

## **Congress and the Federal Reserve**

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## **Abstract**

We examine legislative activity to determine when Congress threatens the Fed and whether this pressure affects monetary policy. By the late-1980s Congress shifted from threatening when unemployment was high to threatening when inflation was high. We use the Romer and Romer monetary shocks to isolate changes in the federal funds rate that cannot be explained by economic conditions and ask whether these shocks respond to pressure. In the 1970s, the Fed responded to bills credibly threatening Fed powers by lowering the federal funds target below that prescribed by current and forecast economic conditions. However, this accommodation ceased in the mid-1980s.

*It is our understanding that the Board Members of the Federal Reserve will meet later this week to consider additional monetary stimulus proposals...[W]e submit that the board should resist further extraordinary intervention in the U.S. economy.*

-Sen. Mitch McConnell, Rep. John Boehner, Sen. John Kyl, Rep. Eric Cantor  
Excerpt from a letter to Federal Reserve Chairman Ben Bernanke  
Sent September 19<sup>th</sup>, 2011

## **1. INTRODUCTION**

To a generation of economists steeped in the desirability of an independent central bank and comforted by the institutional features that deliver a measure of autonomy to the Federal Reserve (budgetary independence, governors with long and overlapping terms who are not easily dismissed), this public letter from Congressional leaders to the Federal Reserve serves as an important reminder that there are limits to that self-determination. Not only does the executive branch appoint the Federal Reserve Governors subject to Senatorial confirmation, but perhaps more importantly, Congress has charge of the mandate of the Federal Reserve and can, with new legislation, grant or rescind powers.<sup>1</sup>

We study when Congressional pressure arises and how the Federal Reserve responds to it. Rather than review explicit public letters, we focus on Congressional bill proposals that seek to alter the powers of the Federal Reserve. We analyze when such bills are proposed, when they garner support in the form of cosponsors and votes, and whether the Federal Reserve changes monetary policy in response to legislative threats.

We find strong evidence that, during the 1970s, the Federal Reserve responded to threatening legislation by accelerating base money growth and lowering the target federal funds rate in excess of what was called for by anticipated economic conditions. To control for standard responses to economic forecasts, and therefore enable us to estimate a causal relationship, we use

the Romer and Romer (2004) monetary policy shocks as our measure of discretionary monetary policy. We then relate these discretionary shocks to legislative pressure.

The Fed's response to Congressional threats is rapid, coming within the first month after the proposal of a threatening bill. The response is confined to those bills which have cosponsors and are thus more likely to pass, representing more credible threats. The response is confined to bills which threaten existing prerogatives and does not extend to bills proposing to expand Fed powers or simply referencing the Fed as an expert. The response is also of modest but non-trivial size: a month at the 95<sup>th</sup> percentile in number of threatening bills (which by definition occurs slightly more often than once per Congressional term) increases the chance of an additional quarter-point rate cut—beyond what is called for by current and forecasted economic conditions—by 56 percentage points. However, based on our period of January 1973 – December 2005, we also find that this accommodation of Congressional pressure ceased in the mid-1980s after which time there is no systematic response of monetary policy to our measures of legislative pressure.<sup>2</sup> Splitting the bills into those proposed by Democrats and those proposed by Republicans, we find that the Fed responds only to the former. As a result, the change in the Fed's response during the 1980s is entirely accounted for by the change in the Fed's response to threats sponsored by Democrats.

Congress generally pressures the Fed when members believe it is failing to do its job. We look at the determinants of Congressional bills mentioning the Fed. In the sample as a whole, we find that high unemployment and high inflation both lead to an increase in bills threatening Fed powers. But we find that there has been a shift over time in the economic indicators that trigger Congressional interest. During the Burns and Volcker eras, bills threatening the Fed were generated most frequently by high unemployment. The response to high inflation was tepid by

comparison. During the Greenspan era, bills threatening the Fed were triggered more reliably by high inflation while the effects of high unemployment were muted. Further splitting by party, we find that this is true for both Republican-sponsored bills and Democrat-sponsored bills, but the shift is much stronger in the Democratic party. It would seem that between the Volcker and Greenspan eras Congressmen switched from holding the Fed responsible for unemployment to holding the Fed responsible for inflation.<sup>3</sup> Our finding fits well with Meltzer's (2010, 2011) view that the Fed has historically acted lexicographically, with exclusive focus on either inflation or unemployment at the expense of the other. It also fits with Burns' (1979) retrospective *crie de coeur* that the Keynesian belief in the power and duty of government to ensure full employment was paramount in Congressional policymaking during his tenure.

Together, our results suggest an important shift in the interaction between Congress and the Federal Reserve during the 1980s. Between Volcker and Greenspan's tenures, the Democratic party shifted away from pressuring for easing. This may have occurred as the Democratic Party, in the aftermath of the Great Inflation and Volcker Disinflation, learned of the dangers of inflation and the theory of the natural rate of unemployment.<sup>4</sup>

But it is important to note that the Fed's response to Democratic pressure ends before the nature of Democratic pressure adjusts. Thus it seems that change originated within the Fed and among those interested in monetary policy as the lessons of the Great Inflation were absorbed and applied to the conduct of central banking forming a new monetary policy consensus (see Romer 2005 for a nice summary of the evolution of the Fed's thinking about inflation).

Our paper is organized as follows. Section 2 reviews some of the prior literature on the relationship between Congress and the Federal Reserve. Section 3 presents our data on the sponsorship and cosponsorship of bills pertaining to the Fed and our methods of classification.

Section 4 analyzes the sources of legislative pressure on the Fed by analyzing the determinants of sponsorship, cosponsorship, and voting behavior. We then turn in section 5 to the effects of Congressional pressure on monetary policy: first money growth and then the federal funds rate. Section 6 discusses and concludes.

## **2. PRIOR LITERATURE**

A small prior body of literature addressed these questions during the height of interest in central bank independence, the 1980s and early 1990s. The literature seems to agree (and we concur) that when inflation, unemployment, or borrowing costs are high, Congress takes a greater interest in monetary policy. This is confirmed by multiple measures of Congressional interest in the Fed including legislation (Havrilesky 1993, 1994, Hess 2011), statements in the financial press (Havrilesky 1988a), and activity in Congressional hearings (Morris 1995).

However, there is considerably less agreement on whether the Fed actually responds to Congressional pressure. Several authors suggest that Congressional oversight is generally lax (Kettl 1986), that the Fed successfully obfuscates (Pierce 1978), and that the Fed has an implicit bargain with Congress whereby the Fed takes the blame for poor economic performance in exchange for autonomy (Kane 1980). But others argue that when the electoral cost of a bad economy is particularly high, the Fed must accommodate Congressional pressure to preserve its prerogatives (Willet 1990, Lohman 1992, Alesina and Stella 2011).

Grier (1991, 1996) is one of the few quantitative studies of this era finding strong effects of Congressional preferences on monetary policy. He finds that the ADA score of the chairmen of the Senate Banking and Finance committee and the two subcommittees charged with Fed

oversight are highly significant predictors of the growth rate of base-money but that the full committee and the rest of the Senate have no effect. However, Beck (1988, 1990) and Chopin, Cole, and Ellis (1996) each question the robustness of Grier's results to longer time periods. We too find that money growth becomes less responsive to political pressure after the mid-1980s. We find the same changing pattern of influence in the federal funds rate, suggesting that what took place was a change in the political equilibrium rather than a switch in intermediate targets.

Recent work by Weise (2012) reads the minutes of FOMC meetings between 1969 and 1979 for mention of political pressures. His measures distinguish whether the pressure is to accommodate or tighten. He then displays evidence that this measure of pressure mounts before a change in policy stance and is related to a measure of monetary policy shocks. His explicit measure of the direction of the pressure—tight or loose—is a significant improvement on prior literature which simply assumes all pressure is for looser policy. However, there are a few key areas where our paper provides additional insight into the relationship between political pressure and the Fed. First, Weise's study is confined to the 1970s and thus does not speak to the transition we document. Second, neither the sources of the pressure—congressional, executive, Democrats, Republicans— nor the conditions that generate pressure are identified. Third, it is possible that political pressures are mentioned selectively in FOMC documents to avoid seeming to be influenced by politics (see our appendix). Finally and most most importantly, Weise's measure of monetary policy shocks is somewhat sparse on economic controls, admitting concern that his correlation between political pressure and monetary policy may be driven by omitted changes in economic conditions. By using the Romer and Romer shocks as our measure of discretionary monetary policy, we avoid omitted variables bias, enabling a causal interpretation of the results.

### 3. DATA

Our data on Congressional bills come from the Library of Congress website, THOMAS. THOMAS has a searchable catalogue of the summary and status of all bills introduced in both chambers since the beginning of the 93<sup>rd</sup> Congress (January 1973). We search both chambers for the 93<sup>rd</sup> – 111<sup>th</sup> Congresses (Jan 1973-Dec 2010). Our set of bills consists of those in which the phrase “Federal Reserve”, “Board of Governors”, or “Federal Open Market Committee” appears in the bill summary or status. These search parameters deliver 1092 bills in the House and 404 bills in the Senate.<sup>5</sup>

For each bill, we recorded the sponsors and cosponsors, the committee to which the bill was referred, the furthest stage the bill achieved (e.g. introduction, referred out of committee, voted on the floor, passed into law), and the dates it achieved each legislative stage. We then classified each bill according to its intended effect on the Federal Reserve System. The classification system of 1 to 7, displayed in Table 1, was devised after looking at a random sample of bills and is intended to capture broad themes. Actual classification of bills was accomplished by RAs who read the bill summary (and if necessary, the full text). Difficult cases were brought to the authors for discussion. A single bill is often a collection of several clauses so, not surprisingly, many bills were classified under multiple categories. For example, a bill that sought to establish annual audits of the Federal Reserve System and place a ceiling on the Federal Funds rate would be classified as both type 6 and type 5.

For the subset of bills that made it to the floor, we have downloaded data on how each congressman voted from Keith Poole’s *Voteview*. To this we have added data on several economic and political variables. Our sources are documented in Table 2.



Table 3 shows the number of bills of each type that were proposed as well as the number that came to a vote on the chamber floor (Table 4 repeats for bills with at least one cosponsor). There are two things to point out. First, notice that most bills die in committee: roughly four-fifths of bills proposed that mention the Federal Reserve die in committee. That being said, this is actually a relatively high rate for bills to be reported out of committee. Data from the Congressional Bills Project (Adler and Wilkerson) shows that the annual reporting rate on Congressional bill proposals since WWII has varied between 3.5% and 12%. Second, the reporting rate varies somewhat by type. Bills of type 1 and type 2—those that seek to abolish the Fed or change its mandate—are rare and have almost never made it to a floor vote, the two exceptions being the Humphrey-Hawkins (HH) Act of 1976 and the Federal Reserve Reform Act of 1977. This does not necessarily mean such bills have no influence on the Federal Reserve, but it does mean we have too little data for a meaningful statistical analysis. As a result, we restrict our focus to the other categories.<sup>6</sup> Bills of type 5—those that usurp the powers of the Fed to set a specific policy—seem to be much less likely to be reported out of committee suggesting the policy specialists that comprise the committee may be relatively reluctant to dictate to the Fed. The only important variation across chambers is that the Senate is significantly more likely than the House to report bills pertaining to transparency (type 6).

Table 5 gives summary statistics on who proposes bills addressing the Federal Reserve. While certain congressmen are more involved in the oversight of the financial system, the top 11 legislators propose only one quarter of the bills. A further one quarter of the bills are proposed by legislators who propose only one or two bills addressing the Fed. Thus, while legislative specialization is apparent, it does not seem the proposal process is monopolized by a relatively few legislators. We have experimented with including legislator fixed effects in our

specifications but they have little explanatory power and little effect on the coefficients of interest.

Figure 1 shows the annual time series of the number of bills proposed. The clearest pattern is that bills are more frequently introduced in the first year of a Congress than in the second. This is likely because the legislative process takes time and bills that are not brought to a vote by the end of a Congress are removed from the agenda. Thus early introduction improves a bill's chance of passage. Another pattern is that spikes seem to coincide with periods of economic distress: 1981, 1979, 2009, and 1975 are the four highest peaks. These are periods of high inflation, high unemployment, or both. Finally, while there were more threats in the late 1970s and early 80s, even during the Great Moderation, there were routinely a dozen threats a year. Figure 2 breaks out legislative threats by chamber and party, showing that House Democrats dominate the legislative activity in the early period.

Not surprisingly, the great majority of the bills receiving classifications 1-6 are directed to either the House Committee on Financial Services or Senate Committee on Banking, Housing, and Urban Affairs.<sup>7</sup> Of the bill proposals classified as types 1-6 in the House, 78% are directed to the House Committee on Financial Services. No other committee receives more than 2.5%. In the Senate, 75% are directed to the Senate Committee on Banking. No other committee receives more than 4%. Thus when we look into the role of committee chairs, we restrict ourselves to these two committees only.

#### **4. SPONSORSHIP, COSPONSORSHIP, AND VOTING**

Our first question is: when do congressmen take an interest in the Federal Reserve? Congressional interest can and does take many forms: press releases, private communications, comments during regularly scheduled testimony by the Fed chairman, extra hearings on special topics, and actual legislation. Each of these can signal approval of or displeasure with the conduct of monetary policy. Of course, Congress does not speak with one voice so the Fed, as any legislative analyst, must gauge the likely actions of the body as a whole from the cacophony of individual communiqués. Many of the above measures carry the disadvantage of being difficult to measure exhaustively and difficult to quantify in retrospect. Moreover, several of these represent an intermediate step which does not, in itself, constitute a threat to Fed jobs or prerogatives. If Congress wishes to actually punish or reward Fed officials, it must do so by either refusing to confirm (re)appointments or by passing legislation changing the mandate or oversight of the Federal Reserve. It is certainly possible that the Federal Reserve responds to intermediate steps. However, given the many voices and the length and uncertainty of the legislative process, we believe such threats become compelling only when ensconced in the legislative pipeline. Thus in our study, we focus on legislation affecting the mandate of the Federal Reserve. For there to be legislative pressure on the Federal Reserve requires that a legislator choose to introduce a bill with provisions to change the powers of the Federal Reserve.

We proceed from the notion that FOMC members care both about (i) correctly applying monetary policy to steer the economy toward that outcome they believe to be optimal and (ii) protecting the powers, prestige, and independence of the Fed. Thus, Congressmen who disagree with monetary policy can sponsor and promote legislation that would threaten Fed power and

independence in order to persuade FOMC members to shade policy in the desired direction. Bill categories 4, 5, and 6 which include revoking Fed powers, Congress dictating monetary policy, and increased oversight, each fit the purpose.<sup>8</sup> Our reading of the FOMC minutes shows that the Fed is a sophisticated political analyst, that the Fed chair in particular pays attention to Congressmen and legislative proposals at a high frequency, and that bills of types 4, 5, and 6 are discussed at FOMC meetings (see appendix) while bills of types 3 and 7 are not. As it is not clear, *a priori*, why the Fed would behave differently in response to these various types of unwanted legislation, we lump together types 4, 5, and 6 into a single category we designate “threats”.

Congressmen sponsor bills as a form of voluntary public position-taking signaling to colleagues, interest groups, and voters the issues and positions with which a legislator most wishes to be associated (Schiller 1995). Bills sponsored are often discussed during re-election campaigns and sponsorship has been shown to affect campaign contributions (Rocca and Gordon 2010). As a result, legislators pay careful attention to an array of potential costs and benefits when choosing which bills to sponsor.

Cosponsoring a bill is a public commitment of support for a bill. Tanger, Seals, and Laband (2011) argue that cosponsorship is a “commitment mechanism that permits members of congress to engage in implicit contracting” thereby mitigating the time-inconsistency issues related to log-rolling. In other words, “bill cosponsorship is the legislative analog to trade credit.” Wilson and Young (1997) find that having at least one cosponsor improves the chances of a bill progressing out of committee and thus improves rates of final passage. Koger (2003) finds that legislative entrepreneurs and their interest group allies seek cosponsors to make their

bills more appealing to agenda setters. And Bernard and Sulkin (2013) find that congressmen rarely cosponsor and then fail to support final passage. Cosponsors are an indicator of greater support and greater likelihood of final passage.

Our approach is to estimate a logistic regression to explain the decision to sponsor or cosponsor legislation. We estimate regressions separately for each chamber and type of bill. Our dataset is a monthly panel of all congressmen from January 1973 to December 2010. The dependent variable,  $SP(T)_{cm}$  is whether congressman  $c$  has sponsored a bill of type  $T$  in month  $m$ . Because types 1 and 2 are so rare (see Table 3) and have only once made it to a vote, we do not analyze these bills.<sup>9</sup> As explained above, types 4, 5, and 6 are combined into a single category: threats. Thus we have three separate dependent categories: bills that extend Fed powers (type 3), bills that threaten Fed powers (types 4, 5, and 6), and bills that mention the Federal Reserve but do not materially affect its role (type 7). This last category serves as a control for how our explanatory variables affect bills concerning the economy but not directly affecting the prerogatives of the Federal Reserve.<sup>10</sup>

As potential explanatory variables, we begin with the three dimensions of the Fed's mandate: inflation, unemployment, and long-term interest rates.<sup>11</sup> Congressmen are likely to take an interest in the Fed when the economy is not performing well along these dimensions. Because financial stability and effective banking supervision have been a *raison d'être* of the Fed since its inception, we also include losses due to bank failures<sup>12</sup>. We include local deviations from national averages (state-level for unemployment and losses from bank failures and regional for inflation) to allow congressmen to respond to local conditions. We also include political variables such as whether the congressman's party has a majority in the chamber, which affects the ability to pass a bill and thus the incentives to introduce it; whether the congressman's party

controls the white house, which may affect a congressman's incentive to criticize the Fed; the ideology of the congressman as measured by McCarty, Poole, and Rosenthal's (1997) DW-Nominate first dimension, which they interpret as the classic liberal-conservative axis; and whether the congressman's upcoming reelection turned out to be close, in which case electoral pressure might change incentives for legislative entrepreneurship.<sup>13</sup> In light of the pattern displayed in Figure 1, we include a dummy variable for whether it is the first year of the Congress.<sup>14,15</sup>

These specifications are estimated using logistic regressions with two-dimensional clustering.<sup>16</sup> Clustering by month allows for contemporaneous shocks from omitted variables such as other events on the electoral and legislative calendars that might heighten or depress the time devoted to legislation, national events with significance for inter- or intra-party cooperation, changes in the national mood, and changes in the degree of cooperation among legislators. Clustering by congressman allows for auto-correlation in the error term given that economic conditions are persistent and the likelihood of omitted legislator-specific proclivities not captured by the DW\_Nominate score. We report odds ratios throughout and levels of significance are based on whether an odds ratio is statistically distinct from 1.<sup>17</sup> We calculate a panel Durbin-Watson statistic following Bhargava, Franzini, and Narendranathan (1982).

$$\begin{aligned}
SP(T)_c = & \alpha + \beta_1 u\_nat_m + \beta_2 (u\_state_{cm} - u\_nat_m) \\
& + \beta_3 \pi_m + \beta_4 (\pi\_regional_{cm} - \pi\_nat_m) + \beta_5 r_m \\
& + \beta_6 \ln(1 + ValueFailed\_nat_m) \\
& + \beta_7 [\ln(1 + ValueFailed\_state_{cm}) - \ln(1 + ValueFailed\_nat_m)] \\
& + \beta_8 WhiteHouse_c + \beta_9 ChamberMajority_c + \beta_{10} LR\_Score_c \\
& + \beta_{11} Re\_election\_close_c + \beta_{12} FirstYear + \varepsilon_{cm}
\end{aligned} \tag{1}$$

#### *4.1 Sponsorship*

Looking at Table 6, we can see that congressmen in both chambers respond strongly to economic conditions. A higher national unemployment rate, a higher national inflation rate, and a higher real interest rate all prompt sponsorship of bills affecting the prerogatives of the Federal Reserve. An additional percentage point of inflation increases the likelihood of a threatening bill by 14.6% in the House and 13.2% in the Senate. An additional percentage point of unemployment increases the chance of a threatening bill by 15% in the House and 22.6% in the Senate. Importantly, difficult economic conditions increase the incidence of bills that threaten the Fed's prerogatives without significantly affecting the frequency of other bill types.<sup>18</sup> Finally, both chambers seem to pay attention mainly to national economic conditions. State-level variation in unemployment rates and bank failures and regional variation in inflation do not consistently predict bill sponsorship by local representatives.<sup>19</sup>

Elected representatives also respond to political considerations and do so similarly in both chambers. Congressmen from the majority party are more likely to sponsor legislation of any sort, perhaps because the chances of referral and passage are greater and it is thus a better investment of time and effort. However, the effect of being in the majority stimulates fewer additional threats to Fed powers (types 4,5,6) than it does extensions of Fed powers (type 3) or bills referencing the Fed (type 7). This is one of several indications in the data that the majority party is relatively reluctant to remove or usurp Fed powers, possibly because the majority party will be held responsible for economic outcomes and prefers the Fed to have all tools at its disposal.

However, having a fellow party member in the White House does not seem to affect sponsorship behavior. Moreover, electoral pressure seems to have little consistent effect on sponsorship activity. Perhaps electoral pressure increases the payoff to legislative activity but increases the benefits to other uses of a congressman’s time as well, leaving the congressman’s allocation of time unchanged. Or perhaps electoral pressure increases the potential benefits of sponsoring legislation but likewise increases the potential costs.

#### 4.2 Voting

For each of the bills from our sample that made it to a vote—219 in the House and 283 in the Senate—we have records of how each member in the chamber voted.<sup>20</sup> Using the same set of political and economic explanatory variables from our analysis of (co)sponsorship, we estimate a logistic regression to explain whether a particular congressman voted in favor of or against a bill of a particular type,  $T$ . We cluster the standard errors two ways, by bill and congressman, report odds ratios and test for differences from 1.<sup>21</sup>

$$\begin{aligned}
VoteAye(T)_c = & \alpha + \beta_1 u\_nat_m + \beta_2 (u\_state_{cm} - u\_nat_m) \\
& + \beta_3 \pi_m + \beta_4 (\pi\_regional_{cm} - \pi\_nat_m) + \beta_5 r_m \\
& + \beta_6 \ln(1 + ValueFailed\_nat_m) \\
& + \beta_7 [\ln(1 + ValueFailed\_state_{cm}) - \ln(1 + ValueFailed\_nat_m)] \\
& + \beta_8 WhiteHouse_c + \beta_9 ChamberMajority_c + \beta_{10} LR\_Score_c \\
& + \beta_{11} Re election\_close_c + \varepsilon_{cm}
\end{aligned} \tag{2}$$

While national economic conditions have a strong effect on the frequency with which bills are generated, they have much less effect on whether a bill receives votes on the floor.



While there is some scattered evidence of voting-behavior responding to economic conditions, the overall picture is mixed (see Table 7). Inflation leads to greater support for bills of all types while unemployment leads to less support for bills of all types. This suggests that a bad economy leads to more bills passed affecting the Fed because it leads to more bills generated, not because such bills pass at a higher rate. In the Senate, conservatives are much less likely to support bills extending Fed powers and much more likely to support bills threatening Fed powers. The party that controls the White House is less likely to support bills that remove Fed powers.

It should be noted that the bills that actually arrive at a floor vote are not a random sample. Presumably these bills have substantial backing to move out of committee and be brought to a vote. This backing may have been the result of unobserved economic or political conditions, the strength and design of the bill, or even Fed actions taken since the bill was introduced. We do not attempt to tackle these selection issues, hence the results should be taken as indicative of historic determinants of support for a bill conditional on its reaching a vote.

#### *4.3 Differences by Party and Over Time*

As we noted in the introduction, there is reason to believe that the legitimacy of the Fed and the consensus view of the proper role of political oversight of the Fed have both changed during our sample period. A large literature on partisan political business cycles also postulates that Democrats and Republicans generally have different views of the relative weights the Fed ought to place on unemployment and inflation (Kramer 1973, Hibbs 1977, Alesina 1988). Thus we ask two questions. Do the two parties respond differently to economic conditions? Moreover, has this response changed over time? To test how sponsorship activity has varied over time, we

estimate a variation of equation (1). First we limit to the nationwide dual mandate variables: unemployment and consumer price inflation. We then add interactions of each of these economic variables with the Burns and Volcker eras. Thus we allow sponsorship behavior to vary between the tenures of Burns, Volcker, and Greenspan.<sup>22</sup> Finding that Congress behaves similarly in the Burns and Volcker eras (see columns 1 and 5 of Table 8), we then lump Burns, Miller, and Volcker together to increase power.<sup>23</sup> As before, we estimate a pooled logistic regression with two-way clustering by month and congressman. We estimate separate regressions for each chamber and party. We report odds ratios and statistical significance relative to 1 in Table 8.

Looking at Table 8, we can see a clear difference between the Greenspan era and the Volcker and Burns eras. Relative to the Greenspan era, the Burns and Volcker eras are characterized by larger coefficients on unemployment and lower coefficients on inflation. This pattern is evident in both House and Senate. In other words, under Burns and Volcker, Congressional pressure was generated mainly when unemployment was high; under Greenspan, Congressional pressure was generated mainly when inflation was high. This suggests a significant shift in the conditions under which Congress perceived the Federal Reserve to be performing poorly, support for the idea that the lessons of the Great Inflation and the Volcker disinflation changed not only how economists viewed the role of the Fed, but also how Congress viewed and judged the Fed.

This effect is visible in both parties but is much stronger among the Democrats. Table 8 (columns 3 and 4 vs. 7 and 8) shows that in both chambers, Democrats started off caring more about unemployment and less about inflation. In both chambers, especially the House, the shift in emphasis from unemployment to inflation is visible in both parties but is more pronounced among Democrats. During the Burns and Volcker eras, Democrats cared much more about high

unemployment and less about inflation than their Republican counterparts. By the Greenspan era, Congressional Democrats had evolved to close the gap.

## **5. POLICY**

### *5.1 Base money growth*

Ultimately, we care not only about when Congress chooses to pressure the Federal Reserve, but also about what the Federal Reserve does in response to that pressure. While most bills do not become law, the Fed may respond to diffuse the support for a bill that threatens its prerogatives. We begin by re-estimating Grier's (1991) specification for a longer sample, regressing the growth rate of base money on the lag of the GNP growth rate, the lag of central government deficit as a fraction of GDP, the lag change in the 3-month t-bill rate, and a measure of the ideological position of the Senate banking committee members. Grier chooses the first three variables because they foster a desire for faster growth in the money supply among members of Congress (see Laney and Willett 1983 for evidence on political monetization of the deficit.) Grier uses the ADA score of the committee chairman to measure the ideological stance of the committee. We prefer Poole and Rosenthal's DW-Nominate score (not available at the time of Grier's study) because it is based on voting record for all bills rather than those selected by a particular interest group and because it is comparable across Congresses. We prefer the median rather than the chair because reporting a bill to the floor requires a majority vote by the full committee (see Figure 3 for the time series of this median).

$$g_{M,t} = L \cdot g_{GNP,t} + L \cdot \left( \frac{G}{Y} \right)_t + L \cdot D \cdot i_{3,t} + DWNOMINATE_{committee\ median,t} + \varepsilon_t \quad (3)$$

Grier's sample was 1958q1 – 1984q4. We have data from 1948q1 to 2010q4 which we estimate as a whole and in sub-samples to show the change in the relationship over time. However, because the dependent variable is base money growth, we have halted our sample at the end of 2007 to avoid the extraordinary events of 2008. Durbin-Watson statistics cannot reject the null of no autocorrelation in the residuals.

As Grier notes in later work (Grier 1996), as the relationship between money growth and economic outcomes broke down in the mid-80s, changing the base money growth rate would do less to accommodate Congressional preferences. Hence we might expect that Fed accommodation of political pressures would no longer be directed at faster money growth. Indeed, as the R-squared and F-statistics show, base money growth is much better explained by these variables in the early period. Future money growth more closely reflects the federal government deficit during the first period (Table 9, columns 2 and 3). It is also much more closely tied to the ideology of the median member of the Senate banking committee in the early period. Base money growth averaged 4.6% with a standard deviation of 5.2 percentage points in the early period and 6.5% with a standard deviation of 4.2 percentage points in the later period. The average difference between the median Republican and the median Democrat over the entire sample is roughly two-thirds of a point on the DW-Nominate scale. Thus in the earlier period, a switch from a Democrat to a Republican would reduce base money growth by more than a full standard deviation. In the later period, the figure is less than half a standard deviation. In sum, base money growth has gone from being strongly related to GDP growth, government surplus, and political ideology to being mostly independent of these factors.<sup>24</sup>

## *5.2 Interest Rates*

While base money may have been a relevant policy target in the past, it has become much less important as the Fed has shifted to targeting the Federal Funds rate. In a review of the verbatim transcripts of FOMC meetings, Thornton (2005) dates the change to October 1982. Thus, perhaps accommodation of Congressional pressure hasn't vanished, but has simply shifted to a different intermediate target. In particular, does Congressional pressure affect the federal funds rate target chosen by the Fed?

Current and expected future economic conditions both affect Congressional pressure and determine the federal funds rate target. Our definition of monetary policy responding to political pressure is that the Fed would, for equivalent economic conditions and forecasts, vary the interest rate target according to Congressional pressure. To ensure that we adequately control for real-time economic conditions and forecasts, we use the measure of monetary policy shocks developed by Romer and Romer (2004). They construct their measure by using Greenbook forecasts to “purge the intended funds rate of monetary policy activity taken in response to information about future economic developments.” Their measure is thus constructed to be free of endogenous and anticipatory movements and thus to represent that part of policy which represents discretionary changes separate from typical responses to the economic conditions. If the Fed responds to Congressional pressure, it should show up in this series of monetary policy shocks.<sup>25</sup>

Romer and Romer's monthly series runs from January 1969 through December 1996. We have extended this dataset through December 2005.<sup>26</sup> Our dataset of Congressional bills begins

in January 1973. Using the dates given by Thornton, we compare the post-Volcker period of federal funds rate targeting, October 1982 – December 2005, which we have split into the Volcker and Greenspan eras, to the pre-Volcker period of federal funds targeting, January 1973 – September 1979.<sup>27,28</sup> For each period, we regress the Romer and Romer monetary shock against a lagged measure of Congressional pressure. Our measure is the total number of bills threatening the Fed (types 4, 5 and 6) that were introduced in the previous month. Durbin-Watson statistics cannot reject the null of no auto-correlation in the residuals.

Focusing for the moment on the Burns/Miller era, this raw measure of bills introduced has only a weakly statistically significant effect on monetary policy (Table 10, column 2). However, many bills will never emerge from committee and thus pose no threat. As we have noted, one of the most important indicators of a bill's likelihood of emerging from committee is the existence of even a single cosponsor (Wilson and Young 1997). If we adjust our measure to count only bills that have at least one cosponsor, there is a strong and significant relationship between Congressional pressure and the federal funds target (column 3). Including more lags of the measure of Congressional pressure (column 4) shows that monetary policy responds swiftly to even minimally credible Congressional pressure, the full response coming within the first month.<sup>29</sup> Finally, we can regress the Romer and Romer monetary shock on the lagged total number of bills proposing to extend Fed powers (type 3) as a falsification test. The point estimate is indistinguishable from zero (column 1). Columns 5-8 and 9-12 repeat these regressions for the Volcker and Greenspan eras.

Three things stand out in these results. First, Congressional pressure, in the form of legislation threatening the prerogatives of the Fed, has a significant effect on monetary policy only during the Burns/Miller era. During this period, the Fed accommodated Congressional

pressure by lowering rates. During the Volcker (1982m10 – 1987m7) and Greenspan (1987m8 – 2005m12) eras, interest rate policy was indifferent to Congressional attention. Figure 4 provides an illustration of this point to demonstrate that it is not driven by outliers. We return to this result momentarily.

Second, during the Burns/Miller era, the effect seems to be modest but non-trivial. The Romer and Romer shocks are measured in percentage points, so each additional cosponsored bill threatening the Fed changed the intended federal funds target rate by four and a half basis points during the earlier period. For our entire sample (1973 – 2010), the median month had 0 such bills, the mean was 0.75 bills, the standard deviation was 1.3 bills, and the maximum was 8 bills. A month with 3 bills (95th percentile) occurs slightly more frequently than once per Congress and would change the federal funds target rate by as much as 14 basis points on average. As the federal funds rate is generally targeted in intervals of 25 basis points, one could think of this as increasing the chance of an additional quarter point drop—beyond whatever adjustment would be standard given the economic fundamentals and forecasts—by 56 percentage points.

Third, we are surprised at how swiftly the Fed responds to proposed legislation. Lagged proposals have no statistically significant additional effect on interest rates (see Table 10). This suggests that the Fed is (or was) engaged in a high frequency political battle and occasionally resorts to adjusting monetary policy in order to reduce support for a bill under consideration. This is consistent both with our reading of the FOMC transcripts (see appendix) and with the view of Lohman (1992) and Alesina and Stella (2011).

One potential problem with our empirical strategy is that we have implicitly assumed all threats are aimed at loosening monetary policy. However, both our motivating quote and Weise (2012) clearly demonstrate that Congress does, at times, pressure the Fed to tighten (or refrain

from loosening) monetary policy. In this light, we must allow that derailing threats requires easing at some times and tightening at others. The estimates in Table 10 are the net response to pressure and thus may be an underestimate of the Fed's response to pressure from a given direction. The change in the sign of the coefficient between the early (1973:1 – 1979:9) and the later (1982:10 – 2005:12) periods may be due to a change in the direction of the prevailing Congressional winds.

While the Fed likely knows of the monetary policy preferences of a bill's framers and promoters, there is unfortunately no consistent trace of these desires left in the text of a bill that would enable useful classification *ex-post*. However, as the long literature on partisan political business cycles has noted, Republicans and Democrats likely have systematically different preferences over the relative importance of unemployment and inflation given their differing constituencies (Kramer 1973, Hibbs 1977, Alesina 1988). Indeed, we saw in Table 6 that Democrats are more likely than Republicans to threaten when unemployment is high and less likely to threaten when inflation is high. Thus, we expect that threatening bills proposed by Republicans might engender different responses from the Fed than threats proposed by Democrats, on average. Table 11 shows the effects of allowing threats to have different effects by party of origin.

We would expect a negative sign on Democratic pressure and a positive sign on Republican pressure. The results are more complex. In the early period, both Democratic and Republican threats resulted in monetary easing, though bills sponsored by Democrats had a larger and statistically significant effect. In the later period, the point estimates for both parties have become more positive and are essentially indistinguishable from zero. These results fit well with the rest of our analysis which suggests that both parties (though especially Democrats)



moved from a focus on unemployment—and thus further easing—to a focus on inflation which would likely align with the Fed’s internal preferences and thus produce no effect in the Romer-Romer residuals.<sup>30</sup> Repeating the analysis using bills extending Fed powers (columns 1, 3, and 5) confirms this response is limited to bills threatening Fed prerogatives.

## **6. SUMMARY AND DISCUSSION**

We have examined the determinants of Congressional pressure. In general, poor national economic conditions—high unemployment, high inflation, and high borrowing costs—lead to bills threatening Fed powers and independence. We interpret this as evidence that in tough times, Congressmen blame the Fed. Interestingly, legislators in the majority, who have a greater electoral stake in finding solutions to poor economic times, are more likely to sponsor bills that extend Fed powers than they are bills that revoke or usurp Fed powers.

We have shown that during the Burns/Miller era the Fed responded to Congressional pressure—in the form of legislation threatening Fed prerogatives—by targeting a federal funds rate lower than economic conditions would otherwise have engendered. We estimated that this response reached economically significant magnitude when the threat was sufficiently great. By contrast, there was no significant Fed response to Congressional pressure during the Volcker and Greenspan eras. Splitting by party, we find that the threats to which the Fed responded during the Burns/Miller era were initiated by Democrats.

The generation of Congressional pressure also changed character during our period. Between the Volcker and Greenspan eras, Congress moved from threatening when unemployment was high (and ignoring inflation) to threatening when inflation was high (and

refraining from threatening when unemployment was high). This movement was mostly concentrated among Democrats. We speculate that there was a shift in Congressional Democrats' view of the capabilities and responsibilities of the Fed and thus the conditions under which the Fed was failing to perform its duties. As a result, Democratic Congressmen ceased to pressure for more stimulus to reduce unemployment.<sup>31</sup> Having aligned Congress' views with the Fed's preferred response to economic conditions, Congressional pressure had no additional effect on policy.

It is important to notice that the shift in Fed behavior predates the shift in Congressional behavior. The Fed ceased to respond to pressure from the start of Volcker's tenure, even as Congress remained focused on high unemployment. It was not until Greenspan's tenure that Congressional Democrats shifted their focus to inflation. Thus it would seem that the adjustment initiated within the Fed, subsequently spreading to Congress.

Taken together, the evidence suggests that shifts in the consensus view and practice of central banking both reduced political pressure and helped the Fed resist accommodation. Chief among these would be the understanding of the short run nature of the Phillips curve, leading to a widespread norm that central banks ought to focus primarily on price stability. Changes in conduct such as changing intermediate targets from monetary aggregates to interest rates, the gradually increasing volume of material published on FOMC deliberation, the development of a community of Fed watchers, and the development of rules of thumb such as Taylor rules and inflation targets may also have played a role in institutionalizing the gains made during Volcker's tenure as the increase in transparency and the development of monetary policy rules made it harder to hide and justify politically motivated policy actions and thereby improved the ability of the Fed to resist Congressional pressure. We would point out that none of this shift is

captured in the structural measures of central bank independence used in cross-country comparisons (e.g. Cukierman 1992).

Our results show that legislative threats have had no systematic effect on interest rate policy since the 1970s. Nonetheless, we cannot yet conclude that legislative pressure has had no effect on Federal Reserve policy. The modern era of Fed-watching, transparency, and Taylor-rules leaves little room for politically-pressured manipulation of highly visible interest rates in directions not supported by economic data. Despite this, however, the Federal Reserve is an important regulator of the financial system. Regulation and oversight are a less transparent purview, where judgment can more easily be influenced by political pressure and yet still be justified ex-post as pursuing legitimate goals. It remains possible that congressmen threaten legislative action against Fed powers as a means to secure favorable treatment of local financial firms. Investigation of this and related hypotheses remains for further research.

Moving forward, it seems clear that the Federal Reserve's legitimacy has been gravely weakened by the Great Recession. Nor, as our motivating quote suggests, is this challenge confined to the Fed's oversight of financial institutions; its competence to conduct open market operations and interest rate policy are also being publicly questioned. The staggering increase in public debt and the deep political divisions over the proper apportioning of repayment make continued pressure on the Federal Reserve quite likely even as the Great Recession has abated. Moreover, the consensus among macroeconomists as to proper monetary policy has frayed. Will modern transparency and a community of Fed watchers help sustain widespread acceptance of an apolitical Fed? Or will a vilified Fed, constantly questioned about its mandate and legitimacy and missing a unified academic, philosophic, and political consensus return to occasional accommodation of political pressure to safeguard its prerogatives? Our analysis, emphasizing the

role of a consensus on monetary policy in forestalling political cross-pressure, suggests that the latter is a distinct possibility.

## LITERATURE CITED

Adler, E. Scott, and John Wilkerson, *Congressional Bills Project: 1947-2008*, NSF 00880066 and 00880061.

Alesina, Alberto (1988) "Macroeconomics and Politics," In *NBER Macroeconomics Annual*, edited by Stanley Fisher, pp. 13-52, Cambridge: MIT Press.

Alesina, Alberto, and Andrea Stella (2011) "The Politics of Monetary Policy," in *Handbook of Monetary Economics*, ed. Benjamin Friedman and Michael Woodford, chapter 18, pp. 1001-1054.

Beck, Nathaniel (1988). "Politics and Monetary Policy," in *Political Business Cycles: the Political Economy of Money, Inflation, and Unemployment*, ed. Thomas D. Willett, pp. 366-395, Raleigh: Duke University Press.

Beck, Nathaniel (1990). "Congress and the Fed: why the dog does not bark in the night," in *The Political Economy of American Monetary Policy*, ed. Thomas Mayer, pp. 131-150, Cambridge: Cambridge University Press.

Bernanke, Ben S., Thomas Laubach, Frederic S. Mishkin, and Adam S. Posen (1999). *Inflation Targeting: Lessons from the International Experience*, Princeton: Princeton University Press.

Bernhard, William, and Tracy Sulkin (2013). "Commitment and Consequences: Reneging on Cosponsorship Pledges in the U.S. House," *Legislative Studies Quarterly*, 38(4), 461-89.

Bhargava, A., L. Franzini, and W. Narendranathan (1982). "Serial Correlation and the Fixed Effects Model," *Review of Economic Studies*, 49, 533-549.

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

Burns, Arthur (1979). "The Anguish of Central Banking," Per Jacobsson Lecture.

Chappell, Henry, Thomas Havrilesky, and Rob McGregor (1993). "Partisan Monetary Policies: Presidential Influence through the Power of Appointment," *Quarterly Journal of Economics*, 108, 185-218.

Chopin, Marc C., Steven Cole, and Michael A. Ellis (1996). "Congressional influence on U.S. monetary policy: A reconsideration of the evidence" *Journal of Monetary Economics*, 38, 561-570.

Cukierman, Alex (1992). *Central Bank Strategy, Credibility, and Independence*, Cambridge: MIT Press.

Grier, Kevin B. (1991). "Congressional influence on U.S. monetary policy," *Journal of Monetary Economics*, 28, 201-220.

Grier, Kevin B. (1996). "Congressional oversight committee influence on U.S. monetary policy revisited," *Journal of Monetary Economics*, 38, 571-579.

Havrilesky, Thomas (1988a). "Monetary Policy Signaling from Administration to the Federal Reserve," *Journal of Money, Credit, and Banking*, 20, 83-99.

Havrilesky, Thomas (1988b). "Two Monetary and Fiscal Policy Myths," in *Political Business Cycles: the Political Economy of Money, Inflation, and Unemployment*, ed. Thomas D. Willett, Raleigh: Duke University Press.

Havrilesky, Thomas (1993). *The Pressures on American Monetary Policy*, Boston: Kluwer.

Havrilesky, Thomas (1994). "Outside Influences on Monetary Policy: A Summary of Recent Findings," *Contemporary Economic Policy*, 12(1), 46-51.

Hess, Gregory D. (2011). "Comment on: "Politics and the Fed" by Allan H. Meltzer," *Journal of Monetary Economics*, 58, 49-53.

Hibbs, Douglas A. (1977). "Political Parties and Macroeconomic Policy," *American Political Science Review*, 71 (Dec), 1467-87.

Kettl, Donald (1986). *Leadership at the Fed*, New Haven: Yale University Press.

King, Gary, and Langche Zeng (2001). "Logistic Regression in Rare Events Data," *Political Analysis*, 9: 137-163.

Koger, Gregory (2003). "Position-Taking and Cosponsorship in the U.S. House," *Legislative Studies Quarterly*, 28: 225-246.

Laney, Leroy O., and Thomas D. Willett (1983). "Presidential Politics, Budget Deficits, and Monetary Policy in the United States; 1960-1976," *Public Choice* 40(1), 53-69.

Lohmann, Susanne, (1992). "Optimal Commitment in Monetary Policy: Credibility versus Flexibility," *American Economic Review*, 82, 273-286.

McCarty, Nolan, Keith Poole, and Howard Rosenthal (1997). *Income Redistribution and the Realignment of American Politics*. Washington DC: SEI Press.

Meltzer, Alan (2010). *A History of the Federal Reserve, volume 2: Book 2, 1970-1986*. Chicago: University of Chicago Press.

Meltzer, Alan (2011). "Politics and the Fed," *Journal of Monetary Economics*, 58, 39-48.

Morris, Irwin L. (1995). "Monetary Policy Signaling and the Senate Banking Committee," *Social Science Quarterly*, 76(4), 902-910.

Nelson, Garrison. *Committees in the U.S. Congress, 1947-1992*. Online resource downloaded February 2011: [http://web.mit.edu/17.251/www/data\\_page.html](http://web.mit.edu/17.251/www/data_page.html)

Pierce, James L. (1978). "The Myth of Congressional Supervision of Monetary Policy," *Journal of Monetary Economics* 4, 363-370.

Rocca, Michael S., and Stacy B. Gordon (2010). "The Position-taking Value of Bill Sponsorship in Congress," *Political Research Quarterly*, 63(2), 387-397.

Romer, Christina D. (2005). "Comments on 'Origins of the Great Inflation' by Allan H. Meltzer," *Federal Reserve Bank of St. Louis Review*, 87 (March/April): 177-186.

Romer, Christina D., and David H. Romer (2004). "A New Measure of Monetary Shocks: Derivation and Implications," *American Economic Review*, 94(4), 1055-1084.

Schiller, Wendy J. (1995). "Senators as Political Entrepreneurs: Using Bill Sponsorship to Shape Legislative Agendas," *American Journal of Political Science*, 39(1), 186-203.

Stewart, Charles, and Jonathan Woon. *Congressional Committee Assignments, 103rd to 112th Congresses, 1993-2011*. Online resource downloaded February 2011: [http://web.mit.edu/17.251/www/data\\_page.html](http://web.mit.edu/17.251/www/data_page.html)

Tanger, Shaun M., Richard A. Seals Jr., and David N. Laband (2011). "Does Bill Cosponsorship Affect Campaign Contributions?: Evidence from the U.S. House of Representatives, 2000-2008," *Auburn University Working Paper*.

Taylor, John B. (1993). "Discretion Versus Policy Rules in Practice," *Carnegie-Rochester Conference Series on Public Policy*, 39, 195-214.

Thornton, Daniel L. (2005). "When Did the FOMC Begin Targeting the Federal Funds Rate? What the Verbatim Transcripts Tell Us," *FRB St. Louis Working Paper 2004-015B*.

Tomz, Michael, Gary King, and Langche Zeng (1999). RELOGIT: Rare Events Logistic Regression Version 1.1, Cambridge, MA: Harvard University, October 1, <http://gking.harvard.edu/>

Weintraub, Robert E. (1978). "Congressional Supervision of Monetary Policy," *Journal of Monetary Economics*, 4, 341-362.

Weise, Charles L. (2012). "Political Pressures on Monetary Policy During the US Great Inflation," *American Economic Journal: Macroeconomics*, 4(2), 33-64.

Willett, Thomas D. (1990). "Studying the Fed: toward a broader public-choice perspective" in *The Political Economy of American Monetary Policy*, ed. Thomas Mayer, Cambridge: Cambridge University Press.

Wilson, Rick K., and Cheryl D. Young (1997). "Cosponsorship and the U.S. Congress," *Legislative Studies Quarterly*, 22(1), 25-43.

Woolley, John T. (1984). *The Federal Reserve and the Politics of Monetary Policy*, Cambridge: Cambridge University Press.



## ENDNOTES

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<sup>1</sup> Under article 1, section 8 of the U.S. Constitution.

<sup>2</sup> See the appendix for a summary of discussions of Congress in the FOMC minutes.

<sup>3</sup> Congressional Republicans did similarly move from inflation to unemployment but they started the sample period with greater focus on inflation and the consequent move was smaller and rarely statistically significant. We suspect that because central bankers during our sample period have tended to be concerned with inflation, that Republican pressure was never at odds with internal Fed policy, hence the lack of measurable effect on fed funds rate policy.

<sup>4</sup> FOMC meeting minutes from the mid 1980s contain many interesting discussions of how to educate Congress as to what monetary policy can and cannot do (see Mr. Balles' comments from August 23, 1983 for example).

<sup>5</sup> These numbers are after the removal of bills that were erroneously swept up by our keyword search (e.g. referring to the Federal Petroleum Reserve.)

<sup>6</sup> Both of these bills included other provisions that warrant their inclusion in category 6: transparency and accountability which leads to their inclusion in our analysis.

<sup>7</sup> The House Financial Services committee has also been known during our sample period as the House Committee on Banking and Financial Services and the House Committee on Banking, Financial, and Urban Affairs.

<sup>8</sup> It may be unclear why bills calling for increased accountability and oversight would threaten the Fed. In the words of Ben Bernanke during Congressional testimony in response to why the "Audit the Fed" bill would be damaging to the Fed: "*Because GAO reviews may be initiated at the request of members of Congress, reviews or the threat of reviews in these areas could be seen as efforts to try to influence monetary policy decisions.*"

<sup>9</sup> They can be lumped with threats (types 4,5,6) without changing the results (because they are so rare).

<sup>10</sup> One former member of the FOMC suggested that the Fed may not view proposed extensions of new powers as a boon, but rather as unwanted responsibility. Hence in our measurement of the Fed response to legislation, we focus on avoiding threats rather than seeking extensions.

<sup>11</sup> The Fed's mandate for much of our sample period was established by the Federal Reserve Reform Act of 1977, which called for it to "promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates."

<sup>12</sup> This variable takes the form  $\log(1+b)$  where  $b$  is the dollar value of losses from bank failures.

<sup>13</sup> We use the actual election results to determine whether the upcoming election was close or not. While this is clearly not information the congressmen would have had at the time, if we assume that congressmen are relatively unbiased predictors of whether they will face a tight reelection battle, this is the best widely available proxy. Our basic threshold is whether the final margin was within 10 percentage points. We have estimated alternate specifications for a final tally within 5 percentage points and found little change to the results.

<sup>14</sup> We have also included district fixed effects, using data from Carson, Crespin, Finnochiaro, and Rhode (2007) to track districts through decadal redistricting. Since districts tend to be relatively fixed in their ideology and thus continuously elect congressmen of similar ideology, district FE soak up much of the variation previously attributed to the congressman's ideology. The results are otherwise unchanged.

<sup>15</sup> We refrain from including Congress fixed effects because this would leave us to explain Congressional interest as a result of economic conditions relative to a two-year average. We do not believe a two-year average is the baseline by which economic performance is judged by either Congress or the public.

<sup>16</sup> The authors acknowledge and give thanks to Mitchell Petersen for sharing his Stata code.

<sup>17</sup> Bills pertaining to the Federal Reserve are sufficiently rare that our dependent variable takes the value zero much more often than one. (A given congressman will usually not be sponsoring or cosponsoring a bill in a given month). Thus we estimate the specifications from sections 4.1 and 4.2 using King and Zeng's (1999) correction for rare events. We also estimate a linear probability model which produces a pattern of signs and levels of significance that are virtually identical to the results we present in Tables 5, 6, 8, and 9.

<sup>18</sup> The results do suggest that bank failures lead to increased legislative activity referencing the Fed.

<sup>19</sup> The lone exception: Representatives from states with high unemployment rarely sponsor bills extending more powers to the Fed.

<sup>20</sup> Abstentions make up only a small fraction, 4.3%, of our sample. We have treated them as missing votes in the binary analysis presented. Because abstentions are so rare, estimating a ternary classification makes little difference to the results while complicating the interpretation and presentation.

<sup>21</sup> We have tried some variations on this specification. Dropping state-level unemployment, which is available only starting in 1976, allows us to include three more years of bills. This does not change the results. We have allowed nonlinearity in the response to unemployment and inflation. No systematic results. We have added interaction terms

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to see if Senators respond differently to economic conditions before elections. There is weak evidence that they become cautious, less likely to vote in favor of any bill.

<sup>22</sup> Because Miller's tenure is so short, we cannot usefully run his tenure separately in columns 1 and 5, but he is included in the rest of Table 8. Bernanke is also dropped so as to match the period for which we have policy outcomes: see section 5 below.

<sup>23</sup> The fact that the change in Congressional behavior does not arrive until after the Volcker era is also strong evidence that the regime shift we document in this paper is not simply a result of the Humphrey-Hawkins Act of 1978.

<sup>24</sup> Preparation for Y2K and the response to the attacks of September 11<sup>th</sup> resulted in unusually rapid growth in the monetary base in 1999q4 and 2001q3. Introducing dummy variables for these quarters does not significantly affect the results of Table 9.

<sup>25</sup> One might worry about reverse causality: that Congressional pressure responds to interest rate decisions by the Fed. Certainly our previous results show that threats from Congress are more likely when real borrowing costs are high (see Tables 5 and 6). But given our empirical design with a tight one-month window and lagged threats, we would be at risk econometrically only if Congress introduced threats *preemptively*. For instance, a Congressman hears that the Fed is considering raising the federal funds rate target at their next meeting and introduces a threatening bill in advance while conveying that the success of the bill will be conditional on the behavior of the Fed. Given the many demands on a Congressman's time and the need to rally support to make a legislative threat credible and effective, we deem this unlikely.

<sup>26</sup> Because Greenbook forecasts are available only with (at least) a five year lag, 2005 was the most recent available year at the time of analysis.

<sup>27</sup> We have also restricted to the period 1982m10 – 1996m12 to alleviate concerns that our extension of the Romer and Romer dataset, which involves some small subjectivity in interpreting the FOMC meeting minutes, is inconsistent with the original dataset. The results are very similar to those for 1982m10 – 2005m12.

<sup>28</sup> Given Miller's short tenure, we have pooled Miller with Burns.

<sup>29</sup> We have chosen our measure of political pressure in the absence of strong evidence on the lifecycle of a bill's credibility. Our approach assumes that the proposal represents a zenith of credible pressure of the Fed. While there may be detectable unease in Congress prior to the sponsorship of a particular bill, if no Congressman has sponsored a bill, it is because none feel such a bill would gather the necessary support to progress. It is hard to understand why the Fed would act to diffuse a situation that has not yet gathered this minimal level of Congressional interest. Mere unrest is cheap talk until at least one Congressman has taken a public position by sponsoring a bill. Extending our window in the other direction to allow delayed responses to prior bills might allow for the possibility that bills gather support and increase in credibility while in committee, or for the possibility that the Fed realizes and responds to pressure with a longer lag. Both of these are possible. However, Weise's (2012) work on FOMC transcripts suggests that the Fed chairman and other board members are keenly aware of political pressure. A related question is whether one ought to consider not only the newest threatening bill but a cumulative measure of the number of threats awaiting action in committee. This is equivalent to the idea that a bill may have an effect beyond the month in which it is sponsored. Unfortunately, bills that are effectively dead nonetheless remain in committee until the end of the legislative term. Thus the choice of window length is about maximizing the ratio of signal-to-noise. Our results suggest that a one month window is a better choice than three.

<sup>30</sup> We have looked for more complex patterns such as allowing bills sponsored by a party controlling both chambers of Congress or the White House to be more credible and thus have a larger effect. We see no statistical evidence of this in large part because political control oscillates sufficiently slowly that splitting the sample by multiple indicators leaves some bins with relatively little data (e.g. a Democratic President with a Democratic Congress occurs only during Carter's two legislative terms.)

<sup>31</sup> Naturally these need not be the same Congressmen. Change may come both from a change in the views of existing Democratic Congressmen or by a changing of the guard.

**Table 1: System for classifying a bill's effect on the Federal Reserve System**

Category	Summary
[1]	<i>Revolutionary</i> : the bill fundamentally changes the monetary policy system or abolishes the Fed as we know it: (e.g. reinstate gold standard)
[2]	<i>Change in mandate</i> : the bill changes the philosophy and/or mandate of the Fed (e.g. ending dual mandate to focus solely on price stability)
[3]	<i>Extending Fed Powers</i> : open-ended goal with powers to match. Key: Fed has discretion in interpretation or enforcement. (e.g. in charge of new consumer protection standards.)
[4]	<i>Revoking Fed Powers</i> : opposite of [3]: removing a set of powers from the Fed. (e.g. transfer all financial sector oversight powers to the Treasury Department.)
[5]	<i>Dictating policy</i> : Congress legislating their preferred monetary policy outcome and simply directing the Fed to enforce. (e.g. setting an acceptable range for the federal funds rate or requiring lower interest rates for certain preferred industrial sectors)
[6]	<i>Transparency and accountability</i> : asking the Fed to testify on certain behaviors, submit to audits, etc.
[7]	<i>Referencing the Fed</i> as an expert without changing their powers. E.g. calling on them for testimony or to collect and publish data. Key: no discretion for the Fed, they are simply a tool.

**Table 2: Data Sources**

<b>Concept</b>	<b>Definition</b>	<b>Source</b>
Bill Data	Sponsors, dates, committee, summary	THOMAS
Voting data	Each legislator's vote (Y/N) on bills in our sample that reached the floor	<i>Voteview</i>
Unemployment	Monthly rate for state and national	BLS
Inflation	12 month % change in CPI (urban)	FRED
Interest Rates	Nominal 10 year t-bond yield	FRED
Ideology	Poole and Rosenthal DW-Nominate 1 <sup>st</sup> dimension score	<i>Voteview</i>
Legislator information	Dates in office, party affiliation	<i>Voteview</i>
Election outcomes	Vote percentage by party for each district	CQ Press Voting and Elections Collection
Committee Assignments	Members of Senate banking committee	Nelson and Stewart and Woon

**Table 3: Bills pertaining to the Federal Reserve  
by type and chamber of Congress, 1973-2010**

<b>House</b>	<b>Proposed</b>	<b>Reported to the Floor</b>		<b>Passed on the Floor</b>		
<b>Type</b>	<b>Freq.</b>	<b>Freq.</b>	<b>Marg.</b>	<b>Freq.</b>	<b>Marg.</b>	<b>Cum.</b>
1: Revolutionary	33	2	6.1%	0	0.0%	0.0%
2: Change Mandate	9	1	11.1%	1	100.0%	11.1%
3: Extend Powers	410	89	21.7%	64	71.9%	15.6%
4: Revoke Powers	78	16	20.5%	13	81.3%	16.7%
5: Dictate Policy	114	12	10.5%	7	58.3%	6.1%
6: Accountability	249	31	12.4%	25	80.6%	10.0%
7: Reference	375	104	27.7%	85	81.7%	22.7%
All bills	1114	201	18.0%	149	74.1%	13.4%
<b>Senate</b>	<b>Proposed</b>	<b>Reported to the Floor</b>		<b>Passed on the Floor</b>		
<b>Type</b>	<b>Freq.</b>	<b>Freq.</b>	<b>Marg.</b>	<b>Freq.</b>	<b>Marg.</b>	<b>Cum.</b>
1: Revolutionary	9	0	0.0%	0		0.0%
2: Change Mandate	2	0	0.0%	0		0.0%
3: Extend Powers	224	45	20.1%	32	71.1%	14.3%
4: Revoke Powers	37	8	21.6%	2	25.0%	5.4%
5: Dictate Policy	39	4	10.3%	2	50.0%	5.1%
6: Accountability	113	30	26.5%	19	63.3%	16.8%
7: Reference	174	50	28.7%	32	64.0%	18.4%
All bills	505	111	22.0%	69	62.2%	13.7%

Notes: The category “all bills” is not equal to the total of the eight individual categories because many bills are placed in more than one category. “Marg.” refers to the percentage of bills that proceed from one legislative step to the next. “Cum.” refers to the percentage of bill proposals that are passed on the floor.

**Table 4: Bills pertaining to the Federal Reserve with at least one cosponsor by type and chamber of Congress, 1973-2010**

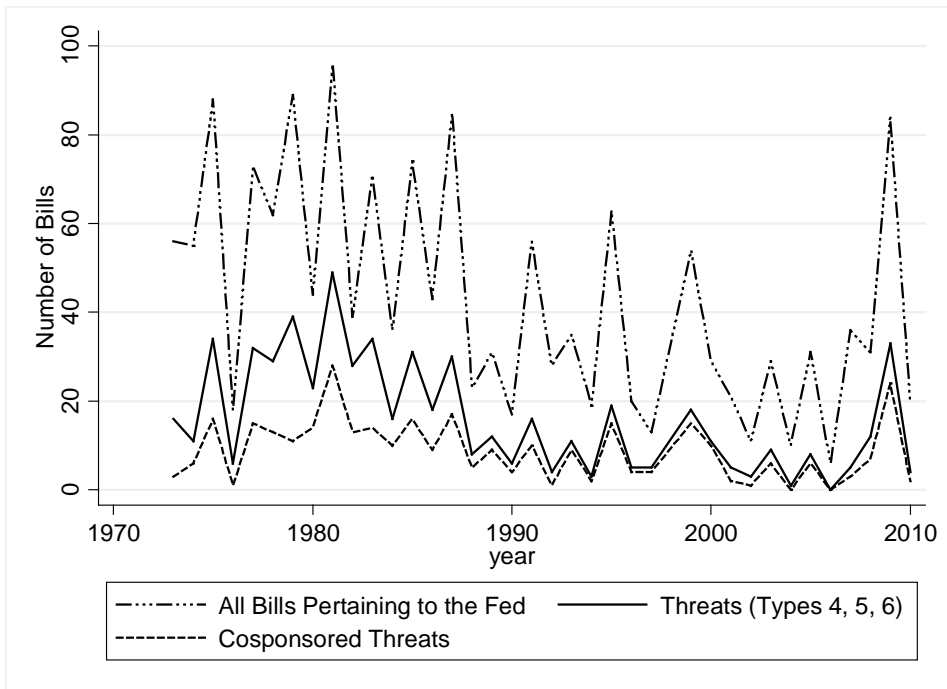
<b>House</b>	<b>Proposed</b>	<b>Reported to the Floor</b>		<b>Passed on the Floor</b>		
<b>Type</b>	<b>Freq.</b>	<b>Freq.</b>	<b>Marg.</b>	<b>Freq.</b>	<b>Marg.</b>	<b>Cum.</b>
1: Revolutionary	12	1	8.3%	0	0.0%	0.0%
2: Change Mandate	4	0	0.0%	0		0.0%
3: Extend Powers	228	66	28.9%	51	77.3%	22.4%
4: Revoke Powers	51	11	21.6%	9	81.8%	17.6%
5: Dictate Policy	54	4	7.4%	1	25.0%	1.9%
6: Accountability	135	22	16.3%	18	81.8%	13.3%
7: Reference	211	69	33.2%	59	84.3%	28.0%
All bills	610	190	21.8%	102	76.7%	16.7%
<b>Senate</b>	<b>Proposed</b>	<b>Reported to the Floor</b>		<b>Passed on the Floor</b>		
<b>Type</b>	<b>Freq.</b>	<b>Freq.</b>	<b>Marg.</b>	<b>Freq.</b>	<b>Marg.</b>	<b>Cum.</b>
1: Revolutionary	6	0	0.0%	0		0.0%
2: Change Mandate	2	0	0.0%	0		0.0%
3: Extend Powers	118	21	17.8%	15	71.4%	12.7%
4: Revoke Powers	19	1	5.3%	1	100.0%	5.3%
5: Dictate Policy	25	0	0.0%	0		0.0%
6: Accountability	59	18	30.5%	11	61.1%	18.6%
7: Reference	96	20	20.8%	15	75.0%	15.6%
All bills	274	50	18.2%	34	68.0%	12.4%

Notes: The category “all bills” is not equal to the total of the eight individual categories because many bills are placed in more than one category. “Marg.” refers to the percentage of bills that proceed from one legislative step to the next. “Cum.” refers to the percentage of bill proposals that are passed on the floor.

**Table 5: Frequent sponsors of legislation addressing the Fed**

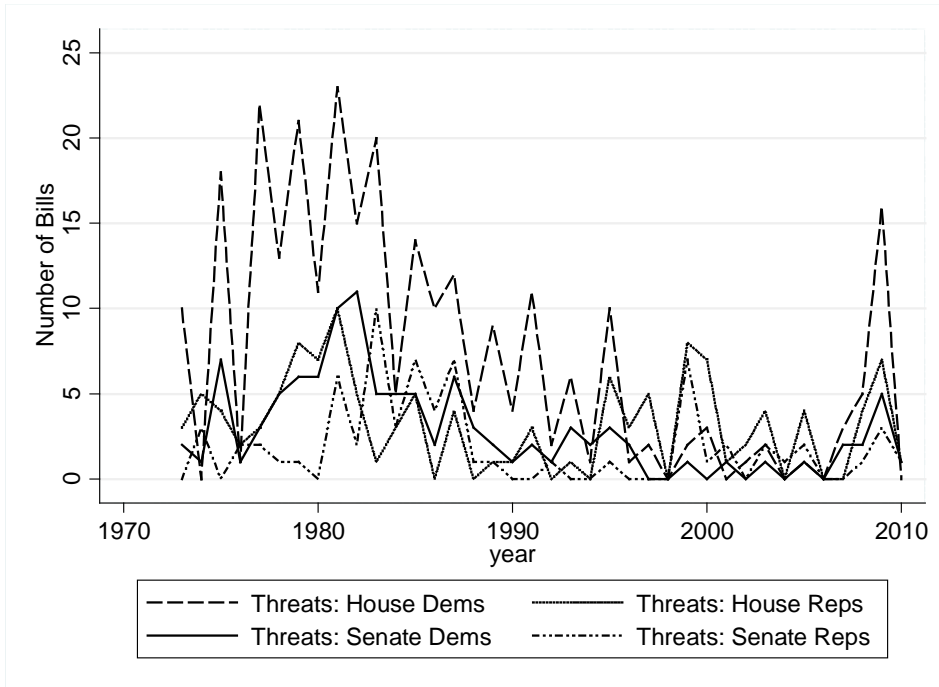
<b>Legislator</b>	<b>District(s)</b>	<b>Count</b>	<b>Fraction</b>
St Germain, Fernand	RI - 1	61	
Proxmire, William	WI	55	
Gonzalez, Henry	TX - 20	46	
Reuss, Henry	WI - 5	28	
Schumer, Charles	NY - 9 / NY	27	
LaFalce, John	NY - 29/36	26	
Dodd, Christopher	CT - 2 / CT	25	
7 different legislators		25+	16.6%
17 different legislators		11 – 24	19.0%
122 different legislators		3 – 10	35.8%
103 different legislators		2	12.7%
256 different legislators		1	15.8%

**Figure 1: Number of Bills Proposed Each Year Which Mention the Federal Reserve**





**Figure 2: Threatening Bills Sponsored: By Chamber and Party**



**Table 6:**  
**Determinants of sponsorship of bills pertaining to the Federal Reserve**

Bill Type (see Table 1)	Dependent variable: probability a congressman sponsored a bill of this type					
	(1)	(2)	(3)	(4)	(5)	(6)
	Senate			House		
	Extensions	Threats	References	Extensions	Threats	References
	[3]	[4,5,6]	[7]	[3]	[4,5,6]	[7]
<b>National Economic Conditions</b>						
National Unemployment Rate	1.106 (0.085)	1.226** (0.082)	0.937 (0.056)	1.016 (0.067)	1.150* (0.067)	0.981 (0.055)
National Inflation Rate	1.061 (0.041)	1.132** (0.051)	1.072 (0.041)	1.058 (0.046)	1.146** (0.035)	0.976 (0.036)
Real yield on 10-year T-bonds	0.995 (0.045)	1.154** (0.058)	1.011 (0.053)	1.076 (0.064)	1.049 (0.054)	0.955 (0.039)
Ln(Value of Failed Banks, Nationwide) (\$trillion)	1.026 (0.025)	1.005 (0.021)	1.039* (0.019)	1.017 (0.023)	0.991 (0.016)	1.025 (0.016)
<b>Local Economic Conditions</b>						
Rep's State Unemployment Rate	0.994 (0.067)	1.009 (0.063)	0.974 (0.064)	0.807** (0.049)	0.919 (0.061)	0.903 (0.054)
-National Unemployment Rate						
Rep's Regional Inflation	1.123 (0.237)	1.065 (0.169)	1.193 (0.240)	1.06 (0.164)	0.976 (0.125)	1.12 (0.167)
- National Inflation						
Ln(Value of Failed Banks in Reps' state)	1.001 (0.018)	0.997 (0.018)	1.029 (0.019)	1.029 (0.018)	0.987 (0.013)	1.02 (0.014)
- Ln(Value of Failed Banks nationally)						
<b>Political Conditions</b>						
Rep's party controls the WH	0.926 (0.199)	1.066 (0.239)	0.88 (0.182)	0.979 (0.208)	1.037 (0.223)	1.006 (0.139)
Rep's party has a majority in chamber	2.094** (0.464)	1.174 (0.221)	1.860** (0.353)	2.476** (0.643)	1.827** (0.398)	2.316** (0.414)
DW-nominate score (positive is conservative)	0.353 (0.220)	0.527 (0.289)	0.677 (0.299)	0.518* (0.166)	0.689 (0.239)	0.725 (0.219)
Reps' Upcoming re-election was close (vote difference < 10%)	1.256 (0.476)	0.947 (0.202)	1.273 (0.338)	0.625 (0.153)	0.997 (0.207)	0.617* (0.140)
First year of the Congress	1.811** (0.303)	2.023** (0.244)	2.635** (0.480)	2.100** (0.331)	2.285** (0.364)	2.154** (0.292)
N	41912	41912	41912	182000	182000	182000
Panel DW statistic	1.905	1.872	1.910	1.795	1.874	1.942

Notes: This table presents coefficient estimates relating sponsorship activity by an individual legislator in a particular month to current economic and political conditions of that legislator, his/her district, and the country as a whole. The method of estimation is King and Zeng's rare events logit. Coefficients reported are odds ratios. Standard errors are reported in parentheses. \*\* and \* indicate the coefficient estimate is statistically distinct from 1 at the 1% and 5% levels respectively.

**Table 7:**  
**Determinants of voting on bills pertaining to the Federal Reserve**

Bill Type (see Table 1)	Dependent var.: probability a congressman votes in favor of a bill of this type					
	(1)	(2)	(3)	(4)	(5)	(6)
	Senate			House		
	Extensions	Threats	References	Extensions	Threats	References
	[3]	[4,5,6]	[7]	[3]	[4,5,6]	[7]
<b>National Economic Conditions</b>						
National Unemployment Rate	0.843**	0.934	0.901	0.938	0.937	0.988
	-0.051	-0.048	-0.056	-0.046	-0.039	-0.047
National Inflation Rate	1.032	1.024	1.032	1.117**	1.128**	1.01
	-0.034	-0.031	-0.035	-0.045	-0.043	-0.032
Real yield on 10-year T-bonds	1.100**	0.966	1.022	1.022	1.024	0.975
	-0.04	-0.032	-0.038	-0.03	-0.024	-0.029
Ln(Value of Failed Banks, Nationwide)	1.040*	1.045*	1.028*	0.993	1.005	1
	-0.016	-0.02	-0.013	-0.013	-0.014	-0.01
<b>Local Economic Conditions</b>						
Rep's State Unemployment Rate	0.999	0.988	1.012	1.001	0.999	0.997
-National Unemployment Rate	-0.015	-0.007	-0.014	-0.008	-0.008	-0.008
Rep's Regional Inflation	1.019	0.935	1.012	1.03	1.068*	1.019
- National Inflation	-0.06	-0.037	-0.069	-0.058	-0.033	-0.049
Ln(Value of Failed Banks in Reps' state)	0.996	1.010*	1	0.994	0.998	1.004
- Ln(Value of Failed Banks nationally)	-0.005	-0.004	-0.008	-0.004	-0.004	-0.004
<b>Political Conditions</b>						
Rep's party controls the WH	0.6	0.432**	0.694	0.771	0.833	0.867
	-0.16	-0.107	-0.13	-0.155	-0.187	-0.155
Rep's party has a majority in chamber	0.84	1.305	0.814	0.746	0.907	0.971
	-0.219	-0.327	-0.149	-0.147	-0.204	-0.17
DW-nominate score	0.491*	1.817*	0.915	0.707	0.979	0.686
(positive is conservative)	-0.159	-0.448	-0.23	-0.164	-0.254	-0.155
Reps' Upcoming re-election was close	0.972	0.938	1.059	0.951	0.934	1.006
(vote difference < 10%)	-0.075	-0.054	-0.088	-0.056	-0.05	-0.044
N	14841	23272	22415	74039	72195	95251

Notes: This table presents coefficient estimates relating the vote of an individual legislator in a particular month to current economic and political conditions of that legislator, his/her district, and the country as a whole. Coefficients reported are odds ratios. Standard errors are reported in parentheses. \*\* and \* indicate the coefficient estimate is statistically distinct from 1 at the 1% and 5% levels respectively.

**Table 8:**  
**How determinants of Sponsorship have Varied Across Fed Chairmanships**

	Dep. Var.: probability a congressman has sponsored a bill threatening the Fed							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All	Senate		Republicans	All	House		Republicans
	All	Democrats	All		All	Democrats		
Bill cosponsored by member of this party								
Unemployment Rate * Chairman Burns	1.027 (0.083)				0.91 (0.078)			
Unemployment Rate * Chairman Volcker	1.097 (0.065)				0.964 (0.050)			
Unemployment Rate * Burns/Miller/Volcker		1.210** (0.081)	1.371** (0.110)	1.038 (0.111)		1.155* (0.076)	1.236** (0.091)	0.924 (0.107)
Unemployment Rate * Chairman Greenspan	0.834 (0.105)	0.959 (0.123)	1.115 (0.209)	0.805 (0.140)	0.714** (0.072)	0.939 (0.110)	0.962 (0.142)	0.853 (0.132)
Inflation Rate * Chairman Burns	0.942 (0.062)				1.044 (0.082)			
Inflation Rate * Chairman Volcker	0.978 (0.027)				1.042 (0.030)			
Inflation Rate * Burns/Miller/Volcker		0.966 (0.039)	1.031 (0.032)	0.867* (0.057)		1.076* (0.037)	1.058 (0.041)	1.134* (0.062)
Inflation Rate * Chairman Greenspan	1.027 (0.144)	1.066 (0.148)	1.262 (0.226)	0.806 (0.171)	1.253* (0.138)	1.336** (0.144)	1.388** (0.161)	1.222 (0.224)
First Year of the Congress	1.730** (0.228)	1.661** (0.240)	1.420 (0.274)	2.240** (0.634)	2.157** (0.367)	2.272** (0.426)	2.499** (0.555)	1.822 (0.560)
N	39642	37947	19469	18271	172504	165109	91999	72690
Panel DW statistic	1.857	1.857	1.814	1.943	1.855	1.855	1.840	1.891
F-Test: Unemployment Coefficients Equal		5.4	2.09	3.25		5.89	5.66	0.388
p-value		0.0202	0.148	0.0716		0.0152	0.0174	0.533
F-Test: Inflation Coefficients Equal		0.516	1.268	0.129		4.221	5.925	0.153
p-value		0.473	0.26	0.72		0.04	0.015	0.695

Notes: This table presents coefficient estimates relating sponsorship activity by an individual legislator in a particular month to current economic and political conditions of that legislator, his/her district, and the country as a whole. The method of estimation is King and Zeng's rare events logit. Coefficients reported are odds ratios. Standard errors are reported in parentheses. \*\* and \* indicate the coefficient estimate is statistically distinct from 1 at the 1%, and 5% levels respectively.

**Table 9:**  
**Base Money Growth and the Senate Banking Committee**

	Dependent variable: Base Money Growth Rate		
	(1)	(2)	(3)
	1948q1 – 2007q4	1948q1 – 1984q4	1985q1 – 2007q4
Lag of quarterly GNP growth rate	0.294** (0.100)	0.348** (0.100)	-0.165 (0.350)
Lag of Government Deficit	74.701** (13.560)	82.749** (16.680)	19.924 (28.670)
Lag of Change in 3-month T-bill yield	-0.937* (0.420)	-0.729 (0.460)	-1.949 (1.030)
Median member of Senate banking committee (DW-Nominate score: conservative is positive)	-2.294 (1.620)	-7.589** (2.410)	-2.769 (2.780)
Constant	2.690** (0.770)	1.252 (0.830)	7.102** (2.310)
N	239	147	92
F	10.81	12.69	2.5
R-squared	0.156	0.263	0.103
Transformed DW-statistic	1.958	1.994	1.952
dL	1.755	1.675	1.571
dU	1.822	1.787	1.752

Notes: This table explains the growth rate of the base money supply as a function of the ideology of the median member of the Senate banking committee as well as several economic variables. The specification closely follows Grier (1991). Standard errors are reported in parentheses. \*\*, \* indicate the coefficient estimate is statistically distinct from 0 at the 1%, 5% levels respectively.

**Table 10**  
**Congressional pressure and the Federal Funds Rate**

	Dependent Variable: Romer and Romer monetary policy shock											
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
	Burns/Miller 1973m1 – 1979m9				Volcker 1982m10 – 1987m9				Greenspan 1987m10 - 2005m12			
# of cosponsored Bills (type 3) introduced last month	-0.006 (0.023)				0.0003 (0.015)				-0.0003 (0.008)			
# of Bills (types 4, 5, 6) introduced last month		-0.023 (0.013)				0.002 (0.009)				0.002 (0.008)		
# of cosponsored Bills (types 4, 5, 6) introduced last month			-0.046* (0.023)	-0.044 (0.023)			0.024 (0.017)	0.024 (0.017)			0.012 (0.010)	0.010 (0.010)
# of cosponsored Bills (types 4, 5, 6) introduced two months ago				-0.013 (0.023)				0.004 (0.017)				0.017 (0.010)
# of cosponsored Bills (types 4, 5, 6) introduced three months ago				0.032 (0.024)				-0.008 (0.016)				-0.004 (0.010)
Senate Banking Committee Median (positive is conservative)	-1.689 (1.717)	-2.347 (1.663)	-1.952 (1.667)	-2.259 (1.718)	-0.367 (0.382)	-0.360 (0.370)	-0.266 (0.367)	-0.268 (0.382)	-0.044 (0.052)	-0.043 (0.052)	-0.047 (0.051)	-0.049 (0.052)
Constant	-0.429 (0.405)	-0.543 (0.386)	-0.462 (0.391)	-0.555 (0.404)	0.054 (0.042)	0.049 (0.043)	0.019 (0.043)	0.024 (0.053)	0.022 (0.013)	0.019 (0.013)	0.016 (0.012)	0.011 (0.014)
N	80	80	80	78	58	58	58	58	219	219	219	219
Adjusted R-squared	-0.013	0.027	0.036	0.042	-0.018	-0.017	0.020	-0.011	-0.006	-0.006	0.001	0.004
Transformed DW statistic	1.887	1.880	1.899	1.914	2.002	2.000	1.997	1.991	2.019	2.018	2.013	2.012
d <sub>L</sub>	1.586	1.586	1.586	1.534	1.505	1.505	1.505	1.432	1.761	1.761	1.761	1.742
d <sub>U</sub>	1.688	1.688	1.688	1.743	1.647	1.647	1.647	1.726	1.800	1.800	1.800	1.816

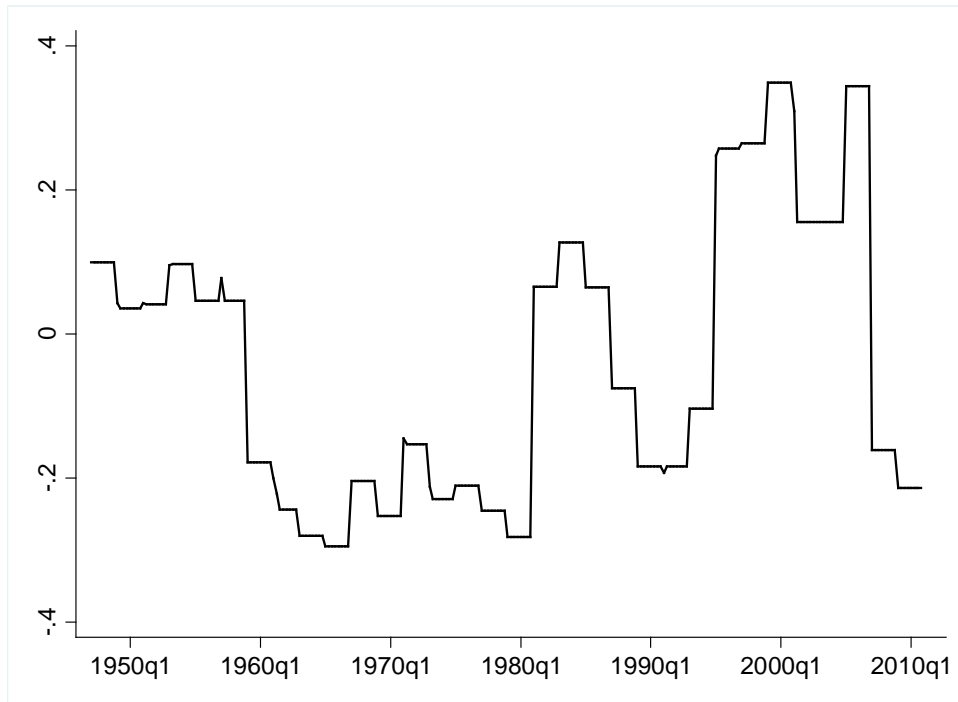
Notes: This table explains monetary policy shocks as a function of legislative pressure. The measure of monetary policy shocks is that of Romer and Romer (AER 2004), extended by the authors through 2005m12. As such, this measure already accounts for adjustments to current and forecasted economic conditions and represents the unanticipated component of changes in the federal funds rate. Standard errors are reported in parentheses. \*\* and \* indicate the coefficient estimate is statistically distinct from 0 at the 1% and 5% levels respectively.

**Table 11**  
**Congressional Pressure and the Federal Funds Rate by Party**

	Dependent Variable: Romer and Romer monetary policy shock					
	[1]	[2]	[3]	[4]	[5]	[6]
	Burns/Miller 1973m1 – 1979m9		Volcker 1982m10 – 1987m9		Greenspan 1987m10 - 2005m12	
# of cosponsored Bills (type 3) introduced last month by Democrats	-0.019 (0.026)		0.007 (0.019)		-0.014 (0.014)	
# of cosponsored Bills (type 3) introduced last month by Republicans	0.077 (0.064)		-0.022 (0.042)		0.010 (0.011)	
# of cosponsored Bills (types 4,5,6) introduced last month by Democrats		-0.049* (0.024)		0.027 (0.020)		0.027 (0.014)
# of cosponsored Bills (types 4,5,6) introduced last month by Republicans		-0.017 (0.057)		0.013 (0.037)		-0.010 (0.018)
Senate Banking Committee Median (positive is conservative)	-1.811 (1.787)	-1.987 (1.680)	-0.332 (0.388)	-0.270 (0.373)	-0.061 (0.054)	-0.022 (0.053)
Constant	-0.459 (0.421)	-0.471 (0.394)	0.052 (0.043)	0.021 (0.043)	0.025 (0.013)	0.013 (0.012)
Test Rep = Dem (Prob > F)	0.178	0.590	0.571	0.737	0.216	0.130
N	80	80	58	58	219	219
Transformed DW Statistic	1.868	1.897	2.002	2.000	2.020	2.011
d <sub>L</sub>	1.560	1.560	1.469	1.469	1.752	1.752
d <sub>U</sub>	1.715	1.715	1.686	1.686	1.807	1.807

Notes: This table continues Table 11, now allowing the influence of bills to depend on the party of the sponsor. The measure of monetary policy shocks is that of Romer and Romer (AER 2004), extended by the authors through 2005m12. As such, this measure already accounts for responses to current and forecasted economic conditions and represents the unanticipated component of changes in the federal funds rate. Standard errors are reported in parentheses. \*\* and \* indicate the coefficient estimate is statistically distinct from 0 at the 1% and 5% levels respectively.

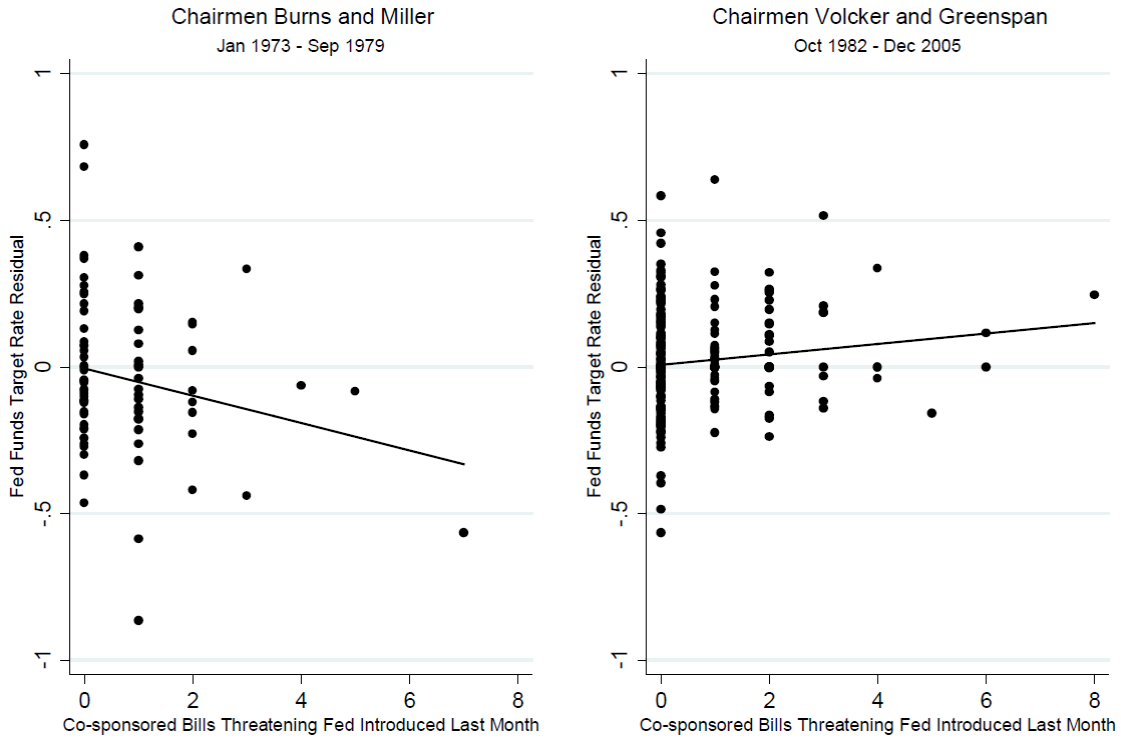
**Figure 3: Ideology of the Senate Banking Committee**



**Notes:** This figure plots the DW-Nominate score of the median member of the Senate Banking Committee (positive is conservative). When the committee consists of an even number of members, the arithmetic average of the co-medians is plotted. While the variation is largely driven by the oscillating partisan control of the Senate (which determines which party nominates a majority of the committee), there is some variation within a given party's control.



**Figure 4: The Changing Fed Response to Congressional Pressure**



**Notes:** This is the graphical equivalent of table 10, row 3. The Romer and Romer residual is plotted against the number of co-sponsored bills introduced last month that threaten the prerogatives of the Fed. Data are monthly and run from the beginning of our bills data (Jan 1973) through the most recent Greenbook data available at the time of analysis (Dec 2005). The change in Fed behavior seems to occur between Chairmen Miller and Volcker, so we split the sample at that point. Under Chairmen Burns and Miller, the Fed responds to pressure by easing while under chairmen Volcker and Greenspan, there is no statistically significant response to Congressional pressure.

## **Appendix: Discussions of Congress in the FOMC minutes.**

We have read through the minutes of the FOMC meetings from our sample period (Jan 1973 – Dec 2005) in search of discussions about interacting with Congress. There are several clear lessons. First, most of the discussion regarding Congress is about projecting the likely path of fiscal policy. Greenbook forecasts include specific assumptions and projections about likely tax and appropriations policies which are sometimes discussed and debated by the FOMC (see the FOMC transcripts from November 6, 2002; March 18, 2003; May 6, 2003; and June 24-5, 2003 for FY 2003 alone). Moreover, these discussions show clearly that the Fed pays attention to developments in Congress at a high frequency (e.g. Dec 14, 2004; May 15, 2001; July 2-3, 1996) and evaluates the situation and strategy of political actors (e.g. July 5-6, 1995; August 22, 1995; July 2-3, 1996; Dec 14, 2004; Nov 10, 2004; July 7, 1987; February 7-8, 1989). It is also evident that the chairman and sometimes other members have discussions with senators about relevant bills (e.g. February 2-3, 1999; Dec 20, 1977) and evaluate probabilities of legislation affecting the Fed (e.g. June 27-8, 2000; December 19, 2000; September 26, 1995; Dec 18-19, 1989; April 29, 1983). It is difficult to believe that this detailed political expertise is not deployed in the service of the Fed when faced with legislation directly affecting the organization of the Fed. Indeed, there is evidence that the chairman keeps track of such bills, considers clauses individually, keeps tab on sponsorship and co-sponsorship of these bills, and tracks the sentiment of relevant committees (e.g. September 26, 1995; January 13, 1995; February 28, 1994; September 23-4, 1993; July 2-3, 1991; December 18-19, 1989). There are also discussions of how to respond to bills in play that might adversely affect the Fed (July 9, 1980 is a nice example). Nonetheless, such discussions are relatively rare and basically never mention policy accommodation (August 23, 1983 and July 2-3, 1991 are as close as it gets). This may seem problematic for the view that legislative pressure can engender monetary policy accommodation. However, these transcripts are by no means a full record—many relevant conversations occur via other channels—and the discussion is affected by the knowledge of future publication. This is clearly true after 1995 when all concerned knew the transcripts were to become public. But it is also true long before then, almost to the

beginning of our sample period as a result of the Sunshine in Government Act of 1976 which raised the potential for compelled disclosure of FOMC minutes. The implications of this Act are discussed a great deal in the FOMC minutes of the era and it quite clearly affects FOMC conduct. For example, in the meeting of May 1<sup>st</sup>, 1976, Chairman Burns explicitly interrupts a political discussion so as to avoid any record being kept. *“Let me just interrupt. I think this is a statement that literally should be kept to ourselves. We should not--no member of the Committee should discuss that with any of his aides or anyone else at any time because we run the risk of amendment that might make life a good deal more difficult for us.”* A similar situation is recorded in the meeting of January 31, 1984. Finally, the minutes released are “lightly edited”, a phrase whose meaning is unknown. In sum, it is hard to believe that sensitive political discussions would be conducted at the FOMC meetings or allowed to remain in the released version of these minutes. On the other hand, it seems quite clear that the Fed is a sophisticated political analyst and the Fed chair in particular pays attention to politicians and legislative proposals at a high frequency.