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Abstract

We examine the extent to which government ideology has influenced monetary policy in OECD countries since the 1970s. In line with important changes in the global economy and differences across countries, regression results yield heterogeneous inferences depending on the time period and the exchange rate regime/central bank dependence of the countries in the sample. Over the 1972-2010 period, Taylor rule specifications do not suggest a relationship between government ideology and monetary policy as measured by the short-term nominal interest rate or the rate of monetary expansion minus GDP trend growth. Monetary policy was, however, associated with government ideology in the 1990s: short-term nominal interest rates were lower under leftwing than rightwing governments when central banks depended on the directives of the government and exchange rates were flexible. Very independent central banks, however, raised interest rates when leftwing governments were in office. We describe the historical evidence for several individual countries.

JEL Code: D72, E52, E58, C23

Keywords: Government ideology, monetary policy, partisan politics, panel data

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1. Introduction

Governments do not design monetary policies directly in industrialized countries: central banks do. Governments may, however, influence monetary policies indirectly by, for example, appointing politically aligned members to the central bank council or signaling preferred policies (e.g., Havrilesky 1988, 1991; Havrilesky and Gildea 1992; Chappell et al. 1993; Chang 2001; Hayo and Hefeker 2002; Schnakenberg et al. 2017). The more the central bank depends on the directives of the government, the more clearly politicians might matter. Scholars have examined for a long time whether government ideology influences monetary policies. The hypothesis to be tested empirically is that leftwing governments implement more expansionary monetary policies, such as lower interest rates and faster monetary base growth than rightwing governments (on the partisan theories see Hibbs 1977; Chappell and Keech 1986; Alesina 1987 and Potrafke 2017, 2018 for surveys). The empirical evidence is mixed.¹

We revisit the conclusions of previous studies, especially panel data studies for OECD countries, highlighting the importance of differences across time periods and country-specific factors for inferences. First, the relationship between government ideology and monetary policy has varied greatly over time, often because of structural changes in the global economic environment. Our findings suggest that monetary policy indeed was influenced by government ideology in the 1990s. During other decades, however, government ideology does not appear to matter. Such heterogeneities often are masked in cross-country panel analyses that attempt to estimate stable relationships over several decades. Second, a great deal of heterogeneity exists across countries. Some countries, such as Greece and Germany, appear to have implemented politically motivated monetary policies. Ideology-induced monetary policies in many other countries may be masked by the fact that governments had limited opportunities to adopt discretionary policies. Rather, they often just followed a leader by, for example, pegging their exchange rates to that of an influential neighboring country (most prominently the German Deutschmark). External factors – e.g., the need to comply with the European Exchange Rate Mechanism or International Monetary Fund programs – often limited the scope for discretionary monetary policies. Third, scholars disagree about whether the short-term interest rate or money growth rates is a better measure of the expansiveness of monetary policy (Vaubel

¹ For OECD panel studies see, for example, Alesina et al. (1997), Oatley (1999), Boix (2000), Cusack (2001), Clark (2003), Sakamoto (2008), Belke and Potrafke (2012), Adolph (2013), Giesenow and de Haan (2019). For single-country studies see, for example, Grier (1991) and (1996), Vaubel (1993, 1997a b), Berger and Woitek (1997, 2005) and Ferris (2008). Other scholars have examined ideology-induced monetary policies in single-country studies of Canada, Germany and the United States.

1993; Belke and Potrafke 2012). Our results also suggest that inferences are sensitive to the dependent variable used.

A prominent research design has been estimating the long-term relationship between government ideology and interest rates in a Taylor rule framework. The baseline model uses nominal interest rates as the dependent variable and the inflation rate and output gap as explanatory variables (Taylor 1993).² The model is extended by a government ideology variable, as well as its interaction with measures of central bank independence. Using quarterly data for 23 OECD countries over the 1980.1-2005.4 period, Belke and Potrafke (2012) show that interest rates were somewhat lower under leftwing than rightwing governments when central bank independence was weak. By contrast, interest rates were higher under leftwing governments than rightwing governments when central bank independence was strong. The authors conjectured that the “findings are compatible with the view that leftist governments, in an attempt to deflect blame [from] their traditional constituencies, have pushed market-oriented policies by delegating monetary policy to conservative central bankers” (p. 1126). Giesenow and de Haan (2019) propose two innovations. First, they emphasize that central banks are forward-looking and, hence, model central bank behavior using forward-looking and real-time data. Second, they use a combination of: mean group estimators, which pin down the long-term coefficient of interest by estimating separate slope coefficients for each country, then taking the mean; and pooled-mean group estimators, which assume a common long-run coefficient, allowing short-run coefficients to vary across countries (Pesaran et al. 1999). The focus thus remains on the long-run relationship between government ideology and interest rates. In contrast with Belke and Potrafke (2012), they find that government ideology does not appear to matter. We corroborate the lack of a long-term relationship. Heterogeneities along several dimensions, however, may be hidden, which is what we investigate here.

The notion of the “impossible trinity” describes how in open economies national governments can achieve only two objectives out of the triplet of monetary independence, exchange rate stability, and free capital movements. Beckmann et al. (2017) examine how government ideology influences the choice between the three and conclude that leftwing governments seem to favor exchange rate stability over monetary independence.³ Clearly, the previous panel studies on ideology-induced monetary policies have been forced to deal with the impossible trinity to some extent. For example, Belke and Potrafke (2012) include indicators of exchange rate regimes as explanatory variables. However, doing so does not accommodate

² On determinants of inflation uncertainty see, for example, Conrad and Hartmann (2019).

³ On ideology-induced exchange rate policies, see also Berdiev et al. (2012).

the possibility that the relationship between government ideology and interest rates may be different under different exchange rate regimes. Countries such as Belgium, the Netherlands, Denmark and Austria, as small open economies with limited abilities to conduct independent monetary policies while maintaining exchange rate stability, did not have much leeway to exercise discretion once their currencies were pegged to the Deutschmark or the euro, since the countries also removed capital flow restrictions. We now examine the effect of government ideology on monetary policies conditioned on both central bank dependence and flexible exchange rates. Furthermore, during the 1990s, meeting the convergence requirements for entering the EMU became priorities for many countries which drove major monetary policy decisions and reforms to a greater extent than did domestic issues. Indeed, while Germany was relatively unconstrained – a success story on which the convergence process was to a large degree mimicked by other countries (Fernández-Albertos 2015) – some countries, such as Italy, had to implement fairly drastic measures to meet the requirements in time, something that likely would have happened for any government. Although the average effect of government ideology may be close to zero, potentially large effects for a subset of countries and individual historical episodes are possible.

2. Empirical analysis

2.1. Data and descriptive statistics

We discuss descriptive statistics for short-term nominal interest rates for 19 OECD countries over the 1972-2010 period, excluding European Monetary Union (EMU) countries. Our sample includes Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy, Iceland, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, the United Kingdom and the United States. Some countries are not useful to include in our analysis: Japan was ruled by one party for most of its post-war history; in Ireland, the left-right spectrum does not exist in the usual sense; Luxembourg does not have its own independent monetary policy. Government ideology does not change in Switzerland as measured by party control since the national government always has members from four parties. The short-term nominal interest rates are from the OECD's Main Economic Indicators.⁴ The data frequency is quarterly and the observation period varies by country owing to data availability. The sample ends in 1998.4 for the EMU member countries (Austria, Belgium, Finland, France, Germany, Ireland, Italy, the

⁴ Short term rates are usually either the three month interbank offer rate attaching to loans given and taken amongst banks for any excess or shortage of liquidity over several months or the rate associated with Treasury bills, Certificates of Deposit or comparable instruments, each of three month maturity.

Netherlands, Portugal and Spain) and in 2000.4 for Greece, which joined the EMU two years later. For the non-EMU countries, we use data up to 2010.4 (Australia, Denmark, Iceland, New Zealand, Norway, Sweden, the United Kingdom and the United States).

Scholars disagree about whether interest rates or money growth rates are more suitable as measures of the expansiveness of monetary policy. Vaubel (1993) advocates, for example, using money growth rates. Interest rates may not be appropriate because they are influenced by many unobserved variables (or factors that are difficult to measure), such as money demand, investment and saving preferences, or uncertainty about cash values. The primary determinant of the growth of the demand for money is the growth of permanent real income or output (quantity theory). While permanent income growth may have remained fairly constant within a given OECD country during our period of observation, it has varied considerably across OECD countries. We therefore use monetary expansion minus trend growth of real GDP as an alternative dependent variable. Data on the monetary aggregate M1, expressed in national currency stock levels, for non-Euro countries are taken from the OECD.⁵ For countries in the Eurozone, data on monetary aggregates exist only until the introduction of the Euro⁶ and are not provided by the OECD. To avoid measurement error associated with combining different data sources, we use the monetary data from the OECD for nine countries: Australia, Canada, Denmark, Iceland, New Zealand, Norway, Sweden, the United Kingdom and the United States.⁷ Table A1 shows descriptive statistics and data sources for all variables used in the analysis.

The mean levels of the short-term nominal interest rate over the entire sample period were 8.83% under leftwing, 10.12% under center and 8.84% under rightwing governments (Table 1). The government ideology variable is from Potrafke (2009). Following the classification of Budge et al. (1993), the variable takes on the values 1 and 2 for rightwing governments, 3 for center governments, and 4 and 5 for leftwing governments. The coding is consistent across time, but does not capture differences between the party-families across countries. Table 1 suggests that interest rates did not differ under leftwing governments and rightwing governments over the 1972-2010 period. A similar picture emerges for the money growth rate. Although the GDP-adjusted mean level of monetary expansion was slightly lower under leftwing governments than rightwing governments (6.84% versus 8.32%), the difference does not turn out to be statistically significant.

⁵ We calculate year-over-year money growth rates.

⁶ Note that the official policy of euro area countries was to compile historical estimates of monetary aggregates back to 1980. Data prior to 1980 exist, but are not strictly comparable to the officially estimated figures of national contributions to the euro area monetary aggregates for the post-1980 period.

⁷ We will also consider running the models with the nominal short-term interest rate as dependent variable on this sample.

[Table 1]

The OECD countries were influenced heavily by extraneous forces, such as the oil price shocks in the 1970s, the abolishment of capital controls and the wave of trade liberalization in the 1990s with creation of the EC's single market, the Uruguay round of GATT (1993), free trade agreements, such as NAFTA (1994), and so on. Since these structural differences may render different periods incomparable, it is instructive to consider interest rate and money growth rate developments over different subperiods (see Tables 2 and 3). Between 1972 and 1979, for example, interest rates were significantly higher under rightwing governments (10.05%) than under leftwing governments (8.02%). Between 1980 and 1989, that pattern reverses. In the 1990s, interest rate levels generally were lower and the difference between leftwing and rightwing governments becomes numerically small (7.47% and 8.92%). In the most recent decade of our sample period (2000-2010), interest rates are at their lowest levels, although slightly higher under leftwing (4.52%) than rightwing governments (3.42%). Based on these unconditional correlations, however, we cannot draw any conclusions on the looseness or tightness of monetary policy, since we do not account for different inflation rates in the respective countries or over the time periods considered. The unconditional correlations also do not control for central bank (in)dependence and exchange rate regimes: governments can influence interest rates only when central banks follow their directives and exchange rates are flexible. We consider central bank dependence and the exchange rate regime in the next section.

[Table 2]

[Table 3]

The GDP-adjusted monetary expansion was around 1.8 percentage points smaller under leftwing than rightwing governments over the 1972-1979 period (Table 3). In the 1980s, the difference grows to 2.35 percentage points, before decreasing again during the 1990s, when the monetary expansion measure was quite similar under leftwing and rightwing governments. During the early 2000s, GDP-adjusted monetary expansion is roughly the same under leftwing and rightwing governments. None of the differences for the considered sub-periods are statistically significant.

Clearly, the unconditional correlations between government ideology and the interest rate or the monetary expansion measures are quite likely to be confounded by other factors. We next investigate the relationship in a regression framework based on the Taylor rule in Section 2.2.

2.2. Regression results

Following previous studies, we estimate panel data models using the short-term nominal interest rate (*irs*) as the dependent variable (Taylor rule). We also estimate the model using the monetary expansion (M1) rate minus trend growth of real GDP as the dependent variable (*expansion*). As explanatory variables, we include the inflation rate (*CPI*), the output gap (*gap*), and country and year-by-quarter fixed effects. We add Potrafke's (2009) government ideology variable (*ideo*), a dummy variable for flexible exchange rates (*no peg*) based on Ilzetzi et al.'s (2017) exchange rate regime classification, and a measure of central bank dependence. Central bank dependence (*CBD*) is measured as the inverse of the central bank independence index from Bodea and Hicks (2015) – larger values of *CBD* thus mean greater dependence on the directives of the government. We also enter the interaction terms *ideo***CBD*, *ideo***no peg*, *CBD***no peg* and the triple interaction term *ideo***CBD***no peg*. Much of our focus will be on marginal effects that describe how government ideology influenced monetary policies conditional on the exchange rate regime and the level of central bank dependence. This is because, as discussed above, the effect of government ideology is expected to be heterogeneous depending on those factors – if the exchange rate regime is inflexible, there is less room for ideology-induced monetary policy. We estimate dynamic panel data models that also include the lagged dependent variable. The following equation specifies the estimation equation of the full model:

$$\begin{aligned} y_{it} = & \rho y_{it-1} + \alpha CPI_{it} + \beta gap_{it} \\ & + \gamma ideo_{it} + \delta CBD_{it} + \zeta no\ peg_{it} \\ & + \tau ideo_{it} * CBD_{it} + \theta CBD_{it} * no\ peg_{it} + \varphi ideo_{it} * no\ peg_{it} \\ & + \vartheta ideo_{it} * CBD_{it} * no\ peg_{it} \\ & + \mu_i + \omega_t + \epsilon_{it}, \end{aligned}$$

where y_{it} is either *irs* or *monetary expansion*.

The dynamic panel model uses the LSDVC estimator as proposed by Bruno (2005), with the Anderson and Hsiao (1982) estimator initializing the correction procedure. Since Monte Carlo simulations show that the analytical variance estimator performs poorly for a large autoregressive coefficient (Kiviet and Bun 2001), we employ a parametric bootstrap procedure to estimate the asymptotic variance-covariance matrix of the LSDVC estimator.⁸ Clearly, central banks are forward-looking and it would be preferable to model central bank behavior using forward-looking and real-time data (Giesenow and de Haan 2019). Unfortunately, these data are not available until relatively recently (1989 for most countries in the sample). We need data from the 1970s for our purposes.

Table 4 reports the regression results for the Taylor-rule specification for the full sample and individual decades. During the 1970s and the 2000s, the central bank independence measure hardly changed, so we do not estimate *CBD* or its interactions – they are absorbed by the country fixed effects. Similarly, *no peg* hardly changed at all during the 2000s. The coefficient estimates for the inflation rate, the output gap and the lagged dependent variable display the expected sign and are statistically significant in all seven specifications (the exception is the output gap in columns 2 and 6). As theory predicts, the inflation rate and the output gap are positively correlated with the nominal interest rate.⁹ The lagged dependent variable is statistically significant at the 1% level with a coefficient estimate of around 0.67 to 0.81, indicating that interest rates are highly persistent.

Government ideology enters in up to four explanatory variables: the government ideology *ideo*, as such, the double interaction terms *ideo***CBD* and *ideo***no peg*, and the triple interaction term *ideo***CBD***no peg*. In column (4), for example, the government ideology variable has a negative sign and is statistically significant at the 1% level, the interaction term *ideo***no peg* has a positive sign and is statistically significant at the 1% level, the interaction terms *ideo***CBD* and *ideo***CBD***no peg* have negative signs, but lack statistical significance. In column (7), by contrast, the four variables including government ideology lack statistical significance. To evaluate the effect of government ideology on the short-term nominal interest rates, the individual coefficient estimates are not useful for interpretation. Since we expect

⁸ Focusing on the iteration (b) the procedure proposed by Kiviet and Bun (2001) is implemented as follows: Upon obtaining initial LSDVC estimates for the parameters and the variance of the disturbance term ($\widehat{\sigma}^2$) the routine calculates the N -vector of fixed effect estimates. Then it obtains bootstrap errors $\epsilon^{(b)}$ as a draw from $N(0, \widehat{\sigma}^2)$. Then it obtains a bootstrap sample from $y_{it}^{(b)} = \hat{\gamma} * y_{it-1}^{(b)} + \hat{\beta} * x_{it} + \hat{\eta}_i + \epsilon_{it}^{(b)}$. Using the resampled dataset, it applies LSDVC to $(y^{(b)}, x)$ to yield $\widehat{\gamma}^{(b)}$ and $\widehat{\beta}^{(b)}$.

⁹ The long-run effects of the inflation rate and the output gap are determined by dividing the individual coefficient estimates in Table 4 by one minus the coefficient estimate of the lagged dependent variable. In column (7), for example, the long-run effects of the inflation rate and the output gap are $0.25/(1-0.81) = 1.32$ and $0.11/(1-0.81) = 0.58$ (the Taylor-rule predicts effects of 2 and 0.5).

government ideology and the short-term nominal interest rate to be related only under certain exchange rate regimes and levels of central bank dependence, we need to compute marginal effects for the government ideology variable, conditional on these factors. Where possible, we compute marginal effects of government ideology conditional on flexible exchange rates (no peg) and the degree of central bank dependence.¹⁰

The marginal effects do not suggest that government ideology was correlated with short-term nominal interest rates over the 1972-2010 period for any level of central bank independence (column 7). They do however suggest that, depending on the level of central bank independence and under flexible exchange rates, government ideology was correlated with short-term nominal interest rates over the 1990-2010 period (column 4), especially so during the 1990s (column 5). That is, the marginal effects in columns 4 and 5 indicate that, when central bank independence was strong and exchange rates were flexible, leftwing governments presided over higher interest rates than rightwing governments. The finding of higher interest rates under leftwing than rightwing governments contradicts partisan theories, which predict lower interest rates under leftwing governments. For the two decades from 1990 to 2010, at minimum central bank dependence, an increase in the government ideology variable by one point – moving, for example, from a center government to a leftwing government – increases the short-term nominal interest rate by 0.24 percentage points (short-run effect). These results are in line with those of Belke and Potrafke (2012), whose analysis covers the 1980-2005 period, and are consistent with the idea that leftwing governments outsource monetary policy to conservative central bankers. On the other hand, when central banks are dependent, the results in column 5 for the 1990s suggest that leftwing governments had lower interest rates than rightwing governments – a result that corroborates the partisan theory, the predictions of which are expected to be more pronounced when central banks are dependent. At the maximum of CBD, a one-point increase in the ideology variable reduces interest rates by 0.23 percentage points.

[Table 4]

We also use monetary expansion minus GDP trend growth as the dependent variable (Table 5). The results do not suggest that government ideology (conditional on flexible exchange rates and any degree of central bank dependence) was correlated with monetary expansion minus GDP trend growth. Owing to a lack of variation in the CBD variable and the

¹⁰ The marginal effects are computed in terms of combinations of the estimated coefficients and standard errors (delta method). For example, the marginal effect of government ideology at the maximum of central bank dependence when exchange rates are flexible is $\hat{\gamma} + (\hat{\tau} + \hat{\vartheta}) * \max CBD + \hat{\phi}$, using the coefficient estimates from the model.

exchange rate dummy, we cannot estimate triple interactions in columns 2, 5 and 6. Because changing the dependent variable implies a change in the sample, we also have estimated the Taylor rule using the short-term interest rate as dependent variable on the smaller sample for which data on monetary expansion minus GDP trend growth is available (i.e., Table 5). The results confirm the finding in Table 4, column 4, of a statistically significant relationship between government ideology and interest rates for the 1990-2010 period (results not shown). In particular, at the minimum of CBD and under flexible exchange rates, a one-point increase in the government ideology variable is associated with an increase in interest rates by 0.17 percentage points, which is close to the increase of 0.24 percentage points from Table 4, column 4.

[Table 5]

We have conducted jackknife tests excluding individual countries. The results do not suggest that the inferences are driven by including/excluding an individual country.

Overall, the regression results suggest that the considered time period and the exchange rate regime/central bank dependence of the countries in the sample matter for drawing conclusions when examining the relationship between government ideology and monetary policy, as does the choice of how we measure the looseness or tightness of that policy. Although we do not make any causal claims, the findings support the need for a more detailed survey at the individual country level when correlations are so clearly driven by the chosen sample. We discuss monetary policies in four selected countries in the next section.

3. Monetary policies in individual countries

We survey the evidence on Greece, the Netherlands, Sweden and the United States. Those countries are chosen because they present good examples of historical episodes in which monetary policies clearly were or were not ideology-induced.

3.1. Greece

Greece is one of the prime examples for ideology-induced monetary policies in the OECD countries, particularly in the 1980s and early 1990s. Greece was an autocracy until 1974. The first democratic governments were rightwing and governed from 1974 until 1981. The leading figure was Konstantinos Karamanlis of the New Democracy (ND) party, who served his fourth term as Greece's prime minister from July 1974 to May 1980. One of Karamanlis' greatest achievements was Greece's admission to the European Community in 1981. His new democratic government abandoned the peg of the Greek drachma to the US dollar and introduced an accommodating crawling peg exchange rate. Fiscal and monetary policies were not restrictive at the end of the 1970s (Alogoskoufis 1995). Labor unions increasingly became powerful, as did the leftwing Panhellenic Socialist Movement (PASOK), founded in September 1974. Karamanlis' conservative party lost the parliamentary elections in 1981. Leftwing governments led by Andreas Papandreou were in office in the 1980s (Greece has had a two-party system with the ND and PASOK for many decades). Under those leftwing governments, expansionary policies were implemented (Alogoskoufis 2013).

The Greek central bank depended on the government until 1996, and its dependence was quite pronounced. Political alignment between the Greek government and the Greek central bank was strong up to that point. In November 1981, for example, the newly elected leftwing government replaced the independent governor of the Greek central bank, Xenophon Zolotas, with the leftwing politician Gerasimos Aresenis. Short-term nominal interest rates fell from 20.5% in 1981.4 to 15.25% in 1982.1 (Figure 1).

A new rightwing government was elected in 1990, which implemented more restrictive economic policies than the leftwing predecessor governments. Monetary policies became more restrictive under that government, and the rightwing politician Efthymios Christodoulou was installed as Governor of the Bank of Greece in 1992-1993.

By contrast, the leftwing government that was elected in October 1993 reversed many of its predecessor's market-oriented reforms and started to implement more expansionary fiscal policies (Alogoskoufis 1995). The new leftwing government also agitated for more

expansionary monetary policies. Short-term nominal interest rates fell from 19.3% in 1994.1 (the first full quarter the new leftwing government was in power) to 5.0% in 2000.4 (the last quarter we consider in our sample – still under a leftwing government – before Greece entered the EMU at the beginning of 2001).¹¹ While suggestive, by the mid-1990s, political convergence started because the national target was to participate in the euro area. Alogoskoufis (2013, p. 9) describes how, over the 1990-1994 period, “fiscal adjustment was based on the creation of large primary surpluses” while “during the five years 1995-1999, there was no further adjustment in the primary surplus, and the further reduction of the general government deficit was achieved through the reduction of nominal interest rates that gradually adapted to expectations of lower inflation”. Ideology-induced economic policies retired to the background in the 2000s.

3.2. The Netherlands

Monetary policies in the Netherlands were unlikely to be ideology-induced, even though a large negative left-right interest rate differential is observed: Figure 2 shows that short-term nominal interest rates were 3.54% under leftwing, 7.95% under center and 6.93% under rightwing governments over the 1980-1998 period. The differences between leftwing and center or rightwing governments are statistically significant at the 1% level, perhaps suggesting that government ideology may have played an important role consistent with the partisan theories. However, the Netherlands has for the most part pegged its currency to the Deutschmark, limiting room for maneuvering as a function of government ideology because the Netherlands also did not have capital flow controls in place. After the end of the Bretton Woods system, Dutch monetary policies were oriented towards the Deutschmark as the nominal anchor. The Dutch currency (Guilder) was tied closely to the Deutschmark from March 1983 (and devaluated against the Deutschmark that month by a rightwing government against the advice of the Dutch central bank). Figure 2 shows the strong correlation between the Dutch and the German nominal interest rates, thereby rendering Dutch partisan influence unlikely. The Netherlands participated in the EMS over the 1979-1998 period and the EMU from January 1999. The objective of the Nederlandsche Bank over that period was to “regulate the value of the guilder in order to enhance welfare” (Dutch Bank Law, section 9.1), interpreted as maintaining “a stable exchange rate for the guilder vis-à-vis the deutsche mark” (Eijffinger and de Haan 1996, p. 16).

¹¹ Over the 1994-2000 period, Greece had the largest reductions in interest rates observed in our sample.

The 1948 Banc Act stated that the Nederlandsche Bank was to be independent. On the other hand, the law also assigned parliamentary responsibility for monetary policies to the Minister of Finance. There has always been collaboration between the Nederlandsche Bank and the Ministry of Finance regarding monetary policies (de Greef et al. 1998). Likewise, the Nederlandsche Bank wanted fiscal policies to support monetary policies. From 1957 to 1994, de Greef et al. (1998, p. 20) identify various periods of distinct fiscal and monetary policies. Government ideology does not predict the classification into those policy periods or the individual monetary policy instruments used.

It is true that rightwing governments were quite active in liberalizing the capital accounts: “the de Jong cabinet from 1967 to 1971 was the first real center-right coalition of the modern (secular) party system, and during its first 7 months in office, the government enacted more liberalizations than the previous four governments had enacted in the 5 years prior; by the end of the first year, banks had unlimited access to foreign money markets” (Kastner and Rector 2005, p. 501). The center government over the 1973-1977 period did not reverse the reforms that the rightwing de Jong government had implemented, but also did not push forward de Jong’s desires to abolish the Exchange Control Decree (*Devienzenbesluit*) of 1945. A bill following up on de Jong’s wishes was passed in 1980 under a rightwing government.

3.3. Sweden

In the case of Sweden, monetary policies were quite restrictive under leftwing governments, but high nominal interest rates under leftwing governments were not a result of ideology-induced policies. The national government enjoyed substantial autonomy regarding fiscal and monetary policies; its decisions mostly were backed by the legislative assembly prior to 1995. Until the end of the 1990s, political control also extended to the Swedish Riksbank, whose chairman had close ties to the government, acting simultaneously as undersecretary of the Ministry of Finance. The other six members of the Riksbank’s General Council were appointed by parliament. The term of office for the central bank’s governor coincided with the election cycle until 1989, giving newly elected governments the opportunity to appoint ideologically aligned candidates. The scope for policy action prior to the 1990s in Sweden was thus quite large compared to other OECD countries.

At the beginning of the 1970s, the policy goals of a fixed exchange rate for the krona, low inflation and low interest rates dominated. The Riksbank acted as an extended arm of the government and “monetary policy became an integral part of overall allocative and distributional policies” (Jonung 1993, p. 348). During the 1970s, the Keynesian view gradually

was undermined when the expansive fiscal policy of “bridging-over” gave rise to a large budget deficit and inflationary pressures. In 1976, the Social Democratic Party under Olof Palme as its most dominant political force lost an election for the first time in the post-war period. The succeeding coalition regime of center, moderate and leftist parties followed a tight monetary policy stance in response to the second oil price shock with several devaluations to restore Swedish competitiveness. The moderate party was the first political party to raise internal discussions about a central bank independence reform (Lönnroth 2016). In the mid-1980s, the Social Democratic party, which regained power in 1982, had difficulty controlling the Riksbank, for example, when it increased interest rates during the 1985 election campaign. In 1987, parliament – where the Social Democrats were still the largest party – passed a new law stripping the government of its right to appoint the Chair of the Riksbank Council.

At the end of the 1980s, the formerly dominant Social Democratic party faced a loss of power, which gradually induced some economic rethinking towards a more market-oriented approach. The Finance Minister Kjell-Olof Feldt (1982-1990) and the Riksbank were the most prominent proponents of deregulation.

In light of the failed devaluation strategy and high inflation economy of the 1980s, the 1991 elections marked a change in economic views and also a major defeat for the Social Democratic party. Conservative and liberal parties emerged as winners and formed a four-party minority government under Carl Bildt. Subsequently, the floating of the currency and market-oriented reforms launched under the structural program “A New Start for Sweden” contributed to a rapid economic recovery. In 1994, the Social Democrats returned to power under prime minister Ingvar Carlsson and soon implemented – in a coalition with the Center Party – a budget policy package with higher taxes and announced budgetary savings that strengthened the general government balance. When Sweden joined the EU on January 1, 1995, the Riksbank began to prepare for the introduction of the euro. As part of the convergence to the rules of the EMU, the Riksbank’s independence was strengthened from January 1, 1999. The objective of monetary policy was to maintain price stability while the Riksbank would still support the objectives of general economic policy.

3.4 United States

The appointment process of the seven appointed Board of Governors (BOG) members has been described as being driven by political preferences. However, candidates nominated by the US president must be confirmed by the US Senate, so partisan control of the Senate is a major consideration (Chang 2001). Members of the Senate, especially the members of the Senate (and House) Banking Committee have lobbied for monetary policies in line with their political preferences (Grier 1991, 1996; Chopin et al. 1996a b; Hess and Shelton 2016).

The Federal Open Market Committee's (FOMC) members' voting behavior on setting the Federal Funds rate used to depend on whether they were appointed by Democratic or Republican administrations (early relevant studies include Chappell et al. 1993; McGregor 1996). Members appointed by Republican administrations were more likely to advocate federal funds rates above the "optimal" rate determined by the Taylor rule than members appointed by Democratic administrations. Over the 1979-2014 period, however, the political alignment of the FOMC members hardly predicted FOMC decisions in general (that is, to lower, raise or leave unchanged the Fed Fund target rate – see Smales and Apergis 2016). On the other hand, over the 1992-2001 period, Eichler and Lähler (2014) find that Republican appointees to the FOMC were more likely to cast dissenting votes in favor of tighter monetary policy when their forecasts of inflation and real GDP growth rates were higher than those of Democratic appointees. When dissenting, Republican appointees put more weight on their forecasts for inflation than their forecasts for real GDP growth.

The party affiliation of the US president and the political alignment of the Fed chairman with the appointing US president likewise have been shown to correlate with the federal funds rate and monetary base growth (Caporale and Grier 2000, 2005; Abrams and Iossifov 2006). Monetary base growth has been shown to be higher under Democratic governments than Republican governments (Hibbs 1986, 1987; Havrilesky 1987; Faust and Irons 1999). The extent to which interest rates were lower under Democratic than Republican governments is, however, controversial (Quinn and Shapiro 1991; Alesina et al. 1997; Chen and Wang 2013; Blinder and Watson 2016).

Anecdotal evidence suggests that the Federal Reserve has at times been subjected to political influence. With economic deterioration following 1973, critics in Congress pushed bills restricting the Fed's independence. House Concurrent Resolution 133 of 1975 required the Fed to report to Congress on a regular basis its monetary policy objectives (Weintraub 1978; Bartels 1985). Those requirements later were included in the Federal Reserve Act in 1977, which linked the Fed's monetary policies to the president's economic projections. While the Fed's

independence remained for the most part intact, it now had to provide Congress with its monetary policy objectives ahead of time, and the following years “were ones of an acquiescent Fed” (Bartels 1985, p. 38). From late 1976 until late 1979, the Fed’s stance appeared to accommodate political desires for low interest rates and strong growth, despite increasing inflation.

Some individual chairs of the Fed enjoy a reasonable degree of power and autonomy from the administration that appointed them. An example is Paul Volcker, appointed to the Fed in August 1979, who played a major role in reasserting the autonomy of the Fed and changing its policy strategy. He believed that the Fed “had been too acquiescent to presidents in the past” (Bartels 1985, p. 38). He was known for hawkish views by the Carter administration, but Carter appointed him anyway, and the appointment enjoyed support across the political spectrum (Lindsey et al. 2013). The “Volcker Revolution” of 1979, the “most fundamental change in monetary policy in recent memory” (Taylor 2017a) was undertaken without seeking White House approval. When tightening was required prior to the 1980 presidential election, the Fed came under sharp criticism from the Carter administration.

The ideological leanings of other Fed Chairs have been a topic of much discussion, as well. Their views certainly can be identified to some degree, though the extent to which those views impacted policy is debatable. Alan Greenspan, considered to be a conservative Republican, was appointed by President Reagan and reappointed by Clinton. Mankiw (2002, p. 39) notes that “it would have been natural for Clinton to want to put a more Democratic stamp on the nation’s central bank. That he chose not to do so is notable. To the extent that Greenspan’s Fed has been a success, the Clinton administration deserves some of the credit.” Mankiw (2002, p. 40) argues further that the Clinton administration did influence monetary policy through its appointments to the Board of Governors, such as Alan Blinder, Ned Gramlich, Lawrence Meyer, Alice Rivlin and Janet Yellen, but “whether this had any effect on policy is hard to say.” In addition, the Clinton administration made the important decision to refrain from commenting on Fed policy: “given the great influence the Fed has on the economy and the great influence the economy has on presidential popularity, presidents [...] usually have a tough time remaining silent about monetary policy. Yet the Clinton administration avoided this temptation.” The administration’s restraint may have made it easier for the Fed to cut or raise interest rates when needed without political opposition.” In consequence, “the White House again deserves some credit for the Fed’s success” (Mankiw 2002, p. 40). During the 2003-2006 period, in the final years of Greenspan’s tenure, interest rates were kept artificially low, well below those that would be prescribed by following a systematic Taylor rule (Taylor 2007, 2017b), although the principal

reason for the deviation was stated as fear of deflation motivated by Japan's experience in the mid-1990s.

Ben Bernanke, Fed chairman from 2006 to 2014, a Republican appointed by George W. Bush, was described before he was chosen as relatively non-ideological and having credibility among academics and policy-makers of both conservative and liberal persuasions. Bernanke and Greenspan differed substantially in their views, despite both being appointed by Republican presidents.¹² For example, Bernanke long advocated inflation-targeting, and in January 2012, announced the first explicit inflation target for the United States of 2%; Greenspan had opposed explicit inflation-targeting on the basis that it would limit the Fed's flexibility and be difficult to implement.

4. Conclusions

Governments do not influence monetary policies directly when central banks are independent. But governments may well influence the central banks' monetary policies indirectly by, for example, appointing central bank officials. While previous studies have estimated the relationship between government ideology and interest rates over long periods of several decades (e.g., Belke and Potrafke 2012; Giesenow and de Haan 2019), inferences about those relations differ when looking across time periods, subsamples of countries, and measures of monetary expansiveness. Previous studies also have not disentangled the effect of government ideology conditioned on both central bank dependence and flexible exchange rates.

Our results do not suggest that government ideology was associated with monetary policies over the full 1972-2010 sample period, supporting conclusions by Giesenow and de Haan (2019). Monetary policies were, however, more expansionary under leftwing than rightwing governments in the 1990s: short-term nominal interest rates were lower under leftwing than rightwing governments when central banks followed the central governments' directives and exchange rate were flexible. Very independent central banks, however, increased interest rates when leftwing governments were in office, corroborating the previous study by Belke and Potrafke (2012).

Differences likewise emerge across nations that are important to consider before drawing conclusions from the cross-country studies. Greece is a prime example of a country that appeared to exhibit ideology-induced monetary policies in the 1980s and the early 1990s. In contrast, in Sweden, monetary policies were quite restrictive under leftwing governments.

¹² In his memoir, Bernanke (2010) announced that he was no longer a Republican, but rather an independent.

Anecdotal evidence for Sweden suggests, however, that high nominal interest rates under leftwing governments were not a result of ideology-induced policies, especially at the end of the 1980s. The Netherlands is another example in which a strong correlation between interest rates and government ideology is likely coincidental: over the 1980-1998 period, leftwing governments oversaw more expansionary monetary policies than rightwing governments. In fact, the Netherlands tightly pegged its currency to the German Deutschmark from March 1983 onward and Dutch interest rates were to a large extent simply determined by German monetary policies.

Future research may examine how governmental ideologies of Eurozone countries influence the monetary policy of the European Central Bank. During the European debt crisis starting around 2008, Northern and Southern European countries seemed to have different views on monetary policies. Future research likewise should investigate whether leftwing Northern and Southern European governments had views that differed from rightwing Northern and Southern European governments, and how those differences may have translated into Europe-wide monetary policy decisions.

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Table A1: Descriptive statistics and data sources

| | Obs. | Mean | SD | Min | Max | Source |
|---|-------------|-------------|-----------|------------|------------|---|
| Interest rate | 2,028 | 9.06 | 5.03 | 0.16 | 36.83 | OECD Main Economic Indicators (MEI) |
| Monetary expansion (M1) minus real GDP trend growth | 1,032 | 6.77 | 6.59 | -15.20 | 41.88 | M1: OECD Monthly Monetary and Financial Statistics (MEI) Real GDP: see below |
| Inflation | 2,028 | 1.35 | 1.38 | -2.83 | 9.73 | OECD Main Economic Indicators |
| Output gap | 2,028 | -0.03 | 1.54 | -6.70 | 6.46 | Calculated based on real GDP from OECD Quarterly National Accounts |
| Ideology | 2,028 | 2.94 | 0.94 | 1.00 | 4.00 | Potrafke (2009) |
| CBD | 2,028 | 0.55 | 0.20 | 0.04 | 0.91 | Inverse of CBI from Bodea and Hicks (2015) |
| No peg | 2,028 | 0.42 | 0.49 | 0.00 | 1.00 | Dummy variable based on Ilzetzki, Reinhart and Rogoff (2017) |

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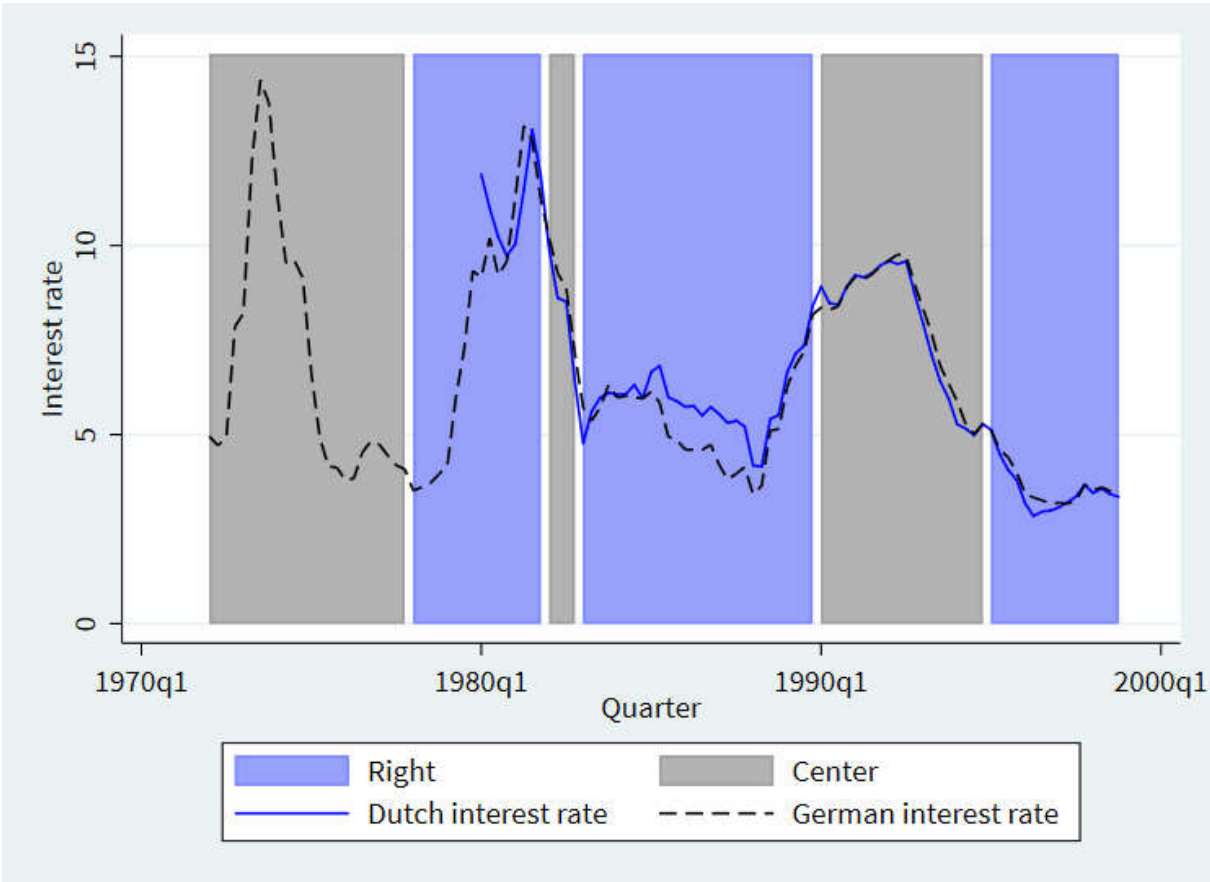
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Figure 1: Greece



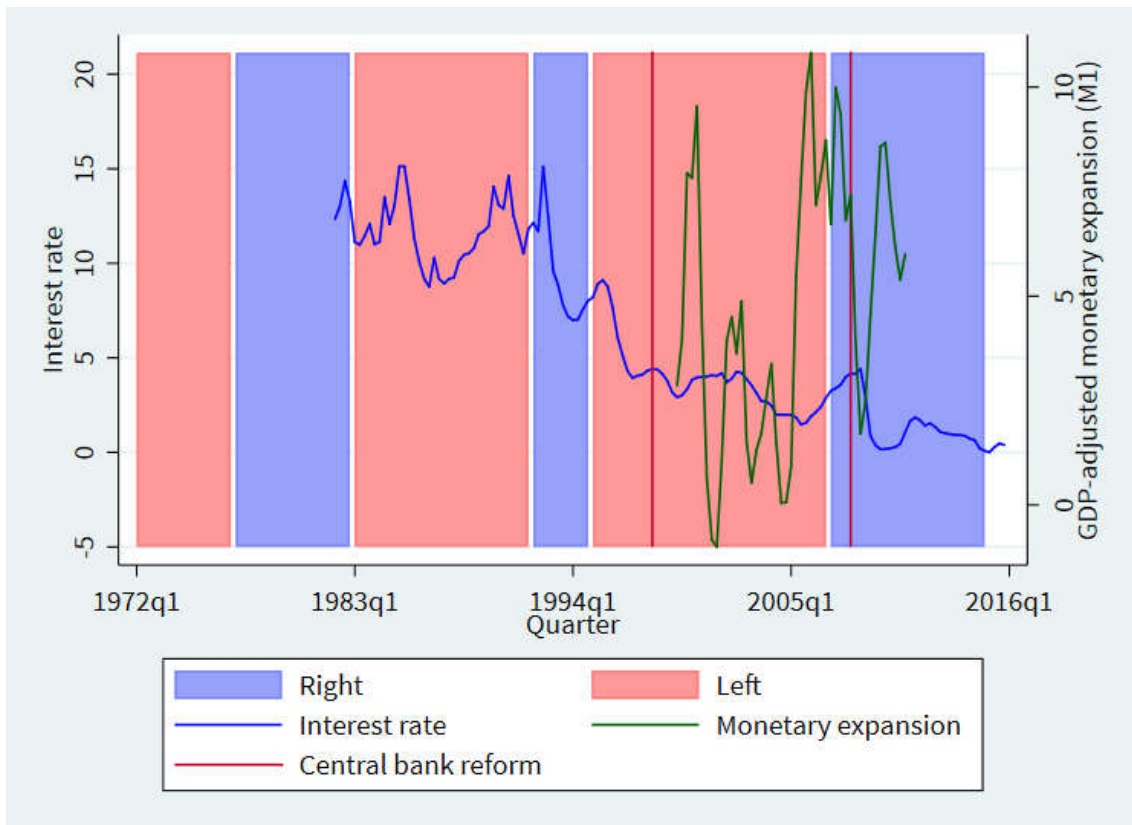
Notes: The mean interest rate under leftwing governments in Greece (1980-2000) was 15.02% (60 observations) compared to 22.07% (23 observations) under rightwing governments (p-value 0.00).

Figure 2: Netherlands



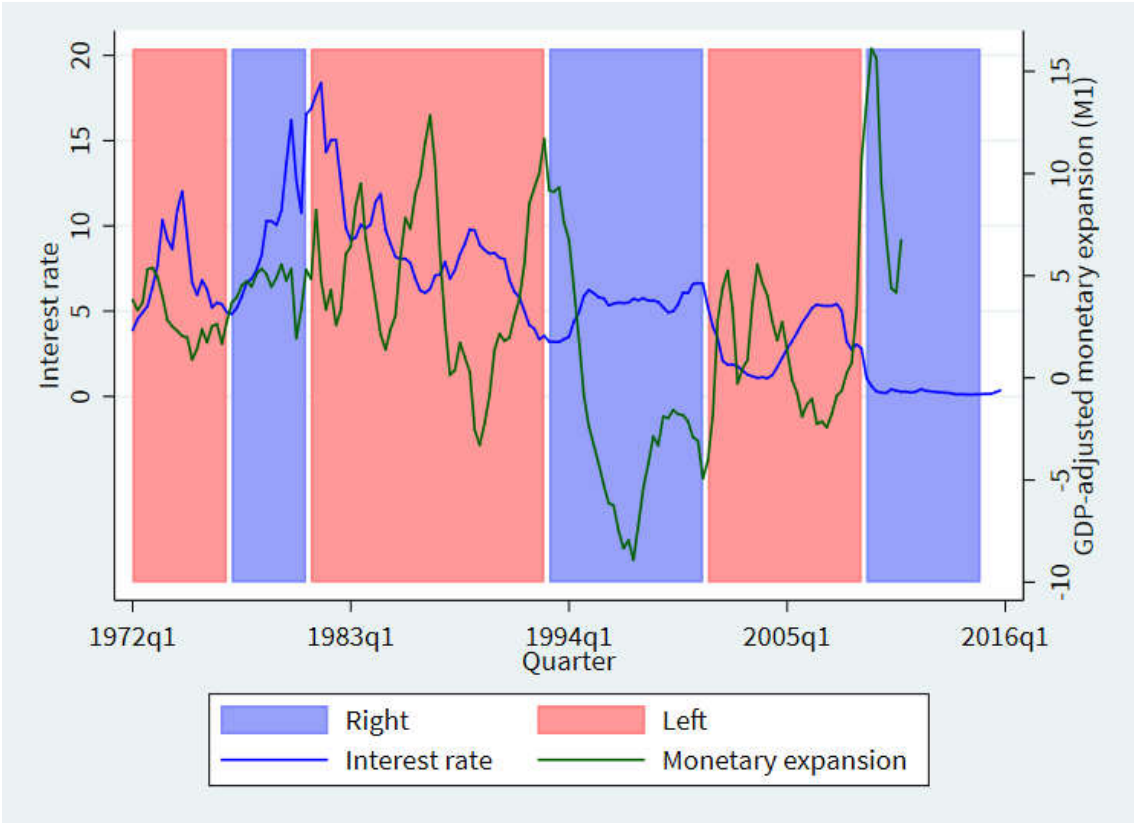
Notes: The mean interest rate under leftwing governments in the Netherlands (1980-1998) was 3.54% (16 observations) compared to 6.93% (35 observations) under rightwing governments (p-value 0.00) and compared to 7.95% (24 observations) under center governments (p-value 0.00).

Figure 3: Sweden



Notes: The mean interest rate under leftwing governments in Sweden (1982-2010) was 7.18% (84 observations) compared to 6.08% (31 observations) under rightwing governments (p-value 0.59). The mean GDP-adjusted monetary expansion under leftwing governments in Sweden was 4.02% (31 observations) compared to 6.34% (16 observations) under rightwing governments (p-value 0.78).

Figure 4: United States



Notes: The mean interest rate under leftwing governments in the United States (1972-2010) was 5.88% (56 observations) compared to 6.71% (100 observations) under rightwing governments (p-value 0.51). The mean GDP-adjusted monetary expansion under leftwing governments in the United States was 1.64% (56 observations) compared to 3.20% (100 observations) under rightwing governments (p-value 0.95).

Table 1: Differences in means

| | Leftwing | Center | Rightwing | Difference | p-value |
|--|-----------------|---------------|------------------|-------------------|----------------|
| Mean level of interest rate | 8.83 | 10.12 | | -1.29 | 0.12 |
| | | 10.12 | 8.84 | 1.28 | 0.11 |
| | 8.83 | | 8.84 | -0.02 | 0.98 |
| Observations | 803 | 350 | 875 | | |
| Mean level of monetary expansion (M1) minus GDP trend growth | 6.84 | 20.07 | | -13.23 | 0.02 |
| | | 20.07 | 8.32 | 11.75 | 0.04 |
| | 6.84 | | 8.32 | -1.49 | 0.17 |
| Observations | 534 | 64 | 542 | | |

Notes: The descriptive statistics are based on an unbalanced panel of 19 countries for the interest rate and nine countries for the monetary expansion minus GDP trend growth over the 1972-2010 period. Reported p-values are two-sided and are based on Newey-West standard errors.

Table 2: Differences in mean interest rates. Different sample periods.

| | Leftwing | Center | Rightwing | Difference | p-value |
|--|-----------------|---------------|------------------|-------------------|----------------|
| 1972-1979 | 8.02 | 8.23 | | -0.21 | 0.82 |
| | | 8.23 | 10.05 | -1.82 | 0.08 |
| | 8.02 | | 10.05 | -2.04 | 0.02 |
| Observations | 97 | 36 | 107 | | |
| Notes: 11 countries included with 6 government changes over the subsample period. | | | | | |
| 1980-1989 | 13.99 | 13.43 | | 0.56 | 0.67 |
| | | 13.43 | 11.15 | 2.28 | 0.08 |
| | 13.99 | | 11.15 | 2.83 | 0.00 |
| Observations | 246 | 146 | 320 | | |
| Notes: 19 countries included with 22 government changes over the subsample period. | | | | | |
| 1990-1999 | 7.47 | 7.65 | | -0.18 | 0.83 |
| | | 7.65 | 8.92 | -1.27 | 0.16 |
| | 7.47 | | 8.92 | -1.45 | 0.08 |
| Observations | 268 | 168 | 284 | | |
| Notes: 19 countries included with 26 government changes over the subsample period. | | | | | |
| 2000-2010 | 4.52 | | 3.42 | 1.10 | 0.01 |
| Observations | 192 | 0 | 831 | | |
| Notes: 9 countries included with 12 government changes over the subsample period. | | | | | |

Notes: Reported p-values are two-sided and are based on Newey-West standard errors.

Table 3: Differences in mean rates of monetary expansion minus GDP trend growth. Different sample periods.

| | Leftwing | Center | Rightwing | Difference | p-value |
|---|-----------------|---------------|------------------|-------------------|----------------|
| 1972-1979 | 8.49 | 27.32 | | -18.82 | 0.06 |
| | | 27.32 | 10.28 | 17.04 | 0.08 |
| | 8.49 | | 10.28 | -1.79 | 0.52 |
| Observations | 104 | 8 | 70 | | |
| Notes: 7 countries included with 11 government changes over the subsample period. | | | | | |
| 1980-1989 | 10.63 | 36.82 | | -26.19 | 0.00 |
| | | 36.82 | 12.98 | 23.84 | 0.01 |
| | 10.63 | | 12.98 | -2.35 | 0.39 |
| Observations | 108 | 20 | 160 | | |
| Notes: 8 countries included with 11 government changes over the subsample period. | | | | | |
| 1990-1999 | 4.40 | 9.16 | | -4.76 | 0.25 |
| | | 9.16 | 5.82 | 3.34 | 0.41 |
| | 4.40 | | 5.82 | -1.42 | 0.32 |
| Observations | 134 | 36 | 148 | | |
| Notes: 9 countries included with 11 government changes over the subsample period. | | | | | |
| 2000-2010 | 5.48 | | 5.21 | 0.27 | 0.80 |
| Observations | 188 | 0 | 502 | | |
| Notes: 8 countries included with 12 government changes over the subsample period. | | | | | |

Notes: Reported p-values are two-sided and are based on Newey-West standard errors.

Table 4: Regression results. Varying periods and countries. Dependent variable: short-term nominal interest rates. Dynamic bias corrected estimator.

| | (1) 1972-1990 | (2) 1972-1979 | (3) 1980-1989 | (4) 1990-2010 | (5) 1990-1999 | (6) 2000-2010 | (7) Full sample |
|--|--------------------------|---------------------|--------------------------|--|---------------------------------|---------------------|--------------------------|
| Lagged dependent variable | 0.755*** (0.019) | 0.670*** (0.059) | 0.715*** (0.024) | 0.824*** (0.017) | 0.805*** (0.026) | 0.819*** (0.039) | 0.813*** (0.014) |
| Inflation | 0.308*** (0.059) | 0.354* (0.208) | 0.247*** (0.074) | 0.124*** (0.044) | 0.122*** (0.038) | 0.267** (0.113) | 0.251*** (0.036) |
| Output gap | 0.0697* (0.036) | 0.0140 (0.103) | 0.0907** (0.043) | 0.150*** (0.022) | 0.146*** (0.034) | 0.0957 (0.067) | 0.107*** (0.023) |
| Ideology (leftwing) | 0.0920 (0.112) | -0.125 (0.215) | 0.239* (0.132) | -0.175*** (0.057) | -0.176** (0.071) | 0.0374 (0.068) | 0.009 (0.044) |
| CBD | -0.395 (0.384) | - | 1.614 (3.657) | 0.169*** (0.053) | 0.0903 (0.063) | - | 0.059 (0.055) |
| No peg | -0.0455 (0.281) | 0.0758 (0.663) | -0.261 (0.358) | -0.0980 (0.165) | -0.265 (0.256) | - | 0.037 (0.140) |
| Ideology*CBD | -0.141 (0.159) | - | -0.149 (0.194) | -0.0103 (0.043) | -0.0262 (0.045) | - | 0.025 (0.050) |
| CBD*No peg | 0.714** (0.356) | - | 1.387*** (0.481) | -0.0216 (0.097) | 0.184 (0.168) | - | 0.089 (0.113) |
| Ideology*No peg | 0.0495 (0.166) | 0.0638 (0.506) | -0.0953 (0.225) | 0.201*** (0.062) | 0.252*** (0.097) | - | 0.053 (0.056) |
| Ideology*CBD*No peg | 0.0803 (0.172) | - | 0.0589 (0.247) | -0.0694 (0.060) | -0.198* (0.104) | - | -0.063 (0.080) |
| Observations | 1,022 | 234 | 701 | 1,057 | 701 | 390 | 2,028 |
| Number of countries | 19 | 11 | 19 | 19 | 19 | 10 | 19 |
| Marginal effects of government ideology at min./mean/max. of CBD and with no peg | Not stat. significant | | Not stat. significant | 0.239***/ 0.060*/ Not stat. significant | 0.678**/ 0.164*/ -0.229** | | Not stat. significant |

Notes: LSDVC estimator as proposed by Bruno (2005) with the Anderson and Hsiao (1982) estimator initializing the correction procedure. Bootstrap standard errors (50 repetitions) in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 5: Regression results. Varying periods and countries. Dependent variable: monetary expansion minus GDP trend growth. Dynamic bias corrected estimator.

| | (1) 1972-1990 | (2) 1972-1979 | (3) 1980-1989 | (4) 1990-2010 | (5) 1990-1999 | (6) 2000-2010 | (7) Full sample |
|--|-----------------------|---------------------|-----------------------|-----------------------|---------------------|---------------------|-----------------------|
| Lagged dependent variable | 0.831*** (0.033) | 0.681*** (0.069) | 0.851*** (0.023) | 0.851*** (0.026) | 0.855*** (0.038) | 0.934*** (0.036) | 0.858*** (0.0170) |
| Inflation | 0.282 (0.208) | 0.0605 (1.396) | 0.416 (0.288) | -0.322 (0.346) | -0.235 (0.519) | -1.036 (0.740) | 0.368** (0.145) |
| Output gap | -0.229 (0.266) | -0.00917 (1.965) | -0.294 (0.263) | -0.239 (0.196) | -0.0731 (0.233) | -0.0190 (0.400) | -0.220 (0.165) |
| Ideology (leftwing) | 0.0917 (0.531) | 0.519 (3.104) | -0.209 (0.743) | -0.292 (0.483) | -0.320 (0.330) | -0.249 (0.501) | -0.0888 (0.317) |
| CBD | 0.569 (3.226) | - | 21.07 (63.341) | -0.298 (3.148) | - | - | -0.0326 (1.521) |
| No peg | -0.773 (2.279) | -0.617 (7.652) | -2.375 (5.424) | 0.445 (1.279) | - | - | 0.239 (0.880) |
| Ideology*CBD | 0.235 (1.602) | - | -0.293 (2.425) | 0.123 (1.791) | - | - | 0.193 (1.035) |
| CBD*No peg | 0.110 (3.509) | - | 3.257 (7.995) | -0.194 (3.394) | - | - | 0.164 (1.741) |
| Ideology*No peg | 0.131 (1.286) | 0.180 (6.153) | 0.959 (1.489) | 0.0176 (0.521) | - | - | -0.0199 (0.335) |
| Ideology*CBD*No peg | -0.0167 (1.661) | - | -0.0709 (2.638) | -0.248 (1.828) | - | - | -0.168 (1.037) |
| Observations | 497 | 177 | 281 | 662 | 314 | 387 | 1,140 |
| Number of countries | 8 | 7 | 8 | 9 | 9 | 9 | 9 |
| Marginal effects of government ideology at min./mean/max. of CBD and with no peg | Not stat. significant | | Not stat. significant | Not stat. significant | | | Not stat. significant |

Notes: LSDVC estimator as proposed by Bruno (2005) with the Anderson and Hsiao (1982) estimator initializing the correction procedure. Bootstrap standard errors (50 repetitions) in parentheses. *** p<0.01, ** p<0.05, * p<0.1.