

# Dissonance Within the Federal Reserve System

Paul D. Mueller  
Department of Economics  
George Mason University  
Fairfax, VA 22030

719-650-3725  
[Pmuelle4@gmu.edu](mailto:Pmuelle4@gmu.edu)  
[www.PaulDMueller.com](http://www.PaulDMueller.com)

## Abstract

This paper analyzes the institutional framework of the Federal Reserve System. Contrary to claims that the Fed is dominated solely by private interests or by political considerations, I argue that it is a mixture of both because the Board of Governors is a government agency while the district banks are private organizations. Their differing governance and accountability structures support that distinction. Yet the idea that district banks are private organizations is not widely accepted. I use budget and employment data for the district banks and the Board of Governors from the past 25 years to support my claim. I also argue that we are likely to get better monetary policy and financial oversight from the district banks than from the Board of Governors because the banks have better accountability and knowledge.

Keywords: Federal Reserve, District Banks, Board of Governors, Bureaucracy, Monetary Policy, Governance

JEL Codes: E50, E58, N22

## 1) Introduction: The Federal Reserve and Its Independence

Monetary developments during the past few decades have, I believe, been determined far more by the institutional structure of the Federal Reserve and external pressures than by the intentions, knowledge, or personal characteristics of the persons who appeared to be in charge. (Friedman 1985:4)

Since the 2008 financial crisis, the Federal Reserve System has had an increasingly prominent role in financial markets. Over the past five years the “Fed” has grown significantly in size as well as in its influence over the performance of various financial markets. Providing support to the banking system during the crisis more than doubled the Fed’s balance sheet as it gave liquidity to banks (and nonbanks) and removed “toxic” mortgage-backed securities from their balance sheets. The Fed’s influence has also grown significantly due to their broader regulatory role in the banking system under the Dodd-Frank financial reform bill. Many bankers, investors, and pundits try to guess what the “Fed” will do next because billions of dollars are often at stake.

But here are a few questions to consider: What are people referring to when they talk about the “Fed?” Is it a single unified organization? How does it make decisions and how does it carry them out? People clearly believe that the chairman of the Board of Governors wields a lot of power because Bernanke’s (and soon to be Yellen’s) name appears frequently in conversations about the “Fed.” Their belief is not without some justification (Silber 2012). But just how much does the chairman influence monetary policy and what constraints does he face? A brief synopsis of the Federal Reserve System will answer some of these questions.

There are three major components of the Federal Reserve System. First, there is the Board of Governors, which is a government agency based in Washington, DC. The Board is composed of seven governors, including the chairman, and thousands of staff. Second, there are twelve district or regional Federal Reserve banks. These are not branches of the Board of

Governors. They are privately owned banks with separate financial statements and boards of directors. Third, there is the Federal Open Market Committee (FOMC) which meets every six weeks to determine monetary and other general policy for the Federal Reserve System. The committee has twelve voting members: the seven governors, the president of the New York Fed, and four other district bank presidents who serve yearly on a rotating basis. The chairman of the Board of Governors is also the chairman of the FOMC. When people talk about the Fed, they are usually referring to decisions made by the FOMC about interest rate targets, lending, or bond-buying programs; and they often attribute those decisions to the chairman.

One of the primary disputes regarding the Federal Reserve is whether it operates “independently” of political considerations. The literature on Fed independence is divided between those who claim that it is indeed independent (Wallace & Warner 1985, Maier 2002, Caporale & Grier 2005, Blinder 2010) and those who claim that it is not (Friedman 1985, 2009, Timberlake 1993, Chappell, McGregor, & Vermilyea 2005, Meltzer 2009, White 2012, Selgin, Lastrapes & White 2013, Boettke & Smith 2013a, 2013b). The conflicting results of these studies about the independence of the Fed should not be surprising for two reasons. First, the subject is complex and there are multiple methods of defining independence. Second, although some scholars have addressed the public-private nature of the Federal Reserve System (Rowe 1966, Woolley 1986), most of the independence studies fail to distinguish sufficiently between the Board of Governors, the FOMC, and the district banks. This paper contributes to the independence literature by further clarifying the public and private parts of the system and introducing new evidence to support that distinction.

Part of what makes this topic so interesting and convoluted is that the Board of Governors and the district banks are two distinct and different *types* of organizations. I show that

the twelve district banks do, in fact, behave more like private organizations than like government agencies. In contrast, the Board can be characterized as a political organization because of its governance structures and because it operates according to political/bureaucratic principles. When I use the term “Fed” throughout the rest of the paper, I am either referring to the entire Federal Reserve System or to the FOMC.

The paper proceeds in the following fashion. I develop the claim that the Board of Governors is a government agency in section two. That section also raises several objections to treating the district banks as private organizations. Section three answers those objections and offers a series of arguments as well as evidence that we should treat the district banks as private entities. In section four I address the alternate theory that the Fed is really a single organization and that recent trends merely show the Board centralizing its operations. Section five concludes with thoughts about recent trends in the Federal Reserve System and the implications of those trends given its public-private nature.

## **2) The Board of Governors as a Government Organization**

Though few economists, if pressed on the issue, would call the Board of Governors a private organization, many would argue strongly that it is independent (Wallace & Warner 1985, Maier 2002, Caporale & Grier 2005, Blinder 2010). But independent from what? It is true that Congress has less control over the Federal Reserve than it has over other government agencies. But does that make the Fed an objective body that is solely, or even primarily, interested in improving the economy? If they are a government agency, then they face bureaucratic incentives to expand their authority, staff, and budget. Over the past 25 years the Board has done just that (Figures 1-4, Table 1).

There are many reasons why the Board qualifies as a government agency. Starting at the beginning, the Board of Governors was created and modified by acts of Congress. It reports directly to Congress twice a year. The Board is also a regulatory agency, responsible not just for carrying out regulations, but also for creating them. No one owns the Board of Governors. The support staff for the board are counted as government employees and the Board has a government (.gov) website. The closest thing to a residual claimant is the Treasury, which receives all the profits from the Federal Reserve System. Finally, the governors themselves are political appointees of the President and confirmed by the Senate.

The Federal Reserve Act of 1913 created the Federal Reserve Board primarily to provide guidance to the district banks. Both the Treasury Secretary and the Comptroller of the Currency were members. The Board had few regulations to administer and acted more like an advisory than a supervisory board. There was no “monetary policy” to speak of; only promoting an “elastic currency” by rediscounting bills. It was later modified under the Banking Act of 1935 to become the Board of Governors of the Federal Reserve System. That Act also created the FOMC. Now the Board oversees the entire system through the FOMC and regulates not only the district banks, but the entire commercial banking industry.

A second governmental aspect of the Board is its regulatory authority. It has always had some oversight over its member banks but the Dodd-Frank financial reform bill increased its authority, not only to enforce regulations but also to create regulations for the financial sector. The ability to create regulations falls under the purview of government, not markets. As a government regulator, the Board is likely to see banks as objects to be regulated or corrected, not as customers.

A third important reason that the Board of Governors should be considered as part of the Federal Government is its ownership structure. No one “owns” the Board. It does not report to a board or to shareholders. By law the Board must report to Congress twice a year about its monetary policies and its outlook on the economy. But even Congress has little knowledge or authority to direct the Board’s day to day activity. The residual claimant of the Board’s revenues is the U. S. Treasury, though it also exercises no direct authority over the Board. Like most of the Federal Government, the Board of Governors is located in Washington, D. C. and it interacts with other government agencies; not only with the Treasury but also with the FDIC, the SEC, the Comptroller of the Currency, and others.<sup>1</sup>

Fourth, and perhaps most importantly, governors are appointed for political reasons. Why else would the current President flagrantly disregard the geographic requirements of section 10 of the Federal Reserve Act and appoint two governors who are technically not eligible to be governors (Calabria 2012)? Section 10 states:

In selecting the members of the Board, not more than one of whom shall be selected from any one Federal Reserve district, the President shall have due regard to a fair representation of the financial, agricultural, industrial, and commercial interests, and geographical divisions of the country. (National Bank Act 1935)<sup>2</sup>

Governors are chosen by the President and confirmed by the Senate for fourteen year terms. This means that the Board of Governors’ is more likely to be oriented towards politics and Washington than towards economic efficiency or the interests of the whole country.

---

<sup>1</sup> Congressional testimony about the Financial Services Regulatory Relief Act of 2006 by a governor of the Fed, and staff from the Comptroller and FDIC offices all had similar proposals. The Comptroller’s testimony even said that these agencies met regularly to discuss regulations.

<sup>2</sup> Also, [section 10](#) of the Federal Reserve Act. Jeremy Stein and Jerome Powell were both appointed to be governors by President Obama in 2012. Professor Stein is the second governor from the Boston Fed district and Mr. Powell is the second governor from the Richmond Fed district.

There are many examples of political influence on the Board. U. S. Presidents can pressure governors to resign before their term ends (Kettl 1986, 75; Meltzer 2009, 135). Every chairman of the Board of Governors has caved to political pressure from Congress at some point during their tenure (Boettke & Smith 2013b). I add more evidence for this political orientation by examining the growth of the Board's budget and staff over the past 25 years.

Another element related to the fact that governors are political appointees is the political selection mechanism. Rather than being based solely on merit, governors need to have political connections. Both parties have a history of nominating moderate governors who generally support more expansive monetary policy over contractionary monetary policy. Self-selection among governors also matters. Those who are optimistic about the Fed's ability to manage the economy are far more willing to join the Board than skeptics are. These selection mechanisms have led, in part, to the inflationary drift over the past 100 years documented by Selgin, Lastrapes, & White (2013).

### ***Similarities Between District Banks and the Board of Governors***

Arguing that the district banks act as private organizations may seem like a losing proposition. The whole system, including the district banks, was created by Congress and it has a unique relationship with the federal government. Even some of the district banks emphasize how they serve the "public interest." As the Dallas Fed's website puts it: "The Fed has a unique public/private structure that operates independently within government but not independent of it" (Dallas Federal Reserve Bank 2013). Furthermore, the Board of Governors, which supervises and regulates the district banks, is clearly a government agency.

Therefore, one would be tempted to think that the district banks are part of the government as well because they share many of the characteristics of the Board and because they

are regulated by the Board. Their similarities with the Board include: being created by an act of Congress, implementing banking regulations (although they cannot create new regulations like the Board can), remitting their profits to the Treasury, and having the unique government privilege of issuing government liabilities in exchange for goods, services, and assets.

Besides their similarities, the district banks are regulated by the Board of Governors and the FOMC (which is controlled by the Board), in the following ways: which regulations to enforce, what penalty and discount rates to charge, whether to purchase or sell certain securities, appointment of three of the bank's nine directors (Class C), including the chairman and vice chairman, approval of the bank President, approval of the budget, and often approval of new programs or new technology.

Because of their similarities and the amount of control exerted by the Board of Governors, it is easy to attribute a minor and passive role to the district banks and to treat them as extensions of the Board. According to that treatment, the trends I highlight in the next section could be explained by the Board taking power and resources from the district banks in order to improve its own status or centralize its operations. I give several reasons for rejecting this theory, including its incentive incompatibility and its lack of evidence, in section four. But in the next section I argue that the district banks should be modeled as highly regulated private firms—and that the character of their organization has important ramifications for monetary policy and banking regulation. In the process I also reinforce my argument that the Board of Governors is just another bureaucratic government agency with a unique privileges and little oversight.

### **3) District Banks as Private Enterprises**



How do the district banks differ from the Board of Governors? Can we really consider them to be distinct organizations? Although they are certainly not paragons of private enterprise, the way they are governed and the way they behave suggest that they are, in fact, private entities. Despite the similarities, the district banks differ from the Board in critical ways. They compete for customers in some of the services that they provide; they are accountable to their member banks, not to a legislative body; they implement regulation differently than the Board does; and they have incentives to introduce new technology and to improve processes due to formal and informal competition.

After the 1980 Monetary Control Act (MCA), the district banks had to charge for the banking services that they provided. Many of these services, particularly payment-clearing services, are available from private, non-Fed alternatives. This provides the district banks with incentives to keep costs low, improve the services they offer, and cultivate relationships with their customers. Although all depository institutions needed to hold reserves at the Fed, according to the MCA, there was still competition for payment clearing services. Member banks also have the option of moving from one district to another if they are dissatisfied with their treatment by their local district bank.<sup>3</sup> We can expect that district banks will provide useful services, not just onerous regulatory enforcement, in order to keep their customers.

The regulatory role of the district banks differs, too, even though it is handed down from the Board. Regulations can be enforced by two different groups: markets or governments. When governments enforce regulations, there is little room for appeal or cooperation. Market enforcement of regulation, however, does not mean that businesses can choose whether or not to

---

<sup>3</sup> Dissatisfaction with the district Fed bank is not likely to be the sole, or even the primary, reason a bank would move. I am arguing, however, that its dissatisfaction is not entirely trivial and that its treatment by the district bank may be enough to tip the scales towards moving. Therefore competition exists, even if only on a small margin.

comply with a particular regulation, but that they have some flexibility in how they comply. Private entities prefer market regulation to government regulation because the market regulators, such as auditing firms or professional associations, have strong incentives to work with the entities that they are regulating and to provide some value to them. If they do not, their customers can go to other market regulators. District banks provide something akin to market regulation.

A pertinent example of market versus government enforcement of regulation can be found in how the district Fed banks switched to external auditing. The Board of Governors used to send its own auditors to district Fed banks but this was often not a profitable or pleasant experience for the banks.<sup>4</sup> Eventually one or two of the district banks pushed for using outside auditing firms instead of the Board of Governors. When they did use an outside auditing firm, their experience improved so much that the rest of the district banks quickly followed suit.<sup>5</sup> Although they were still fulfilling a regulatory requirement, the flexibility of having multiple auditing firms to choose from made their interaction more like a market transaction.

District Fed banks are privately owned by their member banks. Although shares in the district bank cannot be transferred and yield a fixed return, having shareholders that it must pay dividends to ultimately makes district banks accountable to private organizations. District banks are governed by businessmen, bankers, and other community leaders rather than by political appointees or long-time Board staff with political connections. The Board only appoints three of nine directors for each bank. Furthermore, there are certain geographic restrictions on who the Board can appoint. The member banks of each district elect the other six directors. The board of

---

<sup>4</sup> Conversation with Jerry Jordan, former President of the Cleveland Fed (11/1/13).

<sup>5</sup> Ibid.

directors then elects the President of the bank. Control of the board of directors, and therefore control of the district bank, does not come from legislatures or populist elections, but from the industry the district banks are serving; which are also its owners.

Finally, district banks are less centralized than the Board. They are each responsible for a different region of the country. They have independent staff, different customers, and therefore they provide different types of education, outreach, and services to best meet the needs of their local communities. All of these characteristics suggest that district banks act like private entities and should be treated as such.

### *Empirical Evidence*

But we cannot determine how we should model the district banks purely from a theoretical or a priori approach. Therefore, I look at operating budget and employment data from the past 25 years to “test” whether district banks are more like private organizations or more like government agencies. Given all the talk about the bureaucracy and growth of the “Fed” in recent years, as well as all the evidence for it being a government agency, employment is only higher for the Board of Governors, and the Minneapolis Fed, than it was 25 years ago.<sup>6</sup> Employment declined in the rest of the district banks; hardly the mark of government agencies (Figure 1).

Similarly striking is the fact that the operating budgets of the district banks have only grown at a moderate pace, in real terms, over the past 25 years (Table 1, Figure 3). Three district banks clearly grew more than the other nine, but not nearly to the extent to which the Board outgrew them (Figures 2 & 3). For example, the operating budget of the Board of Governors grew at a yearly rate of 7.05% for a total of 449% over 25 years. And it is budgeted to grow to

---

<sup>6</sup> Over the past 25 years Minneapolis’ employment has grown by 5%. Part of the reason for this is that Minneapolis had the fewest employees of all the district banks in 1987.

519% in 2013.<sup>7</sup> The average growth of the district banks, on the other hand, was 4.27% yearly and 184.4% total.

Unlike the district banks, the Board saw high and consistent growth in employment and operating budgets year after year (Table 1). This is not surprising given that it does not have to worry about satisfying customers or providing valuable services. The growth of its operating budget and employment over the past 25 years confirms the governmental nature of the Board (Figure 1, Figure 2). With minor exceptions, its growth follows a bureaucratic trajectory almost perfectly; consistent growth year after year, adding to the base of the previous year. Consider Figure 4, which plots the growth of Federal outlays and Board outlays after being normalized to 100 in 1986. If anything, the Board's growth is more continuous and inexorable than growth in Federal spending! This is also not surprising given that it appropriates its own funds without need of Congressional approval.

Unlike government agencies, district banks introduce technology on their own initiative, in order to provide better services to their customers at lower cost. It is rare for government agencies to advocate new technology. Usually they are well behind the curve of innovation. And we do not see many examples where government agencies introduce new technology for the purpose, *and with the result*, of lowering their costs and budgets. Yet over the past 25 years there are several instances of the district banks doing just that. Check imaging, inter-district specialization, and external audits are just three examples (Bauer & Hancock 1993, 1995, Bauer & Ferrier 1996, Berger et al. 1996, Robert et al. 2004). But does this just show the Board

---

<sup>7</sup> Keep in mind that the Board historically undershoots its budget. For example, in 2011 the Board's actual expenses came in more than 7% under their "budgeted" amount. If it were to do so again, the size of its budget in 2013 relative to 1986 would only be 475%.

centralizing power at the expense of its subsidiaries, the district banks? In the next section I will argue that it does not.

#### **4) Contrasting Hypotheses**

To illustrate my arguments further, and to put lingering doubts to rest, I now consider a few alternative hypotheses and scenarios. What other plausible theories could explain the trends that I have highlighted? Or what would the world have to look like if the Board was not a government agency or if the district banks were not private organizations?

The most important alternate hypothesis claims that employment and operating budgets at the Board of Governors grew much faster than in the district banks because the banks are subsidiary parts of the Board. If the district banks are controlled by the Board and the FOMC, their private “ownership” is irrelevant. Here is the reasoning: the Board of Governors has been centralizing its operations by systematically extending its scope and influence while reducing the status of the district banks. This involves *both* increasing its resources while reducing or limiting those of the district banks. At first glance, that matches the trends pretty well. Yet this explanation has internal inconsistencies and implications that do not hold true in reality.

The aforementioned theory implies several things. Most obviously, it implies that the reduction in employment and the moderation of real budgetary growth for the district banks are the *direct result* of decisions made by the Board of Governors. Therefore, we should see a negative, but highly explanatory, relationship between changes in the district banks and changes in the Board of Governors since the Board is making decisions about both, presumably relative to one another. Testing for whether changes in the Board’s budget have any explanatory power

for the changes in district bank budgets fails to support this implication. I ran the following regressions ( $i$  represents particular district banks;  $i=1:12$ ):

should be negative and significant. There should also be a reasonable  $R^2$  value. But only the Cleveland Fed even approaches those criteria. Its relationship to the Board is  $-.1332$  but the  $R^2$  is only .

Another part of this centralization story requires that the Board take over the prerogatives and services of the district banks—transferring responsibility, and therefore authority and resources, to itself. Yet if we look at the past 25 years, there have been very few services transferred to the Board. The district banks still do most of what they did in 1986. They just do it more efficiently using new technology. The Board, on the other hand, still does not provide direct services to banks. Its growth has primarily been in the branches of research, regulatory oversight, and support staff. The past couple years have not been outside the historic trend, though that may change as Dodd-Frank is fully implemented and the Consumer Financial Protection Bureau becomes more established.

Since providing services to banks is the primary expense of the districts, and they still provide them, it cannot be the centralizing of those services leading to the trends of moderate budget growth and declining employment identified earlier. I am not claiming that there has been *no* centralization. Indeed, the trends suggest that the influence of the Board *must* be growing relative to the district banks. But I am saying that centralization is not the cause. The bureaucratic government incentives of the Board and the various forms of competition among the districts are driving these trends.

A third problem with the centralization theory is that it is internally inconsistent. If the Board is increasing its control of the Federal Reserve System because it wants more power and

influence, it will not focus on strengthening itself *at the expense* of the district banks, but only *relative* to them. If the Board maintains its dominant position in the Federal Reserve System, all else equal, it will want larger district banks beneath it. If the district banks are truly part of one Fed “kingdom,” the rulers do not want to reduce the size of their territory. They just want to make sure that they remain strong relative to their subsidiaries.

That is a big inconsistency. District banks have had declining employment and relatively low budget growth for 25 years. Even if there was an internal coup by the Board at some point, it surely would not have lasted 25 years! This story only makes sense if the district banks are *separate* kingdoms. Then reducing their scope implies increasing the scope of the Board. But we can only consider district banks to be separate if they are private entities, not government ones.

One last inconsistency with the centralization story is the troubling case of the New York Fed. If the Board was trying to centralize its power, why did they not clip the wings of the most powerful district bank? The New York Fed, if anything, has grown more influential in the past 5-10 years, not less. In my opinion, the New York Fed acts more like a government agency than all the other district banks because it has a permanent seat on the FOMC like the governors do and because it is the primary organization carrying out the directives of the FOMC, such as open-market operations. Because the New York Fed is tied so closely to the FOMC and the Board, its growth could be considered an example of the Board extending its influence through a part of its “kingdom,” while the other district banks remain more independent.

### ***Other Alternatives***

How would we expect district banks to behave if they were government agencies? They would have no significant incentive to reduce employment, improve efficiency, or keep their customers happy. We would expect something akin to the post office (without the perpetual

deficit problems). Although there are some similarities, the district banks have had employment *decline* over 25 years. How could that be when they do not have budget deficits to consider like the post office does? It is because they are privately governed, they compete with private organizations and with each other, and they have incentives to innovate.

We would also expect greater unanimity on the FOMC if the district banks were entirely dominated by the Board. Yet a well-established finding is that district bank presidents dissent from FOMC decisions far more frequently than Governors do; and they have a much stronger tendency to dissent in favor of tighter monetary policy (Woolley 1986: 63-64, Havilresky et al. 1990, 1991, Chappell et al. 2005).<sup>8</sup> Why would they have this tendency? Because “Banks, typically net *creditors*, are expected to lose from inflation, and thus systematically oppose it” (Woolley 1986: 71). This offers more evidence that the presidents of the district reserve banks are accountable to their member banks.

## **5) Conclusion**

This paper has addressed several common misconceptions about the Federal Reserve System. It is not a unitary organization but a composite one. When most people refer to the “Fed,” they are talking about the Chairman of the Board of Governors or the FOMC. The Board of Governors is not a private organization. It is a government agency—though with far less oversight and accountability than most government agencies. The district banks are not merely branches or subsidiaries of the Board (not yet at least). They sell services directly to banks and compete with private alternatives; they are owned by their member banks and directed by

---

<sup>8</sup> Esther George, the current president of the Kansas City Fed, exemplifies this finding. She has dissented from the FOMC’s monetary policy decisions at every meeting so far in 2013.



business and community leaders; and they have a strong history of introducing new technology, reducing costs, and reducing their employment—all uncharacteristic of government.

I have also argued that the preponderance of theory and evidence support the claim that district banks are private organizations and that the Board of Governors is a government organization. Over the past 25 years the Board has seen its employment increase by over 50% and its operating budget grow by 449%. In stark contrast, the district banks saw their total employment *fall* by an average of 25% and their operating budgets have only grown by 184% over the same time period (Table 1). This means that although both are lumped under the label of “the Fed,” in practice they have different incentives, goals, and accountability. These differences may have important implications for what monetary policy is chosen, how regulations are enforced, and which is more likely to act on useful knowledge and respond more quickly to the needs of the market and of their customers.

Finally, as I mentioned in the introduction, the Board has grown increasingly powerful. Its staff and its budget have grown tremendously, as have its authority and its discretion. What implications does this have for the Federal Reserve System and for society? Most likely the district banks will become less and less independent over time. As the Board forms a larger and larger share of the overall system, its influence on the district banks will probably grow. And since it wields veto power over their budgets and control of the FOMC, district presidents do not have the *de jure* or the *de facto* power to reverse the Board’s growth. As the Board also applies greater informal pressure to district banks, we should see dissent from reserve bank presidents decline over time. But uniform policies implemented by the Board are less likely to meet the various needs of local areas than are policies made by district banks because the Board lacks adequate knowledge and incentives. This suggests that as the “Fed” continues increasing its

power and discretion, in the Board of Governors, it will implement less effective policies and have less accountability.

## References

- Bauer, P. W., & Hancock, D. (1993). The efficiency of the Federal Reserve in providing check processing services. *Journal of Banking & Finance*, 17(2), 287-311.
- Bauer, P. W., & Hancock, D. (1995). Scale economies and technological change in Federal Reserve ACH payment processing. *Economic Review-Federal Reserve Bank of Cleveland*, 31, 14-29.
- Bauer, P. W., & Ferrier, G. D. (1996). Scale economies, cost efficiencies, and technological change in federal reserve payments processing. *Journal of Money, Credit and Banking*, 28(4), 1004-1039.
- Berger, A. N., Hancock, D., & Marquardt, J. C. (1996). A framework for analyzing efficiency, risks, costs, and innovations in the payments system. *Journal of Money, Credit and Banking*, 28(4), 696-732.
- Blinder, A. S. (2010). How central should the central bank be? *Journal of Economic Literature*, 48(1), 123-133.
- Boettke, P. J., & Smith, D. J. (2013a). Federal Reserve Independence: A Centennial Review. *GMU Working Paper in Economics* No. 12-42.
- Boettke, P. J., & Smith, D. J. (2013b). A Century of Influence: An Anecdotal History of Compromised Federal Reserve Independence. *GMU Working Paper in Economics* No. 12-40.
- Calabria, M. (2012). On New Fed Nominations: Are There No Keynesians in Flyover Country? *Cato Institute*: [Link](#).
- Caporale, T., & Grier, K. (2005). How smart is my dummy? Time series tests for the influence of politics. *Political Analysis*, 13(1), 77-94.
- Chappell, H. W., MacGregor, R. R., & Vermilyea, T. A. (2005). *Committee Decisions On Monetary Policy: Evidence from Historical Records of the Federal Open Market Committee*. MIT press.
- Dallas Federal Reserve Bank. (2013). *Understanding the Fed*. [Link](#)
- Friedman, M. (1985). The case for overhauling the Federal Reserve. *Challenge*, 28(3), 4-12.
- Friedman, M. (2009). *Capitalism and freedom*. University of Chicago press.
- Havrilesky, T. M., & Schweitzer, R. (1990). A theory of FOMC dissent voting with evidence from the time series. *The political economy of American monetary policy*, 197.
- Havrilesky, T., & Gildea, J. A. (1991). The policy preferences of FOMC members as revealed by dissenting votes: comment. *Journal of Money, Credit and Banking*, 23(1), 130-138.
- Kettl, Donald F. (1986). *Leadership at the Fed*. New Haven: Yale University Press.
- Maier, P. (2002). Rhetoric and action: What are central banks doing before elections?. *Public Choice*, 112(3-4), 235-258.
- Meltzer, Allan H. (2009). *A History of the Federal Reserve* Volume 2, Book 1, 1951-1969. Chicago: The University of Chicago Press.

National Bank Act as Amended The Federal Reserve Act and Other Laws Relating to National Banks  
(1920) [Section 136](#)

Robert, M., Bauer, P. W., & Sickles, R. (2004). Scale economies, scope economies, and technical change in Federal Reserve payment processing. *Journal of Money, Credit, and Banking*, 36(5), 943-958.

Rowe, J. Z. (1966). *The public-private character of United States central banking*. Rutgers University Press.

Silber, W. L. (2012). *Volcker: The Triumph of Persistence*. Bloomsbury Publishing USA.

Selgin, G., Lastrapes, W. D., & White, L. H. (2012). Has the Fed been a failure?. *Journal of Macroeconomics*, 34(3), 569-596.

Timberlake, R. H. (1993). *Monetary policy in the United States: an intellectual and institutional history*. University of Chicago Press.

Wallace, M. S., & Warner, J. T. (1985). Fed policy and presidential elections. *Journal of Macroeconomics*, 6(1), 79-88.

White, L. H. (2012). *The clash of economic ideas: The great policy debates and experiments of the last hundred years*. Cambridge University Press.

Woolley, J. T. (1986). *Monetary politics: The Federal Reserve and the politics of monetary policy*. Cambridge University Press.

# Figures

Figure 1: Changes in employment for the district banks and the Board

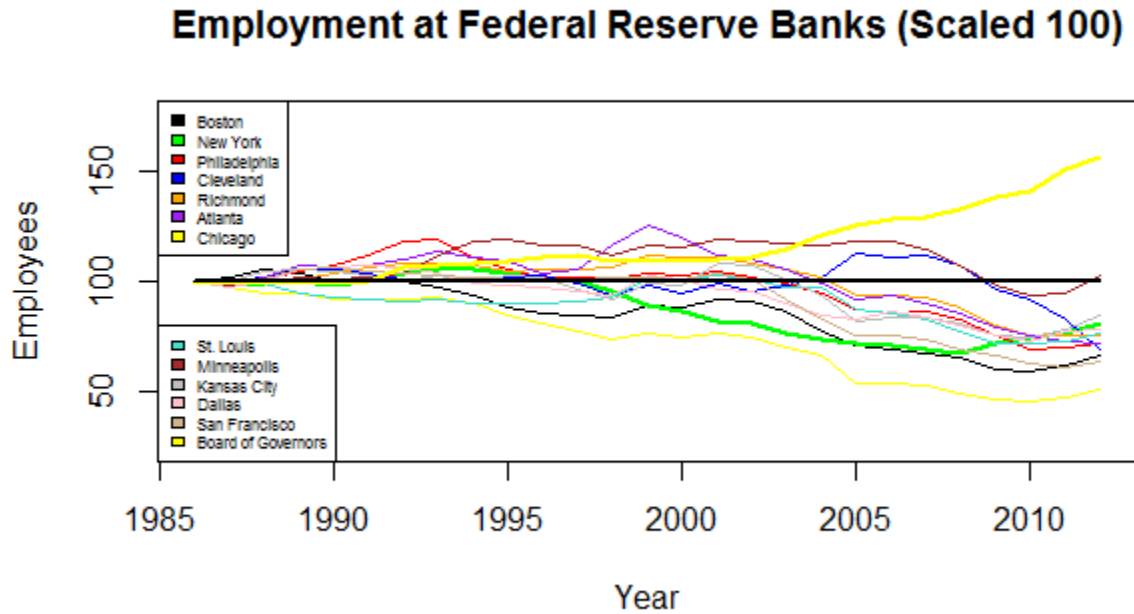
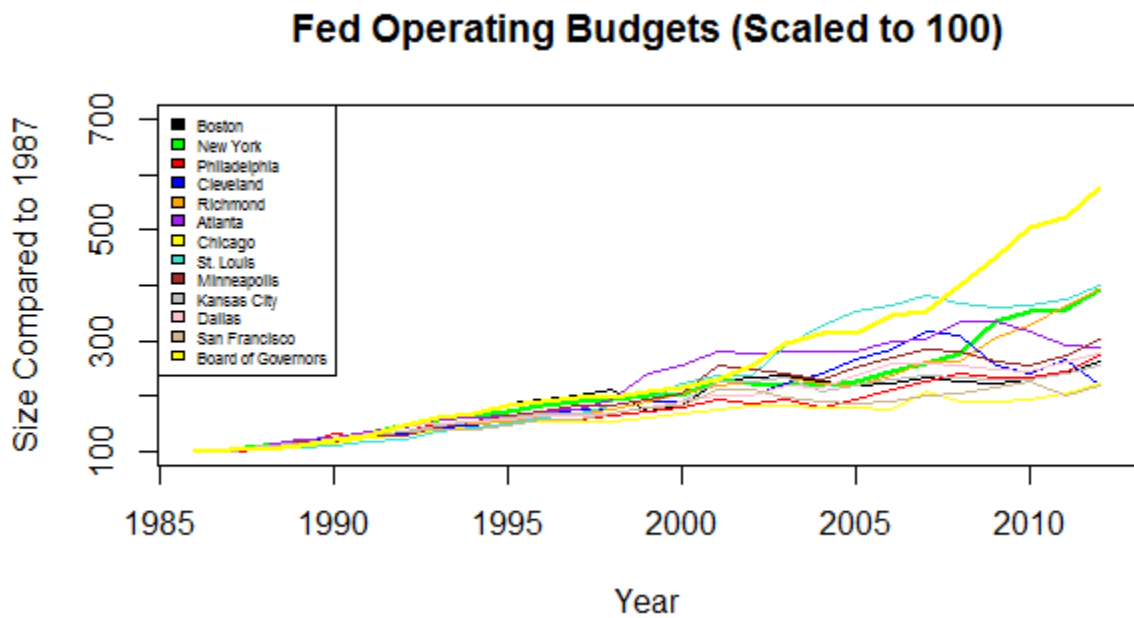
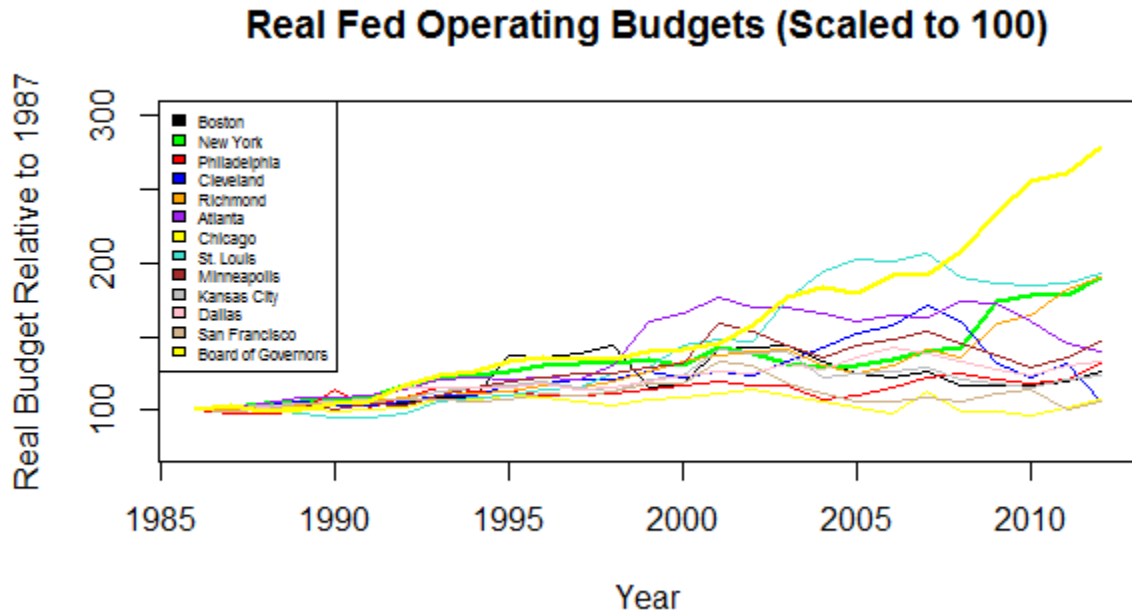


Figure 2: Changes in operating budgets for the district banks and the Board

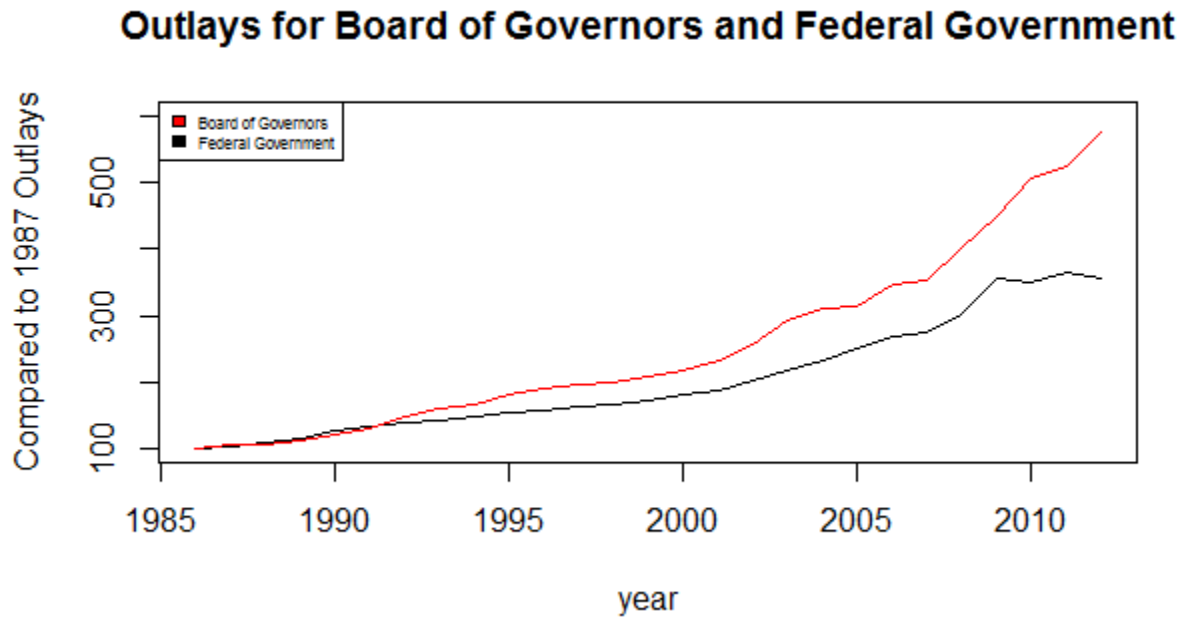




**Figure 3: Changes in real operating budgets for the district banks and the Board**



**Figure 4: Outlays for Board of Governors and the Federal Government**



# Tables

**Table 1: Employment and Budget Growth Since 1986 (District Banks & Board)**

	Percentage Growth in Employment 1987-2012	Percentage Growth in Operating Budgets 1987-2012	Average Yearly Budget Growth
Boston	-34.6%	156.2%	3.83%
New York	-17.5%	279%	5.47%
Philadelphia	-27.3%	175.5%	4.14%
Cleveland	-30.8%	112.5%	3.06%
Richmond	-22.9%	285%	5.54%
Atlanta	-27.1%	178.5%	4.18%
Chicago	-47.9%	115.5%	3.12%
St. Louis	-23.5%	285.5%	5.55%
Minneapolis	5.1%	192.8%	4.39%
Kansas City	-15.6%	148.4%	3.71%
Dallas	-19.4%	172%	4.08%
San Francisco	-35.9%	117.2%	3.15%
<b>Average</b>	<b>-24.8%</b>	<b>184.4%</b>	<b>4.27%</b>
<b>Board of Governors</b>	<b>57.5%</b>	<b>449%</b>	<b>7.05%</b>