: Random House Publishers.
- Taleb, Nassim N. (2010b). "Antifragility, Robustness, and Fragility, Inside the 'Black Swan' Domain," SSRN Working Paper.
- Taylor, John B. (1983). 'Comments: 'Rules, Discretion and Reputation in a Model of Monetary Policy' by Robert J. Barro and David B. Gordon," *Journal of Monetary Economics* 12(1): 123-125.
- Taylor, John B. (1993). "Discretion versus policy rules in practice," *Carnegie-Rochester Conference Series on Public Policy* 39(1): 195-214.
- Taylor, John B. (Ed). (1999). Monetary Policy Rules. Chicago, IL: Chicago University Press.
- Taylor, John B. (2009). Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis. Stanford, CA: Hoover Institution Press.
- Timberlake, Richard H. (1993). *Monetary Policy in the United States: An Intellectual and Institutional History*. Chicago, IL: University of Chicago Press.
- Tufte, Edward R. (1975). "Determinants of the Outcomes of Midterm Congressional Elections," *American Political Science Review* 69(3): 812-826.

Tullock, Gordon (1967). "The Welfare Costs of Tariffs, Monopoly, and Theft," *Western Economic Journal* 5(3):224-232.

Tullock, Gordon (2005). Bureaucracy. Indianapolis, IN: Liberty Fund, Inc.

Wagner, Richard (1977). "Economic Manipulation for Political Profit: Macroeconomic Consequences and Constitutional Implications," *Kyklos* 30 (3): 395-410.

Wagner, Richard (1986). "Central Banking and the Fed, A Public Choice Perspective," *Cato Journal* 6(2): 519-543.

- Weingast, Barry R. (1984). "The Congressional-Bureaucratic System: A Principal Agent Perspective (with applications to the SEC)," *Public Choice* 44(1): 147-191.
- Weingast, Barry R. and William J. Marshall (1988). "The Industrial Organization of Congress; or, Why Legislatures, Like Firms, Are Not Organized as Markets," *Journal of Political Economy* 96(1): 132-163.
- Weingast, Barry R. and Mark J. Moran. (1983). "Bureaucratic Discretion or Congressional Control? Regulatory Policymaking by the Federal Trade Commission," *Journal of Political Economy* 91(5): 765-800.
- Weintraub, Robert E. (1978). "Congressional Supervision of Monetary Policy," *Journal* of Monetary Economics 4: 341-362.
- White, Lawrence (1988a). "Depoliticizing the Supply of Money," In Thomas Willet's (Ed.) *Political Business Cycles: The Political Economy of Money, Inflation, and Unemployment*. Durham, NC: Duke University Press pp. 460-478.

White, Lawrence (1988b). "Problems Inherent in Political Money Supply Schemes: Some

Historical and Theoretical Lessons," In Thomas Willet's (Ed.) *Political Business Cycles: The Political Economy of Money, Inflation, and Unemployment.* Durham, NC: Duke University Press pp. 301-319.

- White, Lawrence (1989). Competition and Currency: Essays on Free Banking and Money. New York, NY: New York University.
- White, Lawrence (1995[1984]). *Free Banking in Britain: Theory, Experience and Debate, 1800-1845.* London: Institute for Economic Affairs.
- Willett, Thomas D., Ed. (1988). Political Business Cycles" The Political Economy of Money, Inflation, and Unemployment. Durham, NC: Duke University Press.
- Willett, Thomas D. and Edward Keen (1993). "Studying the Fed: Toward a Broader
  Public-Choice Perspective," In Thomas Mayer's (Ed) *The Political Economy of American Monetary Policy*. New York, NY: University of Cambridge Press pp. 13-25.

Woll, Peter (1977). American Bureaucracy. New York, NY: Norton Publishers.

- Wood, Dan B. and Richard W. Waterman (1991). "The Dynamics of Political Control of the Bureaucracy," *The American Political Science Review* 85(3): 801-828.
- Woodford, Michael (2012). "Inflation Targeting and Financial Stability," NBER Working Paper No. 17967.
- Yellen, Janet L. (2011). "Assessing Potential Financial Imbalances in an Era of Accommodative Monetary Policy," Remarks presented at 2011 International Conference: Real and Financial Linkage and Monetary Policy, Bank of Japan.