Does Congress Influence Federal Reserve Policy? Evidence from Shared Allegiance and Election Periods

Rishabh Golchha*

Abstract

I estimate various backward-looking and forward-looking Taylor rules augmented with variables that indicate proximity to an election and whether the Fed Chair and the majority of a chamber of Congress share the same political party affiliation to investigate whether Congress has influenced Federal Reserve policy from 1961 to 2020. I find that the Fed is susceptible to pressures from the Senate. In line with previous work, left-leaning politicians exhibit a higher tolerance for inflation. This results in the federal funds rate being lower by about 2.35 points when the Democratic party has a Senate majority. Second, while I find some evidence that the House and the Fed Chair sharing partisan affiliation results in tighter policy, this result is not robust to alternative measures of inflation. Finally, I find persuasive evidence that Congressional pressures on the Fed do not create a political monetary cycle around elections.

JEL Classification: C32, C36, D72, E52, E58, N12

Keywords: central bank independence, political pressure, monetary policy, inflation

*Undergraduate Thesis in Economics; Haverford College, 370 Lancaster Ave, Haverford PA, 19041, USA. Last updated: April 23, 2023. Email: rgolchha@haverford.edu. First and foremost, I would like to thank my advisor Carola Conces Binder for her constant support and research mentorship throughout this process and the three years we have worked together. Additionally, I would like to thank Cameron Gavaler, Gabriel Sekeres, and Giri Parameswaran for their suggestions and feedback. I would also like to thank Norm Medeiros for ensuring work reproducibility, and all faculty members of the Haverford Economics and Math Departments, Kim Minor, and my parents for facilitating various invaluable learning experiences for me.

Contents

1 Introduction **3**

2 Surrounding Literature **4**

3 Data and Methodology **7**

3.1 Background on Taylor Rules 7

3.2 Political Monetary Cycles around Congressional Elections 9

3.3 Partisan Political Monetary Cycles 11

4 Results **14**

4.1 Political Monetary Cycles 14

4.2 Partisan Political Monetary Cycles 16

4.3 Excluding the Nixon-Burns Era 21

5 Robustness Checks **24**

6 Conclusion **25**

1 Introduction

There is widespread consensus that central bank independence leads to better outcomes, such as lower and more stable price levels (Rogoff, 1985; Alesina and Summers, 1993), increased credibility (Bordon and Siklos, 2015; Binder, 2021a), and lower costs associated with inflation-fighting measures (Ito, 2010; Goodfriend, 2007). Economists use various methods to gauge central bank independence. One approach is to study whether monetary policy tends to be looser in the run-up to major elections. Since the benefits of monetary expansion are often reaped before the costs of inflation are incurred, electoral pressures would motivate "shortsighted politicians with... eyes on elections... to inflate too much" (Blinder, 1997, p. 118). A political monetary cycle around elections indicates that the Federal Reserve is susceptible to electoral pressures (Nordhaus, 1975; Abrams and Iossifov, 2006).

The vast majority of literature that studies Federal Reserve independence through political monetary cycles (PMCs) is centered around pressures exerted by the executive branch and finds no significant evidence for expansionary trends before general elections (Beck, 1987; Allen and McCrickard, 1991; Leertouwer and Maier, 2001). However, Abrams and Iossifov (2006) observe that the Fed eases monetary policy before Presidential elections when the candidate and the Chair of the Federal Reserve share allegiance to the same political party.

I study whether the Federal Reserve responds to pressures exerted by the legislative branch around elections. I contribute to the surrounding literature in two significant ways. First, I expand the scope of previous works by considering whether certain politicians are more likely to leverage their posts in the legislative branch to influence monetary policy for electoral gain. I additionally conduct tests for when the majority of the House or the Senate belong to the same party as the President that initially appointed the Fed Chair. Second, I leverage the natural interest rate measure developed by Holston, Laubach, and Williams (2017) to address some of the attenuation bias that using the lagged federal funds rate may induce.

I analyze the monetary policy response by estimating various backward and forward-looking Taylor rules augmented with partisan and election cycle indicator variables. The findings suggest that the Federal Reserve is susceptible to pressures exerted by the Senate since monetary policy is significantly influenced by which party has a majority in the Senate. This finding is generally robust to alternate specifications and in line with *a priori* expectations, given that the United States Senate is responsible for confirming seven of twelve Federal Open Market Committee (FOMC) members. The Fed also conducts tighter policy when the Chair shares allegiance with the party with a majority in the House. Though this finding is not robust to alternative specifications, it provides some insight into the inner workings of the Fed. Finally, I find no evidence that Congressional pressures on the Fed create a political monetary cycle around elections.

This paper is organized as follows. Section 2 contextualizes this work within much of the relevant literature. Section 3 summarizes the data and outlines the methodology. Section 4 interprets the results. Section 5 overviews various robustness checks, and Section 6 concludes.

2 Surrounding Literature

It is widely agreed that independent central banks are more effective at achieving macroeconomic stability than banks under political pressures (Alesina and Summers, 1993; Goodfriend, 2007; Bernanke, 2010; Bordo and Siklos, 2015). As such, it is concerning that elections may incentivize behavior that prioritizes short-term benefits at the cost of long-term economic growth (Blinder, 1997). Since central bank independence is often difficult to observe, economists gauge autonomy by examining the prevalence of political monetary cycles.

The political monetary cycle (PMC) hypothesis predicts that subservient central banks pursue expansionary policies during important elections (Abrams, 2006). Politicians will pressure central banks to improve short-term economic conditions, such as lowering unemployment,

for electoral gain (Nordhaus, 1975; Blinder, 1997; Abrams and Iossifov, 2006). Abrams (1980) provides empirical evidence that the average US voter, regardless of political party affiliation, tends to credit the incumbent President for favorable economic conditions. Using a difference-in-differences model with campaign spending controls, he finds that state-level economic conditions, such as unemployment and real per capita income, significantly correlate with candidate votes. Members of Congress may push for expansionary monetary policy in the period leading up to elections for similar reasons.

Nearly all such studies of the Federal Reserve's independence emphasize the pressures exerted by the executive branch (Beck, 1987; Allen and McCrickard, 1991; Leertouwer and Maier, 2001; Abrams and Iossifov, 2006). By and large, studies until the 2000s rejected the PMC hypothesis. Using a vector autoregression model with controls for fiscal policy, Beck (1987) finds no evidence that upcoming general elections coincide with increases in the M1 money supply. Beck (1987) further analyzes the Fed's two mechanisms to affect the money supply, the contemporaneous growth rate of nonborrowed bank reserves and the federal funds rate. He finds no indication that either follows a political cycle. Allen and McCrickard (1991) use a first-difference logarithmic regression model of the monetary base on one-year lagged M1 money supply, real GNP, and other macroeconomic covariates. Their specification finds no significant evidence for a monetary base political cycle in the two years leading up to the Presidential elections in 1930–1949. Leertouwer and Maier (2001) use an autoregressive panel data model to investigate quarterly M1 money supply with country fixed effects on a pooled sample of OECD countries. The authors conclude that the political monetary cycle hypothesis does not apply to the 16 studied countries.

In contrast with previous work, Abrams and Iossifov (2006) find evidence of a political monetary cycle during pre-election periods when the incumbent President and Fed Chair share party allegiance. The authors estimate a Taylor rule using data from 1957 to 2004.

The authors argue that the Fed Chair has disproportionate sway over policy decisions of the Federal Open Market Committee. Accordingly, they use the political allegiance of the Chair as a proxy for the political leanings of the system. The preferred specification includes a variable indicating pre-election periods when the Fed Chair shares allegiance with the President. The authors claim that the Chair's political alliance could be a consideration in policy-setting, pointing out that, since 1956, "no Republican president has failed to reappoint a Republican-appointed chair nor has any Democrat..." (Abrams and Iossifov, 2006, p. 254).

While the President is in charge of nominating members to the Federal Reserve Board of Governors, the Senate confirms them. The ability to hold a central banker's post at ransom provides a channel through which politicians could influence policy. Further, there is evidence that President Nixon pressured erstwhile Fed Chair Burns to enact expansionary policy during the 1972 Presidential elections (Abrams, 2006), providing a precedent for other elected officials to do something similar. However, only a small number of papers examine the pressures exerted by the legislative branch on the Federal Reserve. Further, none of this research controls for the effects of partisanship and shared political allegiance. Allen and McCrickard (1991) is one example of studying the impact of Congressional elections on Fed policy. While the authors do not find evidence of a political monetary cycle around Congressional elections, they do not control for the impact of partisanship.

The notion that the Fed is independent within, rather than from, the government provides us with key insight into how Congress can pressure it for looser monetary policy. Congress has several mechanisms for influencing the Fed, many of which are related to Congress's role in the appointments and confirmation process. Congress could also influence Fed policymaking through the implicit or explicit threat of new legislation that would constrain the Fed or subject it to unwelcome requirements. There is a long and well-documented history of such threats. For example, in 1937, Wright Patman, a Democratic congressman from Texas,

outraged by commercial banks' ownership of Fed stock, attempted to nationalize the Federal Reserve. Over the years, "he made things uncomfortable [for the Fed] with a virtual nonstop assault... in one instance, he sent Fed officials 245 questions that took nine months and $100,000 in research to answer" (Todd, 1970, p. 35). At many points during his tenure, Patman "called either the full FOMC or the Federal Reserve governors to testify" (Todd, 1970, p. 36). He even called for a limit on interest rates to disallow the Fed from practicing policy he deemed overly contractionary (Owens, 1985, 189). Later in the century, Henry Gonzalez, head of the House Banking Committee, introduced a bill to have "FOMC meetings video-recorded with the tapes broadcast 60 days later" (Todd, 1970, p. 49).

Notwithstanding the true motives behind the politicians arguing for greater accountability, their demands echo. For example, in 2021, Kentucky Senator Rand Paul demanded to have the Government Accountability Office audit the Fed. Debates of such proposals have increasingly become mainstream, often alleging that Congress veils its hopes to pressure the Fed—potentially for political gain—as demands for greater accountability (Mordfin, 2013; Bernanke, 2016; Paul, 2021). Gaining insight into the history of Congressional pressures on the Fed would help assess if such policies could threaten central bank independence.

3 Data and Methodology

3.1 Background on Taylor Rules

Taylor (1993) observed that the policy response of the Federal Reserve in the years leading up was well-described by a simple rule based on the federal funds rate and two macroeconomic variables: the contemporaneous output gap and inflation. In principle, the Fed is to respond to a rise in any by increasing its policy rate, often called the "federal funds rate." This rule concurs with the Fed's dual mandate of stable prices and maximum sustainable employment.

Federal funds rate data are published by the Board of Governors of the Federal Reserve System. The data are not seasonally adjusted and are measured in percentages. The quarterly data used to construct the output gap measure comes from the Real Gross Domestic Product (GDP) and the Real Potential GDP measures published by the Bureau of Economic Analysis and the Congressional Budget Office, respectively. The real GDP measure is seasonally adjusted, while the real potential GDP measure is not. In line with previous literature (Romer and Romer, 2002), I compute the output gap as

$$(Y - \bar{Y})_t = \frac{Y_t - \bar{Y}_t}{\bar{Y}_t} \times 100,$$

where Y_t is real GDP and $\bar{Y}_t$ is real potential GDP. Inflation is the year-over-year percentage change in the headline consumer price index (CPI) measure. To align with the output gap measure, it is made quarterly. Data is obtained from the Bureau of Labor Statistics.

Using the coefficients generated from the above canonical Taylor rule, I create a time series of the Taylor rule implied interest rates. Figure 1 plots the mean of this time series and the observed federal funds rate at each quarter of an election cycle. Quarter 1 is the first quarter of the calendar year following a Congressional election. Congressional elections are held every two years.

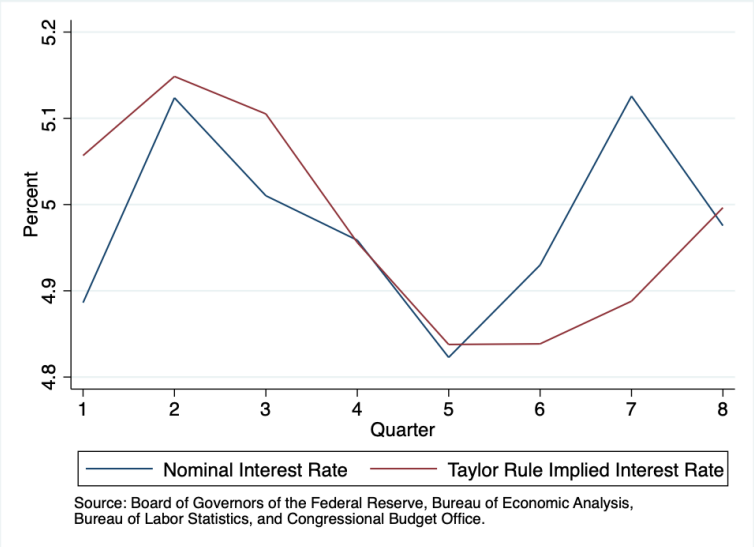

Figure 1: Average Observed and Taylor Rule Implied Federal Funds Rate (1960:1–2020:1).

Here, the federal funds rate tends to most significantly deviate from the Taylor rule implied rate in the quarter before an election. Motivated by this, I augment the Federal Reserve monetary reaction functions with various political and electoral cycle variables to investigate whether Congress pressures the Federal Reserve.

3.2 Political Monetary Cycles around Congressional Elections

Two major Congressional elections occur in the United States: the presidential and midterm elections. The voting for all elections takes place in November of the election year. The variable $CongElect_t$ indicates the last two quarters of an election year. For example, the 2022 midterm elections result in the variable being equal to one for 2022:3-2022:4. The Presidential election cycle dummy variable, $PresElect_t$, is one for the final two quarters of a year with a Presidential election and zero for all others. As such, the Congressional election indicator variable is equal to one for all quarters that the Presidential election variable is one, but the converse is not true.

The basic political monetary hypothesis suggests that the Federal Reserve would practice looser monetary policy, by decreasing the federal funds rate, in the quarters leading up to an election. This hypothesis is tested by estimating the following backward-looking and forward-looking Taylor rules.

$$i_t = \beta_0 + \beta_1(Y - \bar{Y})_t + \beta_2\pi_t + \beta_3 r_t^* + \beta_4 CongElect_t + \beta_5 PresElect_t + \varepsilon_t \quad (1)$$

$$i_t = \beta_0 + \beta_1 \mathrm{E}_t\left[(Y - \bar{Y})_{t+1}\right] + \beta_2 \mathrm{E}_t\left[\pi_{t+1}\right] + \beta_3 r_t^* + \beta_4 CongElect_t + \beta_5 PresElect_t + \varepsilon_t \quad (2)$$

The federal funds rate, i_t, is the dependent variable. In the backward-looking Taylor rule, the measures of the contemporaneous output gap, $(Y - \bar{Y})_t$, and inflation, π_t, are used as independent variables. The forward-looking specification uses current expectations of one quarter ahead output gap and inflation instead. In addition, the natural rate of interest, r_t^*, and indicator variables for proximity to Presidential and Congressional elections are included. Newey-West standard errors with a lag of three quarters ensure that estimates derived from backward-looking Taylor rules are heteroskedasticity and autocorrelation robust.

A forward-looking Taylor rule considers that the Federal Reserve often will set its nominal interest rate target in response to expected future values of these metrics (Clarida, Gali, and Gertler, 2000; Romer and Romer, 2002). Following Romer and Romer (2002), I instrument for the expected output gap and inflation using contemporaneous measures of both and two lags of inflation. Lags of inflation are included because it fluctuates more than the output gap. An F-test confirms that the estimates do not suffer from a weak instrumentation problem.[1]

In my preferred model, I use the natural rate of interest measure developed by Holston, Laubach, and Williams (2017) as an independent variable. The Federal Reserve Bank of New York maintains this publicly available quarterly time series. Previous literature has used the

[1]The F-statistic is jointly reported for the expected output gap and the expected inflation against the null that the excluded instruments are irrelevant in the first stage. The reported value of 297.611 is considerably greater than the conventional threshold of 10 (Staiger and Stock, 1997).

federal funds rate to account for smoothing behavior. However, using the lagged federal funds rate as an independent variable for a quarterly study could lead to attenuation bias. Any political pressures on the Fed in an election quarter likely originated in the previous quarter. I opt for the natural rate of interest in an attempt to avoid running into this issue. Further, conventional Taylor rules conjecture that the real federal funds rate remains constant in the long run. Using the natural rate of interest as an independent variable loosens this condition (Carlstrom and Fuerst, 2016). Due to limitations with the natural rate of interest measure, this study is restricted to data from the first quarter of 1961 to the first quarter of 2020.[2]

The coefficients on the election cycle indicator variables are of primary interest: β_4 provides an estimate for the impact of a Congressional election, and β_5 is an estimate for the differential effect of a Presidential election. If $\beta_4 < 0$, proximity to a Congressional election is seen to loosen monetary policy. If $\beta_4 + \beta_5 < 0$, proximity to a Presidential election is seen to ease monetary policy.

3.3 Partisan Political Monetary Cycles

First, I use publicly available data from the United States Congress to study partisan political monetary cycles to construct a partisanship variable. I encode $DemControlHouse_t$ and $DemControlSenate_t$ as one if the Democrats possess a majority of House or Senate seats, respectively, and as zero otherwise. When the Senate is tied, the variable is encoded according to the affiliation of the Vice President since it falls on them to cast the tie-breaking vote.

Members of Congress that belong to the Conservative, Liberal, and American Labor parties and independent candidates are treated as being either Democrats or Republicans based on their caucus histories. Due to the limited availability of relevant information before 1950, in some cases, I determine their affiliations using self-identified left- or right-wing agendas. The

[2]For more information on how the natural rate of interest is calculated, refer to the New York Fed database.

number of such Congress members is relatively small, never exceeding three in a quarter.

In the study period, Democrats possess majority control of the House and Senate in around 66.2 percent and 63.3 percent of the quarters, respectively. Hence, there exists adequate variation to conduct econometric analyses. I test whether which party controls the House or the Senate affects the federal funds rate by estimating the following equations.

$$i_t = \beta_0 + \beta_1(Y - \bar{Y})_t + \beta_2\pi_t + \beta_3 r_t^* + \beta_4 CongElect_t + \beta_5 DemControlHouse_t + \beta_6(CongElect_t \times DemControlHouse_t) + \varepsilon_t \quad (3)$$

The partisan indicators are as defined above. All other variables are the same. The equations are first estimated for Democrat control over the House and then re-estimated for control over the Senate. A forward-looking version of Equation 3 is evaluated.

The coefficients of interest across all specifications are β_4, β_5, and β_6. β_4 estimates the impact of proximity to elections when Republicans control the House or Senate on the federal funds rate, and $\beta_4 + \beta_6$ does the same for when Democrats have control.[3] An estimated value of less than zero would suggest that the Federal Reserve practices expansionary policy in the periods before elections. β_5 assesses the differential impact of Democrats controlling the House or the Senate on the federal funds rate. An estimated value of less than zero would indicate that the Democrat control of the House (or Senate) usually results in pressure for looser monetary policy than Republican control of the same body does. Accordingly, β_6 estimates the differential impact of the Democrats having control of the House or Senate in the run-up to an election on the federal funds rate. Per the political monetary hypothesis, a negative value of β_6 would suggest that the Democrats exert greater pressure for expansionary policy on the Fed in the two quarters before an election than the Republicans.

[3]Since all Independents are coded as either Democrat or Republican based on their voting histories, one of the two parties must have control over the majority of House and Senate seats at any given time.

Next, I turn to investigate shared allegiance political monetary cycles. Construction of the party allegiance dummy variables follows the method Abrams and Iossifov (2006) outline. The allegiance of the President that initially appointed the Fed Chair is used to proxy for the Chair's alliance. In line with the literature, the Chair's loyalty remains constant through reappointments.

I encode $HouseFedChair_t$ as one for all quarters in which the Fed Chair shares party allegiance with most of the House. Next, I repeat the same process for the Senate to encode $SenateFedChair_t$. $CongressFedChair_t$ indicates the quarters where the majority of both bodies of Congress share party affiliation with the Fed Chair.

The Fed Chair is appointed by a President who belongs to the party with a majority of seats in the House and Senate during around 58.5 percent and 44.8 percent of the quarters, respectively. Hence, the data allows for adequate variation to estimate the impacts of political pressures in such scenarios empirically. Using this data, I augment the Fed's monetary reaction functions to control for periods where the Federal Reserve Chair shares party affiliation with the majority of the House, Senate, and Congress.

$$i_t = \beta_0 + \beta_1(Y - \bar{Y})_t + \beta_2\pi_t + \beta_3 r_t^* + \beta_4 CongElect_t + \beta_5 HouseFedChair_t + \beta_6(CongElect_t \times HouseFedChair_t) + \varepsilon_t \quad (4)$$

The shared allegiance indicators are as defined above. All other variables are the same. Equation 4 estimates the differential impact of the Fed Chair sharing political allegiance with the party with majority control over the House. It is then re-estimated for control over the Senate and Congress, respectively. A forward-looking version of Equation 4 is estimated.

The coefficients of interest are β_4, β_5, and β_6. β_4 estimates the impact of proximity to Congressional elections on the federal funds rate during periods when the House (or the Senate or Congress) and the Fed Chair do not share political allegiance. β_5 estimates the effect of

the House (or the Senate or Congress) and the Fed Chair sharing political allegiance during non-election periods on the nominal interest rate. Accordingly, β_6 represents the differential impact of the House (or the Senate or Congress) and the Fed Chair sharing political allegiance during election periods on the federal funds rate.

4 Results

4.1 Political Monetary Cycles

The results obtained from estimating Equations 1 and 2 are reported in Table 1. They suggest that Congressional elections have a slightly inflationary impact on monetary policy. However, this effect is muted, with the specification suggesting a decrease in the federal funds rates of 1.43 basis points at most. The estimates also indicate that the differential impact of a Presidential election on the federal funds rate is negative. However, all estimates are indistinguishable from zero at conventional levels of hypothesis testing. This result is expected since previous literature (notably Abrams and Iossifov, 2006) suggests that a simple equation that tests the PMC without controlling for partisanship is unlikely to provide conclusive evidence. This argument follows from the intuition that the Federal Reserve may be less responsive to pressures exerted by a Congress at ideological odds with it. Hence, I place greater importance on the results obtained from the other specifications.

Table 1: Estimates with electoral cycle indicators.

	(1)	(2)	(3)	(4)
OutputGap	-0.0786	-0.0769		
	(0.170)	(0.169)		
Inflation	0.857***	0.857***		
	(0.113)	(0.114)		
ExpOutputGap			-0.192***	-0.192***
			(0.0739)	(0.0741)
ExpInflation			0.850***	0.850***
			(0.0553)	(0.0553)
RStar	0.908***	0.906***	0.979***	0.979***
	(0.245)	(0.245)	(0.135)	(0.135)
CongElect	-0.0143	0.127	0.0906	0.178
	(0.315)	(0.420)	(0.321)	(0.420)
PresElect		-0.294		-0.181
		(0.634)		(0.560)
Constant	-0.798	-0.793	-1.098***	-1.098***
	(0.702)	(0.701)	(0.413)	(0.413)
N	237	237	236	236

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first two columns present results from estimating backward-looking Taylor rules with Newey-West estimators, and the rest correspond to the forward-looking Taylor rules.

4.2 Partisan Political Monetary Cycles

Table 2 presents the results from estimating various Taylor rules augmented with indicators for elections and Democrat-controlled Congressional houses (Equation 3). Except for the coefficient on the output gap, estimates from forward- and backward-looking Taylor rules are similar. Across all specifications, inflation results in tighter monetary policy, and the actual federal funds rate moves closely with the natural interest rate.

Estimates suggest that Democrat control of the House results in tighter monetary policy, with the federal funds rate higher by 0.475-0.631 points in non-election periods and 0.480-0.496 points in election periods. On the other hand, the Democrats having a majority in the Senate is highly correlated with looser monetary policy, with the federal funds rate being lower by at least 2 points in election and non-election periods. The comparison group is when Republicans are in control. However, it is worth noting that the estimates about Democrat control of the House are not significant at any conventional levels. In contrast, the estimates regarding the Senate are significant at the 0.1 percent level. This suggests that the Fed is more susceptible to pressures exerted by the upper house of Congress. The results from my preferred specification, presented in Table 4, concur.

Further, I observe that the estimates of the coefficients on the natural interest rate are near one across all four specifications. This allows us to interpret the coefficients on other variables as their driving power on the parts of the changes in the nominal interest rate that are not driven by macroeconomic conditions. As such, the natural interest rate measure controls for the possibility that the prevalence of specific electoral trends is covariant with the economic situation. Hence, the estimates provide evidence that the relatively inflationary policy that is coincident with the Democrats possessing a majority of seats in the Senate is unlikely to be explained by the underlying macroeconomic environment, thereby suggesting that policymakers and politicians belonging to the Democrat party are likely to have a greater

tolerance for inflation than their Republican counterparts.

Overall, the results in Table 2 suggest that the Fed is more likely to pursue expansionary policy when Democrats exert greater influence on decisions made in the legislative branch. This finding concurs with previous empirical evidence that suggests "pressure is more likely to come from governments with left-wing... executives" (Binder, 2021b, p. 715). Hibbs (1977) and Havrilesky (1987) draw similar conclusions.

Table 3 presents the results from estimating various Taylor rules augmented with indicators for elections and shared allegiance between Congress and the Fed Chair (Equation 4). From these results, the Federal Reserve's response to the output gap seems more forward-looking, given that coefficients on the quarter-ahead expected output gap are greater in magnitude and statistically significant in the forward-looking Taylor rules. The estimates from various equations agree in nearly all other aspects. Notably, the coefficients on inflation and the natural interest rate are both near one and statistically significant.

Estimates in Table 3 provide limited evidence of the Fed creating a political monetary cycle. However, the positive and statistically significant result, which implies that the federal funds rate is higher by around 0.85 points when the Fed Chair and the majority of the House share party allegiance, is interesting. While this finding is not robust to alternate measures of inflation (see Tables A3 and A5 in the appendix), I provide two potential reasons as to why this might be the case. The first revolves around the idea that economists, such as those on the Federal Open Market Committee, tend to favor tighter monetary policy than politicians (Ito, 2010; Ehrmann and Fratzscher, 2011). While the Senate is responsible for confirming the members that sit on the FOMC, it is the House that they periodically testify to.[4] Specifically,

[4]In addition to the Semiannual Monetary Policy Report to Congress the Fed is required to provide, various members of the Federal Open Market Committee meet with and testify to Congress over the year. For example, in 2022, there were two additional meetings regarding the state of the economy and two nomination hearings. The Senate was present for only one of the four meetings that did not discuss nominations. For more information, look at the testimonies of Federal Reserve officials.

the House Committee on Financial Services oversees the Fed. As such, if the Fed Chair sharing allegiance with the majority of the House reduces the amount or rigor of questioning, it will likely allow the FOMC to pursue the tighter policy it prefers. The second argument is based on the idea that proportional representation makes the House the electoral body most likely to represent the general polity's will. If the Fed feels like it has the people's will, it may be more able to enact tighter policy.

Finally, the estimates reported in Table 3 suggest that the Fed Chair sharing affiliation with the Senate has a minor impact on policy. Despite the relevant estimates being negative and economically significant, they are statistically indistinguishable from zero. While this is a surprising result, in the next section, I discuss how this is an artifact of the encoding procedure. Additionally, the following section provides additional robustness to the claim that the Fed does not create a political monetary cycle around Congressional elections.

Table 2: Estimates with electoral cycle and political partisanship indicators.

	(1) House	(2) Senate	(3) House	(4) Senate
OutputGap	-0.0536	-0.109		
	(0.171)	(0.132)		
Inflation	0.840***	0.890***		
	(0.114)	(0.0927)		
ExpOutputGap			-0.169**	-0.230***
			(0.0768)	(0.0627)
ExpInflation			0.839***	0.886***
			(0.0562)	(0.0472)
RStar	0.796***	1.182***	0.888***	1.270***
	(0.263)	(0.223)	(0.157)	(0.118)
CongElect	0.229	-0.0369	0.261	-0.0809
	(0.462)	(0.519)	(0.546)	(0.452)
DemControl	0.631	-2.343***	0.475	-2.550***
	(0.541)	(0.563)	(0.403)	(0.294)
CongElect × DemControl	-0.364	0.0660	-0.256	0.293
	(0.653)	(0.609)	(0.675)	(0.567)
Constant	-0.821	-0.236	-1.099**	-0.462
	(0.730)	(0.625)	(0.432)	(0.364)
N	237	237	236	236

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first two columns present results from estimating backward-looking Taylor rules with Newey-West estimators, and the rest correspond to the forward-looking Taylor rules.

Table 3: Estimates with election cycle and shared political allegiance indicators.

	(1) House	(2) Senate	(3) Congress	(4) House	(5) Senate	(6) Congress
OutputGap	-0.0885	-0.0253	-0.0314			
	(0.160)	(0.179)	(0.176)			
Inflation	0.880***	0.843***	0.840***			
	(0.110)	(0.108)	(0.107)			
ExpOutputGap				-0.207***	-0.147*	-0.147*
				(0.0726)	(0.0841)	(0.0827)
ExpInflation				0.874***	0.842***	0.839***
				(0.0547)	(0.0554)	(0.0555)
RStar	0.812***	0.926***	0.969***	0.881***	0.995***	1.029***
	(0.254)	(0.235)	(0.239)	(0.137)	(0.136)	(0.138)
CongElect	-0.284	-0.0653	-0.132	-0.164	-0.0551	-0.0774
	(0.400)	(0.502)	(0.475)	(0.488)	(0.436)	(0.423)
FedChair	0.775	-0.590	-0.672	0.845**	-0.527	-0.625
	(0.592)	(0.485)	(0.530)	(0.329)	(0.367)	(0.382)
CongElect × FedChair	0.435	0.160	0.345	0.413	0.373	0.466
	(0.617)	(0.623)	(0.624)	(0.640)	(0.647)	. (0.653)
Constant	-1.072	-0.494	-0.603	-1.415***	-0.847*	-0.913**
	(0.703)	(0.749)	(0.701)	(0.423)	(0.453)	(0.429)
N	237	237	237	236	236	236

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first three columns present results from estimating backward-looking Taylor rules with Newey-West estimators, and the rest correspond to the forward-looking Taylor rules.

4.3 Excluding the Nixon-Burns Era

There is considerable evidence detailing how President Richard Nixon badgered Fed Chair Arthur Burns for looser monetary policy to bolster his hopes for winning re-election in the 1972 Presidential elections (Abrams, 2006). Before Burns's swearing-in as Fed Chair in 1970, Nixon mocked "the myth of the autonomous Fed" in front of him (Abrams, 2006, p. 185). During a conversation in December 1971, the Director of the Office of Management and Budget, George Schultz, applauded Nixon for reminding Burns "about the procedures for appointment [to the Federal Open Market Committee] so that he sees he doesn't have complete control" (Abrams, 2006, p. 182). Further, William Safire, a speechwriter for Nixon, "recounts how the Nixon administration kept up a steady stream of anonymous leaks to pressure Burns" (Abrams, 2006, p. 185). In the end, while the various intimidation tactics practiced by the Nixon administration, combined with Burns's loyalty to the Republican party, likely contributed to Nixon being re-elected, they also marked the beginning of a spell of high inflation and macroeconomic instability that would only be resolved over a decade later.

Given the well-documented evidence of monetary policy not being independently set in the early 1970s, it is important to reconsider how this data influences the previously reported estimates. The period of concern began with Arthur Burns's Fed Chairmanship in January 1970 and ended with Nixon winning re-election in November 1972. During this period, Democrats had a majority in the House and the Senate. Given that Nixon, a Republican president, appointed Burns, my encoding procedure would indicate that neither body of Congress shared partisan affiliation with the Fed Chair during these years. The estimates reported in the seventh and eighth columns of Table 3 are based on observations from these years being counted in the comparison group. However, since the federal funds rate was decreased for reasons unrelated to the economy, this results in an upward bias. As such, I repeat the above estimation procedure after excluding observations from 1970:1 until 1973:1.

Table A1 of the appendix reports the results from repeating the estimation procedure on Taylor rules augmented with electoral cycle and partisanship indicators after excluding observations from the Nixon-Burns era. The findings concur with those reported in Table 2. In line with expectations of more precise estimates, the results from the models that track the impact of shared allegiance between the Chair and various bodies of Congress (Equation 4) gain significance. As seen in Table 4, the estimates reported in row 7 tend to increase in magnitude and achieve significance. The results suggest that the Fed Chair sharing allegiance with the House results in tighter policy by 0.68 to 0.83 percentage points, and sharing allegiance with the Senate results in looser policy by around 0.75 percentage points. When the Fed Chair shares allegiance with both bodies of Congress, the Fed is seen to pursue looser policy by about 0.89 percentage points. All results are statistically significant at the 10 percent level or greater, with some additionally significant at the 5 percent level. This evidence verifies that the Senate exerts more significant influence on monetary policy than the House. These results are partially robust to alternative measures of inflation (see Tables A11 and A12). It is further worth noting that these results are not driven by left-wing control since Democrats have a majority in the Senate, only around 53.7 percent of 108 shared allegiance quarters.

However, despite excluding data from the Nixon-Burns era, the estimates of coefficients on the interaction term between elections and shared allegiance are slightly positive and insignificant. This provides further evidence that Federal Reserve policy does not follow a political monetary cycle around elections where it shares an affiliation with Congress the way Abrams and Iossifov (2006) find with Presidential elections where it shares allegiance to the party of the President.

Table 4: Estimation with election cycle and shared political allegiance indicators after excluding observations from the Nixon-Burns era.

	(1) House	(2) Senate	(3) Congress	(4) House	(5) Senate	(6) Congress
OutputGap	-0.0993	-0.0169	-0.0229			
	(0.0705)	(0.0787)	(0.0775)			
Inflation	0.877***	0.837***	0.834***			
	(0.0539)	(0.0543)	(0.0544)			
ExpOutputGap				-0.225***	-0.133	-0.130
				(0.0772)	(0.0926)	(0.0908)
ExpInflation				0.869***	0.837***	0.833***
				(0.0565)	(0.0569)	(0.0569)
RStar	0.845***	0.982***	1.043***	0.901***	1.039***	1.091***
	(0.141)	(0.136)	(0.141)	(0.144)	(0.141)	(0.143)
CongElect	-0.373	-0.0380	-0.114	-0.226	-0.0316	-0.0570
	(0.543)	(0.469)	(0.452)	(0.548)	(0.477)	(0.460)
FedChair	0.689*	-0.776**	-0.897**	0.832**	-0.720*	-0.861**
	(0.353)	(0.376)	(0.397)	(0.360)	(0.402)	(0.420)
CongElect × FedChair	0.531	0.147	0.351	0.484	0.374	0.478
	(0.689)	(0.673)	(0.677)	(0.694)	(0.683)	(0.686)
Constant	-1.084**	-0.471	-0.612	-1.463***	-0.801*	-0.893**
	(0.432)	(0.454)	(0.430)	(0.442)	(0.477)	(0.448)
N	225	225	225	221	221	221

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first three columns present results from estimating backward-looking Taylor rules, and the rest correspond to the forward-looking Taylor rules. Newey-West estimators cannot be used due to the irregular spacing of observations.

5 Robustness Checks

First, I address the concern that the chosen measure of inflation may drive the results obtained above. I repeat the above estimation processes using core CPI and personal consumption expenditures (PCE) data to do so. The Bureau of Labor Statistics reports core CPI. Unlike headline CPI, it does not include the prices of relatively volatile goods, such as food and energy. Accordingly, it is sometimes considered a better predictor of underlying inflation trends. I also use PCE data from the Bureau of Economic Analysis since the Fed moved from targeting CPI inflation to PCE inflation in 2000 (Bullard, 2013). The results of repeating the estimation processes corresponding to Tables 2 and 3 are reported in Tables A2 to A5 of the appendix. While the estimates across all three measures of inflation are generally identical, the PCE models and the backward-looking core CPI model find no significant evidence of additional austerity when the Chair and the majority of the House share party affiliation.

Next, I address concerns that the response lags of monetary policy may reduce the likelihood of the Fed coming under pressure to pursue expansionary policy during the quarter of the election. For example, former President Nixon, emboldened by re-election hopes, told erstwhile Fed Chair Burns, "I really don't care what you do in April [1972], but between now and April... that can hurt us..." (Abrams, 2006, 184). If this is the case, the estimates reported above will likely be upward biased. Hence, I "limit" the election cycle dummy variable to indicate the two quarters before an election quarter. For example, $LimCongElect_t$, would take one as its value during 2020:2-2020:3 in response to the November 2020 elections. $LimPresElect_t$ is encoded similarly.

Tables A6 and A7 show that repeating regressions with these new election cycle indicator variables does not change any of the abovementioned results. This is likely because the quarterly nature of the data needs to be granular enough to capture lags in the policy. Further, since expansionary monetary policy affects the stock market and often consumer sentiments

nearly immediately, Nixon's idea may no longer apply to the modern economy.

Finally, I address any concerns that my results are an artifact of using the natural rate of interest measure instead of the lagged federal funds rate—as is common in the literature. Table A8 shows that the Senate being majority Democrat is robust to re-estimating the specifications using quarter-lagged federal funds rate as an independent variable. While the magnitude of the estimated effect is considerably lower, it is still statistically distinguishable from zero. However, the estimates reported in Table A9 do not provide evidence for tighter monetary policy during periods of shared political allegiance between the Fed Chair and the House. As shown in Table A10, this result is not obtained even after excluding the Nixon-Burns era.

6 Conclusion

Government interference in central banks is a widespread phenomenon. In a sample of 118 countries, Binder (2021b) finds evidence suggesting that nearly 10 percent of central banks face some political pressure in a given year. The majority of the predating literature has focused on the influence of the executive branch. This paper expands the scope of current literature by employing the methods described by Abrams and Iossifov (2006) to empirically investigate how the Federal Reserve may be susceptible to pressures exerted by the legislative branch while making monetary policy decisions. In addition, using the relatively new natural interest rate measure (Holston, Laubach, and Williams, 2017) allows for more precise estimates of the effects of proximity to Congressional elections, partisanship, and political allegiance.

I provide robust evidence that the federal funds rate has been influenced by the partisan breakdown of the Senate for most of the United States' recent history. As such, the Fed is susceptible to pressures exerted by the upper house of Congress. Future work could identify the channels through which the Senate sways monetary policy decision-making. For example, one hypothesized channel is the Senate's role in the confirmation process of seven of the twelve

Federal Open Market Committee economists.

Along the same vein, left-leaning politicians seem to have, on average, a relatively higher tolerance for inflation since monetary policy is looser when they are in power. For example, the federal funds rate is around 2.35 points lower in quarters where the Democrats have a majority in the Senate. The result I find is considerably greater in magnitude than suggested by previous work[5] and robust to various checks. To address the critique that the result is driven by the majority of the Senate belonging to the Democrat party in the 1970s—a period riddled with high inflation under the Chairmanships of Burns and Miller—I re-estimate the relevant specifications excluding observations from this decade and find similar results (see Table A13).

It is also worth noting a theoretical assumption that underpins my estimation procedure. The current functional form for my regression equations assumes that the political variables shift interest rates holding macroeconomic factors constant. However, political elements may result in the Federal Reserve being more or less sensitive to inflation or the output gap, thereby changing its slope rather than its intercept. I make this simplification based on the theoretical work of Riboni and Ruge-Murcia (2010). However, future work could consider interacting the coefficients on macroeconomic variables with those on the political variables.

Another shortcoming of this methodology is that the political affiliation variables take self-reported allegiance at face value. For example, the Democrat senator of West Virginia, Joe Manchin, who is more often aligned with Republican legislation than any other Democrat Senator (Bolton, 2022), is encoded as a Democrat. I believe that such "mislabeling" issues likely occur randomly and equally on both sides of the aisle (with right-wing politicians counting as Democrats and left-wing politicians counting as Republicans). If this is the case, they would reduce the precision of my estimates but should not introduce bias in either

[5] Abrams and Iossifov (2006) find an estimate of -0.38 points for Democrat presidents.

direction. In recent history, this phenomenon is seen to have occurred more with conservative politicians running campaigns as Democrats in historically Republican states. If this is, in fact, true for much of my study period, the evidence that suggests greater Democrat tolerance of high inflation likely underestimates its true nature.

I find compelling evidence that the Federal Reserve does not create a political monetary cycle around Congressional elections. While this agrees with prior work on the influence of the legislative branch in the United States (Allen and McCrickard, 1991), it is at odds with the evidence that Abrams and Iossifov (2006) find for the existence of a PMC around election periods during which the Fed Chair and the President share allegiance. One reason is that the Senate's sway over the FOMC may be small enough that it does not influence the Chair's decisions but large enough that it affects the other six members that it confirms' policy suggestions. While testing this hypothesis could yield interesting results, a natural extension involving measuring the impacts of the political allegiance that other FOMC members may hold would have inherent merit. A good starting point would be using the various decision-making models discussed by Riboni and Ruge-Murcia (2010). Further analysis would require access to FOMC members' political affiliation data, which do not exist publicly.

This paper has primarily aimed to highlight the importance of studying the nature of pressure that the Federal Reserve comes under from the legislative branch. While the empirical results provided are interesting in their own right, I hope to prompt further research into the mechanisms through which Congress has influenced Federal Reserve policy in the past and may seek to do so in the future.

References

1. Abrams, B. A. (1980). The influence of state-level economic conditions on presidential elections. *Public Choice*, 35, 623–631.

2. Abrams, B.A. (2006). How Richard Nixon Pressured Arthur Burns: Evidence from the Nixon Tapes. *Journal of Economic Perspectives*, 20(4), 177–188.

3. Abrams, B. A. and Iossifov, P. (2006). Does the Fed Contribute to a Political Business Cycle? *Public Choice*, 129, 249–262.

4. Alesina, A., Roubini, N., and Cohen, G. (1997). Political Cycles and the Macroeconomy. *The MIT Press.*

5. Alesina, A. and Summers, L. H. (1993). Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence. *Journal of Money, Credit, and Banking*, 25(2), 151–162.

6. Allen, S. D. and McCrickard, D. L. (1991). The influence of elections on federal reserve behavior. *Economic Letters*, 37(1), 51–55.

7. Beck, N. (1987). Elections and the Fed: Is there a political business cycle. *American Journal of Political Science*, 31(1), 194–216.

8. Belden, S. (1989). Policy Preferences of FOMC Members as Revealed by Dissenting Votes. *Journal of Money, Credit and Banking*, 21(4), 432–441.

9. Bernanke, B. S. (2010). Central Bank Independence, Transparency, and Accountability. Speech at The Institute for Monetary and Economic Studies International Conference, Bank of Japan.

10. Bernanke, B. S. (2016). "Audit the Fed" is not about auditing the Fed. *Brookings Institution.*

11. Binder, C. C. (2015). Rewriting the Rules of the Federal Reserve for Broad and Stable Growth. *Roosevelt Institute*, report. Accessed on May 3, 2022.

12. Binder, C. C. (2021a). Presidential antagonism and central bank credibility. *Economics & Politics*, 33(2), 244–263.

13. Binder, C. C. (2021b). Political pressure on central banks. *Journal of Money, Credit and Banking*, 53(4), 715–744.

14. Blinder, A. S. (1997). Is Government Too Political? *Foreign Affairs*, 76(6), 115–126.

15. Board of Governors of the Federal Reserve System (US), Federal Funds Effective Rate [DFF], retrieved from FRED, Federal Reserve Bank of St. Louis; `https://fred.stlouisfed.org/series/DFF`, March 31, 2023.

16. Bolton, A. (2022). Republicans eye Manchin as top target in 2024. *The Hill*, Energy and Environment, November 14, 2022.

17. Bordo, M. D. and Siklos, P. L. (2015). Central Bank Credibility: An Historical and Quantitative Exploration. *National Bureau of Economic Research*, Working Paper 20824.

18. Bullard, J. (2013). CPI Vs. PCE Inflation: Choosing a Standard Measure. The Federal Reserve Bank of St. Louis. Accessed April 3, 2023.

19. Carlstrom, C. T., and Fuerst, T. S. (2016). The Natural Rate of Interest in Taylor Rules. Economic Letters, Federal Reserve Bank of Cleveland. Accessed April 8, 2023.

20. Chappell, W. H., Havrilesky, T. M., and McGregor, R. R. (1997). Monetary Policy Preferences of Individual FOMC Members: A Content Analysis of the Memoranda of Discussion. *Review of Economics and Statistics*, 79(3), 454–460.

21. Clarida, R., Gali, J., and Gertler, M. (2000). Monetary Policy Rules and Macroeconomic Stability: Evidence and Some Theory. *The Quarterly Journal of Economics*, 115(1), 147–180.

22. Ehrmann, M., and Fratzscher, M. (2011). Politics and Monetary Policy. *The Review of Economics and Statistics*, 93(3), 941–960.

23. Federal Reserve Bank of New York, Measuring the Natural Rate of Interest; `https://www.newyorkfed.org/research/policy/rstar`, March 31, 2023.

24. Friedman, M. (1962). Should there be an independent monetary authority? In search of a monetary constitution, 219–243.

25. Friedman, M. (1968). The Role of Monetary Policy. *American Economic Review*, 58(1), 1–17.

26. Goodfriend, M. (2007). How the World Achieved Consensus on the Monetary Policy. *The Journal of Economic Perspectives*, 21(4), 47–68.

27. Gordon, R. J. (2018). Friedman and Phelps on the Phillips curve viewed from Half a Century's Perspective. *National Bureau of Economic Research*, Working Paper 24891.

28. Grier, K. (1984). The Political Economy of Monetary Policy. Ph.D. dissertation, *Washington University*.

29. Hall, T. E. and Hart, W. R. (2010). The Samuelson-Solow "Phillips curve" and the Great Inflation. *Farmer School of Business*, Working Paper 2010-08.

30. Havrilesky, T. (1987). A Partisanship Theory of Fiscal and Monetary Regimes. *Journal of Money, Credit and Banking*, 19(3), 308–325.

31. Hibbs, D. A. (1977). Political Parties and Macroeconomic Policy. *American Political Science Review*, 71(4), 1467–1487.

32. Holston, K., Laubach, T., and Williams, J.C. (2017). Measuring the Natural Rate of Interest: International Trends and Determinants. *Journal of International Economics*, 108(1), S59–S75.

33. Ito, T. (2010). Great Inflation and Central Bank Independence in Japan. *National Bureau of Economic Research*, Working Paper 15726.

34. Leertouwer, E. and Maier, P. (2001). Who Creates Political Business Cycles: Should Central Banks be Blamed? *European Journal of Political Economy*, 17(3), 445–463.

35. Mordfin, R. I. (2013). What Economists Think about 'Audit the Fed.' *Chicago Booth Review*.

36. Nordhaus, W. (1975). The Political Business Cycle. *Review of Economic Studies*, 42(2), 169–190.

37. Owens, J. E. (1985). Extreme Advocacy Leadership in the Pre-Reform House: Wright Patman and the House Banking and Currency Committee. *British Journal of Political Science*, 15(2), 187–206.

38. Paul, R. (2021). Dr. Rand Paul Reintroduces "Audit the Fed" 2021. *Dr. Rand Paul, US Senator for Kentucky*, Press Release, March 3, 2021.

39. Phelps, E. S. (1967). Phillips Curves, Expectations of Inflation and Optimal Unemployment over Time. *Economica*, 34(135), 254–281.

40. Phillips, A. W. (1958). The relation between unemployment and the rate of change of money wage rates in the United Kingdom, 1861-1957. *Economica*, 25(100), 283–299.

41. Riboni, A., and Ruge-Murcia, F. J. (2010). Monetary Policy by Committee: Consensus, Chairman Dominance, or Simple Majority? *The Quarterly Journal of Economics*, 125(1), 363–416.

42. Rogoff, K. (1985). The Optimal Degree of Commitment to an Intermediate Monetary Target. *The Quarterly Journal of Economics*, 100(4), 1169–1189.

43. Romer, C. D. and Romer, D. H. (2002). A Rehabilitation of Monetary Policy in the 1950's. *American Economic Review*, 92(2), 121–127.

44. Staiger, D., and Stock, J.H. (1997). Instrumental Variables Regression with Weak Instruments. *Econometrica*, 65(3), 557–586.

45. Stigler, G. J. (1973). General economic conditions and national elections. *American Economic Review*, 63(2), 160–167.

46. Taylor, J. (1993). Discretion versus policy rules in practice. *Carnegie Rochester Conference Series on Public Policy*, 39, 195–214.

47. Todd, T. (2012). The Balance of Power: The Political Fight for an Independent Central Bank, 1790-present. *Public Affairs Department of the Federal Reserve Bank of Kansas City.*

48. Wicker, E. R. (1965). Federal Reserve monetary policy, 1922-33: a reinterpretation. *Journal of Political Economy*, 73(4), 325–343.

49. U.S. Bureau of Economic Analysis, Personal Consumption Expenditure [PCE], retrieved from FRED, Federal Reserve Bank of St. Louis; `https://fred.stlouisfed.org/series/PCE`, April 3, 2023.

50. U.S. Bureau of Economic Analysis, Real Gross Domestic Product [GDPC1], retrieved from FRED, Federal Reserve Bank of St. Louis; `https://fred.stlouisfed.org/series/GDPC1`, March 31, 2023.

51. U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL], retrieved from FRED, Federal Reserve Bank of St. Louis; `https://fred.stlouisfed.org/series/CPIAUCSL`, March 31, 2023.

52. U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items Less Food and Energy in U.S. City Average [CPILFESL], retrieved from FRED, Federal Reserve Bank of St. Louis; `https://fred.stlouisfed.org/series/CPILFESL`, April 3, 2023.

53. U.S. Congressional Budget Office, Real Potential Gross Domestic Product [GDPPOT], retrieved from FRED, Federal Reserve Bank of St. Louis; `https://fred.stlouisfed.org/series/GDPPOT`, March 31, 2023.

Appendix

Table A1: Estimation with electoral cycle and political partisanship indicators after excluding observations from the Nixon-Burns era.

	(1) House	(2) Senate	(3) House	(4) Senate
OutputGap	-0.0618	-0.120*		
	(0.0736)	(0.0620)		
Inflation	0.837***	0.889***		
	(0.0551)	(0.0472)		
ExpOutputGap			-0.176**	-0.250***
			(0.0817)	(0.0662)
ExpInflation			0.835***	0.881***
			(0.0579)	(0.0485)
RStar	0.828***	1.204***	0.916***	1.291***
	(0.156)	(0.122)	(0.164)	(0.123)
CongElect	0.232	-0.0395	0.263	-0.0858
	(0.556)	(0.470)	(0.559)	(0.462)
DemControl	0.679*	-2.321***	0.508	-2.573***
	(0.407)	(0.308)	(0.417)	(0.304)
CongElect × DemControl	-0.369	0.0465	-0.243	0.316
	(0.699)	(0.603)	(0.705)	(0.591)
Constant	-0.883**	-0.296	-1.147**	-0.519
	(0.437)	(0.378)	(0.448)	(0.376)
N	225	225	221	221

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first two columns present results from estimating backward-looking Taylor rules, and the rest correspond to the forward-looking Taylor rules. Newey-West estimators cannot be used due to the irregular spacing of observations.

Table A2: Estimates with electoral cycle and political partisanship indicators using PCE inflation.

	(1) House	(2) Senate	(3) House	(4) Senate
OutputGap	-0.310*	-0.380**		
	(0.169)	(0.154)		
PCEInflation	0.775***	0.772***		
	(0.160)	(0.160)		
ExpOutputGap			-0.323***	-0.396***
			(0.0920)	(0.0833)
ExpPCEInflation			0.814***	0.804***
			(0.0804)	(0.0758)
RStar	0.629**	1.033***	0.589***	1.000***
	(0.284)	(0.303)	(0.198)	(0.177)
CongElect	0.170	-0.0545	0.264	-0.206
	(0.483)	(0.609)	(0.657)	(0.612)
DemControl	0.980*	-1.478**	0.878*	-1.675***
	(0.572)	(0.738)	(0.483)	(0.399)
CongElect × DemControl	-0.510	-0.151	-0.406	0.327
	(0.749)	(0.829)	(0.811)	(0.768)
Constant	-2.767***	-2.350***	-2.895***	-2.393***
	(0.940)	(0.889)	(0.586)	(0.559)
N	237	237	236	236

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first two columns present results from estimating backward-looking Taylor rules with Newey-West estimators, and the rest correspond to the forward-looking Taylor rules.

Table A3: Estimates with election cycle and shared political allegiance indicators using PCE inflation.

	(1) House	(2) Senate	(3) Congress	(4) House	(5) Senate	(6) Congress
OutputGap	-0.369**	-0.315*	-0.317*			
	(0.165)	(0.189)	(0.186)			
PCEInflation	0.808***	0.784***	0.779***			
	(0.161)	(0.164)	(0.164)			
ExpOutputGap				-0.383***	-0.327***	-0.331***
				(0.0874)	(0.102)	(0.0997)
ExpPCEInflation				0.851***	0.822***	0.818***
				(0.0791)	(0.0806)	(0.0806)
RStar	0.757***	0.825***	0.867***	0.691***	0.778***	0.815***
	(0.281)	(0.266)	(0.270)	(0.180)	(0.178)	(0.181)
CongElect	-0.466	-0.196	-0.356	-0.259	-0.186	-0.316
	(0.574)	(0.570)	(0.552)	(0.599)	(0.527)	(0.510)
FedChair	0.358	-0.419	-0.590	0.472	-0.507	-0.636
	(0.702)	(0.663)	(0.719)	(0.400)	(0.449)	(0.468)
CongElect × FedChair	0.478	0.0855	0.491	0.409	0.438	0.786
	(0.766)	(0.831)	(0.853)	(0.784)	(0.781)	(0.787)
Constant	-2.945***	-2.542**	-2.580***	-3.167***	-2.677***	-2.728***
	(0.981)	(1.035)	(0.975)	(0.583)	(0.626)	(0.594)
N	237	237	237	236	236	236

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first three columns present results from estimating backward-looking Taylor rules with Newey-West estimators, and the rest correspond to the forward-looking Taylor rules.

Table A4: Estimates with electoral cycle and political partisanship indicators using core CPI inflation.

	(1) House	(2) Senate	(3) House	(4) Senate
OutputGap	0.127	0.0961		
	(0.165)	(0.129)		
CoreCPIInflation	1.028***	1.045***		
	(0.128)	(0.101)		
F.OutputGap			0.0605	0.0195
			(0.0738)	(0.0618)
F.CoreCPIInflation			1.034***	1.054***
			(0.0605)	(0.0506)
RStar	0.682***	0.955***	0.685***	0.977***
	(0.215)	(0.196)	(0.149)	(0.116)
CongElect	0.0450	-0.125	0.132	-0.00177
	(0.375)	(0.434)	(0.509)	(0.426)
DemControl	0.162	-2.058***	0.180	-2.171***
	(0.473)	(0.478)	(0.378)	(0.276)
CongElect × DemControl	-0.312	-0.0291	-0.343	-0.130
	(0.569)	(0.549)	(0.629)	(0.535)
Constant	-0.678	-0.123	-0.803**	-0.231
	(0.652)	(0.591)	(0.401)	(0.342)
N	237	237	236	236

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first two columns present results from estimating backward-looking Taylor rules with Newey-West estimators, and the rest correspond to the forward-looking Taylor rules.

Table A5: Estimation with election cycle and shared political allegiance indicators using core CPI inflation.

	(1) House	(2) Senate	(3) Congress	(4) House	(5) Senate	(6) Congress
OutputGap	0.121	0.162	0.151			
	(0.155)	(0.171)	(0.168)			
CoreCPIInflation	1.057***	1.019***	1.018***			
	(0.118)	(0.119)	(0.119)			
ExpOutputGap				0.0486	0.104	0.0924
				(0.0705)	(0.0806)	(0.0793)
ExpCoreCPIInflation				1.062***	1.029***	1.027***
				(0.0578)	(0.0590)	(0.0593)
RStar	0.595***	0.714***	0.740***	0.607***	0.718***	0.746***
	(0.207)	(0.195)	(0.204)	(0.131)	(0.131)	(0.134)
CongElect	-0.275	-0.203	-0.247	-0.338	-0.147	-0.203
	(0.437)	(0.469)	(0.442)	(0.453)	(0.406)	(0.394)
FedChair	0.842	-0.441	-0.428	0.796***	-0.495	-0.491
	(0.571)	(0.459)	(0.508)	(0.304)	(0.342)	(0.358)
CongElect × FedChair	0.162	0.130	0.249	0.388	0.175	0.318
	(0.593)	(0.574)	(0.573)	(0.594)	(0.603)	(0.609)
Constant	-0.923	-0.404	-0.507	-1.041***	-0.506	-0.606
	(0.628)	(0.682)	(0.639)	(0.390)	(0.419)	(0.398)
N	237	237	237	236	236	236

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is the fed funds rate. The first three columns present results from estimating backward-looking Taylor rules with Newey-West estimators, and the rest correspond to the forward-looking Taylor rules.

Table A6: Estimates with "limited" electoral cycle and political partisanship indicators.

	(1) House	(2) Senate	(3) House	(4) Senate
OutputGap	-0.0516	-0.108		
	(0.170)	(0.131)		
Inflation	0.841***	0.892***		
	(0.114)	(0.0937)		
ExpOutputGap			-0.168**	-0.228***
			(0.0766)	(0.0625)
ExpInflation			0.839***	0.889***
			(0.0562)	(0.0471)
RStar	0.794***	1.176***	0.887***	1.261***
	(0.263)	(0.223)	(0.157)	(0.118)
LimCongElect	0.0678	0.323	0.108	0.410
	(0.429)	(0.597)	(0.547)	(0.459)
DemControl	0.587	-2.201***	0.460	-2.330***
	(0.518)	(0.536)	(0.402)	(0.292)
LimCongElect × DemControl	-0.184	-0.518	-0.192	-0.609
	(0.663)	(0.677)	(0.675)	(0.569)
Constant	-0.776	-0.310	-1.058**	-0.565
	(0.723)	(0.632)	(0.430)	(0.363)
N	237	237	236	236

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first two columns present results from estimating backward-looking Taylor rules with Newey-West estimators, and the rest correspond to the forward-looking Taylor rules.

Table A7: Estimates with "limited" election cycle and shared political allegiance indicators.

	(1) House	(2) Senate	(3) Congress	(4) House	(5) Senate	(6) Congress
OutputGap	-0.0860	-0.0215	-0.0265			
	(0.162)	(0.179)	(0.176)			
Inflation	0.880***	0.846***	0.844***			
	(0.110)	(0.109)	(0.109)			
ExpOutputGap				-0.205***	-0.143*	-0.143*
				(0.0724)	(0.0839)	(0.0826)
ExpInflation				0.874***	0.845***	0.842***
				(0.0547)	(0.0555)	(0.0555)
RStar	0.809***	0.915***	0.957***	0.879***	0.982***	1.018***
	(0.256)	(0.236)	(0.242)	(0.137)	(0.136)	(0.138)
LimCongElect	-0.191	0.116	0.00213	-0.216	0.0663	-0.0359
	(0.447)	(0.541)	(0.515)	(0.488)	(0.431)	(0.418)
FedChair	0.830	-0.447	-0.541	0.870***	-0.383	-0.512
	(0.591)	(0.474)	(0.516)	(0.329)	(0.368)	(0.383)
LimCongElect × FedChair	0.210	-0.413	-0.167	0.313	-0.194	0.0366
	(0.702)	(0.654)	(0.653)	(0.639)	(0.648)	(0.656)
Constant	-1.084	-0.517	-0.609	-1.397***	-0.850*	-0.901**
	(0.704)	(0.753)	(0.706)	(0.422)	(0.453)	(0.429)
N	237	237	237	236	236	236

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first three columns present results from estimating backward-looking Taylor rules with Newey-West estimators, and the rest correspond to the forward-looking Taylor rules.

Table A8: Estimates with electoral cycle and political partisanship indicators while controlling for the lagged federal funds rate.

	(1) House	(2) Senate	(3) House	(4) Senate
OutputGap	0.125***	0.129***		
	(0.0277)	(0.0269)		
Inflation	0.100**	0.113**		
	(0.0485)	(0.0496)		
ExpOutputGap			0.120***	0.124***
			(0.0233)	(0.0230)
ExpInflation			0.115***	0.132***
			(0.0282)	(0.0304)
FFR_{t-1}	0.908***	0.901***	0.909***	0.898***
	(0.0266)	(0.0261)	(0.0222)	(0.0224)
CongElect	0.0147	-0.260	0.0308	-0.251
	(0.0741)	(0.161)	(0.203)	(0.196)
DemControl	0.0625	-0.220*	0.0317	-0.270**
	(0.118)	(0.119)	(0.138)	(0.129)
CongElect × DemControl	-0.152	0.273	-0.123	0.320
	(0.182)	(0.230)	(0.249)	(0.243)
Constant	0.171	0.345***	0.119	0.306**
	(0.113)	(0.120)	(0.115)	(0.124)
N	240	240	238	238

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first two columns present results from estimating backward-looking Taylor rules with Newey-West estimators, and the rest correspond to the forward-looking Taylor rules.

Table A9: Estimates with election cycle and shared political allegiance indicators while controlling for the lagged federal funds rate.

	(1) House	(2) Senate	(3) Congress	(4) House	(5) Senate	(6) Congress
OutputGap	0.120***	0.121***	0.117***			
	(0.0294)	(0.0341)	(0.0349)			
Inflation	0.110**	0.0990**	0.0998**			
	(0.0483)	(0.0474)	(0.0473)			
ExpOutputGap				0.114***	0.117***	0.115***
				(0.0237)	(0.0274)	(0.0279)
ExpInflation				0.125***	0.114***	0.115***
				(0.0290)	(0.0282)	(0.0282)
FFR_{t-1}	0.901***	0.911***	0.911***	0.901***	0.911***	0.910***
	(0.0257)	(0.0252)	(0.0252)	(0.0220)	(0.0212)	(0.0212)
CongElect	-0.0863	-0.212	-0.189	-0.0314	-0.171	-0.148
	(0.148)	(0.157)	(0.149)	(0.184)	(0.162)	(0.157)
FedChair	0.161	-0.0226	0.0210	0.170	-0.0293	-0.000481
	(0.119)	(0.120)	(0.121)	(0.124)	(0.136)	(0.139)
CongElect × FedChair	-0.00691	0.260	0.224	-0.0384	0.250	0.213
	(0.227)	(0.246)	(0.250)	(0.238)	(0.235)	(0.237)
Constant	0.113	0.207	0.186	0.0410	0.146	0.134
	(0.151)	(0.166)	(0.158)	(0.121)	(0.124)	(0.119)
N	240	240	240	238	238	238

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first three columns present results from estimating backward-looking Taylor rules with Newey-West estimators, and the rest correspond to the forward-looking Taylor rules.

Table A10: Estimates with election cycle and shared political allegiance indicators while controlling for the lagged federal funds rate and excluding the Nixon-Burns era.

	(1) House	(2) Senate	(3) Congress	(4) House	(5) Senate	(6) Congress
OutputGap	0.116***	0.118***	0.114***			
	(0.0238)	(0.0276)	(0.0280)			
Inflation	0.109***	0.0998***	0.101***			
	(0.0298)	(0.0290)	(0.0290)			
ExpOutputGap				0.109***	0.113***	0.110***
				(0.0249)	(0.0298)	(0.0304)
ExpInflation				0.121***	0.113***	0.113***
				(0.0290)	(0.0282)	(0.0282)
FFR_{t-1}	0.906***	0.914***	0.914***	0.907***	0.914***	0.914***
	(0.0233)	(0.0225)	(0.0224)	(0.0222)	(0.0213)	(0.0213)
CongElect	-0.0477	-0.196	-0.172	0.0400	-0.134	-0.112
	(0.208)	(0.179)	(0.172)	(0.201)	(0.173)	(0.167)
FedChair	0.138	-0.0392	0.00811	0.160	-0.0349	-0.00210
	(0.133)	(0.143)	(0.145)	(0.131)	(0.145)	(0.148)
CongElect × FedChair	-0.0455	0.243	0.207	-0.112	0.210	0.174
	(0.261)	(0.252)	(0.253)	(0.251)	(0.243)	(0.243)
Constant	0.113	0.209	0.183	0.0344	0.144	0.127
	(0.129)	(0.135)	(0.129)	(0.127)	(0.132)	(0.126)
N	227	227	227	223	223	223

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first three columns present results from estimating backward-looking Taylor rules, and the rest correspond to the forward-looking Taylor rules. Newey-West estimators cannot be used due to the irregular spacing of observations.

Table A11: Estimation with election cycle and shared political allegiance indicators excluding observations after Nixon-Burns era and using PCE inflation.

	(1) House	(2) Senate	(3) Congress	(4) House	(5) Senate	(6) Congress
OutputGap	-0.360***	-0.280***	-0.282***			
	(0.0819)	(0.0921)	(0.0906)			
PCEInflation	0.830***	0.803***	0.797***			
	(0.0721)	(0.0735)	(0.0733)			
ExpOutputGap				-0.360***	-0.244**	-0.251**
				(0.0915)	(0.110)	(0.107)
ExpPCEInflation				0.881***	0.850***	0.844***
				(0.0822)	(0.0827)	(0.0825)
RStar	0.769***	0.838***	0.903***	0.686***	0.768***	0.840***
	(0.174)	(0.170)	(0.176)	(0.187)	(0.183)	(0.187)
CongElect	-0.472	-0.111	-0.296	-0.210	-0.0650	-0.221
	(0.637)	(0.545)	(0.525)	(0.663)	(0.569)	(0.547)
house_fedchair	0.169	-0.663	-0.875*	0.229	-0.947**	-1.125**
	(0.411)	(0.441)	(0.464)	(0.431)	(0.481)	(0.503)
housechairelection	0.480	-0.0116	0.428	0.378	0.347	0.732
	(0.808)	(0.784)	(0.787)	(0.840)	(0.814)	(0.816)
Constant	-2.935***	-2.475***	-2.558***	-3.122***	-2.471***	-2.597***
	(0.560)	(0.596)	(0.563)	(0.593)	(0.637)	(0.601)
N	225	225	225	221	221	221

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first three columns present results from estimating backward-looking Taylor rules, and the rest correspond to the forward-looking Taylor rules. Newey-West estimators cannot be used due to the irregular spacing of observations.

Table A12: Estimation with election cycle and shared political allegiance indicators excluding observations after Nixon-Burns era and using core CPI inflation.

	(1) House	(2) Senate	(3) Congress	(4) House	(5) Senate	(6) Congress
OutputGap	0.109	0.170**	0.159**			
	(0.0678)	(0.0745)	(0.0736)			
CoreCPIInflation	1.059***	1.020***	1.018***			
	(0.0570)	(0.0577)	(0.0581)			
ExpOutputGap				0.00915	0.0917	0.0790
				(0.0734)	(0.0870)	(0.0854)
ExpCoreCPIInflation				1.064***	1.029***	1.027***
				(0.0588)	(0.0599)	(0.0602)
RStar	0.643***	0.776***	0.820***	0.638***	0.771***	0.809***
	(0.134)	(0.130)	(0.135)	(0.136)	(0.134)	(0.138)
CongElect	-0.318	-0.164	-0.218	-0.333	-0.0715	-0.143
	(0.502)	(0.435)	(0.420)	(0.502)	(0.440)	(0.425)
FedChair	0.714**	-0.645*	-0.671*	0.823**	-0.598	-0.617
	(0.326)	(0.349)	(0.370)	(0.329)	(0.371)	(0.390)
CongElect × FedChair	0.213	0.104	0.243	0.395	0.123	0.288
	(0.638)	(0.624)	(0.629)	(0.635)	(0.631)	(0.635)
Constant	-0.961**	-0.406	-0.545	-1.192***	-0.582	-0.700*
	(0.399)	(0.420)	(0.398)	(0.403)	(0.439)	(0.413)
N	225	225	225	221	221	221

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first three columns present results from estimating backward-looking Taylor rules, and the rest correspond to the forward-looking Taylor rules. Newey-West estimators cannot be used due to the irregular spacing of observations.

Table A13: Estimation with electoral cycle and political partisanship indicators after excluding observations from the 1970s.

	(1) House	(2) Senate	(3) House	(4) Senate
OutputGap	-0.143*	-0.226***		
	(0.0757)	(0.0635)		
Inflation	1.079***	1.058***		
	(0.0654)	(0.0572)		
ExpOutputGap			-0.245***	-0.320***
			(0.0812)	(0.0664)
ExpInflation			1.320***	1.244***
			(0.0853)	(0.0746)
RStar	0.889***	1.265***	0.906***	1.260***
	(0.150)	(0.117)	(0.158)	(0.121)
CongElect	0.255	0.00272	0.277	0.0220
	(0.514)	(0.436)	(0.508)	(0.428)
DemControl	0.728*	-2.041***	0.529	-2.070***
	(0.386)	(0.299)	(0.389)	(0.297)
CongElect × DemControl	-0.572	-0.0905	-0.502	0.00354
	(0.672)	(0.586)	(0.667)	(0.576)
Constant	-1.637***	-1.081***	-2.300***	-1.635***
	(0.422)	(0.367)	(0.435)	(0.375)
N	197	197	193	193

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable for all regressions is the fed funds rate. The first two columns present results from estimating backward-looking Taylor rules, and the rest correspond to the forward-looking Taylor rules. Newey-West estimators cannot be used due to the irregular spacing of observations.