

Joint Discussion Paper Series in Economics

by the Universities of

Aachen · Gießen · Göttingen

Kassel · Marburg · Siegen

ISSN 1867-3678

No. 36-2013

Matthias Neuenkirch and Florian Neumeier

Party Affiliation Rather than Former Occupation:
The Background of Central Bank Governors and its Effect
on Monetary Policy

This paper can be downloaded from http://www.uni-marburg.de/fb02/makro/forschung/magkspapers/index_html%28magks%29

Coordination: Bernd Hayo • Philipps-University Marburg
Faculty of Business Administration and Economics • Universitätsstraße 24, D-35032 Marburg
Tel: +49-6421-2823091, Fax: +49-6421-2823088, e-mail: hayo@wiwi.uni-marburg.de

Party Affiliation Rather than Former Occupation: The Background of Central Bank Governors and its Effect on Monetary Policy

Matthias Neuenkirch^{a,b} and Florian Neumeier^b

a RWTH Aachen Universityb Philipps-University Marburg

This version: 30 July 2013

Corresponding author:

Matthias Neuenkirch School of Business and Economics RWTH Aachen University D-52062 Aachen Germany

Tel.: +49 - (0)241 - 80 - 96203 Fax: +49 - (0)241 - 80 - 693931

Email: matthias.neuenkirch@rwth-aachen.de

^{*} Thanks to Matthias Uhl for his helpful comments on an earlier version of the paper. The usual disclaimer applies.

2

Party Affiliation Rather than Former Occupation:

The Background of Central Bank Governors and its Effect on Monetary Policy

Abstract

In this paper, we analyze the relationship between certain characteristics of incumbent

central bank governors and their interest-rate-setting behavior. We focus on (i)

occupational backgrounds, (ii) party affiliation, and (iii) experience in office and

estimate augmented Taylor rules for 20 OECD countries and the period 1974–2008. Our

findings are as follows. First, the tenures of central bank governors who are affiliated

with a political party are characterized by a relatively dovish monetary policy stance,

irrespective of their partisan ideology. Second, party affiliation appears to be more

important than occupational background, i.e., all bankers with(out) a party affiliation

behave very similarly to each regardless of their specific occupational background.

Third, party members react significantly less to inflation and more to output the longer

they stay in office.

Keywords: Central Bank Governors, Monetary Policy, Occupation, Partisanship, Taylor

Rules.

JEL: E31, E43, E52, E58.

1. Introduction

Until the 1990s, most of the world's central banks were headed by a single person (Blinder, 2004). Although there has been some movement toward the establishment of monetary policy committees since then, committees rarely act democratically when it comes to monetary policy (Blinder, 2007). Instead, one person typically has superior powers: the governor.¹ Claussen et al. (2012) show that central bank governors are almost never on the losing side when it comes to a vote by the monetary policy committee. Although it is doubtful that the governor has complete discretion in setting the interest rate, recent evidence suggests that governors appear to have de facto coercive power in the monetary policy decision process.²

3

Thus, it seems reasonable to assume that central bank governors have a notable influence on monetary policy-making. Indeed, Rogoff (1985) links the conduct of monetary policy to the preferences of central bank governors. Supporting this conjecture, at least indirectly, Kuttner and Posen (2010) find that financial markets are alert to who is heading a monetary policy committee as exchange rates and bond yields react to the announcement of a new central bank governor. Their findings suggest that it is not simply the inauguration of a new governor itself that is important; instead, it is *who* the governor is that actually matters for financial markets. To date, however, the role the identity of central bank governors plays in monetary policy decision-making has not been studied systematically. In this paper, we fill this gap and analyze whether the incumbent governor exerts significant influence on monetary policy stance. Our objects of analysis are 20 OECD countries and the period 1974–2008.

Our paper is related to a growing literature. Economists recently have begun to focus on the particular role *political leaders* play in countries' economic performance. Empirical evidence suggests that leaders do indeed matter: Economic growth rates (e.g., Besley et al., 2011) and constitutional and institutional frameworks (e.g., Dreher et al., 2009; Hayo and Voigt, 2013), as well as fiscal policies (e.g., Mikosch, 2009; Hayo and Neumeier, 2011, 2013) are found to vary significantly across the tenures of different heads of governments or to be connected to certain characteristics of the incumbent political leader.

¹ We use the term "governor" to refer to the central bank's head, even though the actual job title is "president" or "chairman."

² The unique role of the governor in monetary policy committees is studied intensively for the case of the Federal Open Market Committee (FOMC). For instance, Blinder (2007) concludes that Alan Greenspan was influential enough to almost always impose his view on the FOMC.

For our paper, the main question is: *Which characteristics are likely to influence a* central bank governor's monetary policy stance? Empirical evidence suggests that the interest rate preferences of monetary policy committee members are affected by occupational background, political party affiliation, and experience in office.³ Utilizing data on individual voting records from the FOMC and the Bank of England's Monetary Policy Committee, respectively, Havrilesky and Schweitzer (1990) and Havrilesky and Gildea (1991a,b), as well as Harris et al. (2011), find that having experience in government, in the central bank, in the industry sector, and in academia appears to be a source of variation in policy preferences. Göhlmann and Vaubel (2007) assess the determinants of central bankers' monetary policy stance by regressing inflation rates on the shares of different occupational groups in monetary policy committees. They conclude that former central bankers, civil servants, and private bankers are more inflation-averse than are politicians. Chappell et al. (1993) provide evidence that Democrat appointees at the FOMC have significantly different voting patterns than Republican appointees. Finally, Hansen and McMahon (2011) as well as Neuenkirch (2012) show that newly appointed central bankers are more hawkish at the beginning of their incumbency.

We follow this literature and focus on the career backgrounds of central bank governors and how these impact monetary policy stance. More precisely, we investigate whether (i) former occupation, (ii) party affiliation, and (iii) experience affect interest-rate-setting behavior. We estimate augmented Taylor rules (TR) that allow capturing the effect of these governor characteristics on standard reaction parameters for interest rate inertia, inflation, and the output gap.

Our findings suggest, first, that central bank governors who are affiliated with a political party prefer a relatively dovish monetary policy stance, irrespective of their partisan ideology. Second, specific career background hardly matters when it comes to monetary policy. Independent of career background, we observe an additional positive effect on output stabilization and a smaller reaction to inflation on the part of party members. Third, party members also react significantly less to inflation and more to output as they gain more experience in office. Finally, these strong results for party

³ Occupational background is also found to influence the fiscal policy stance of heads of governments (e.g., Dreher et al., 2009; Mikosch, 2009).

affiliation are primarily driven by countries/years with a low degree of central bank independence.

The remainder of the paper is organized as follows. Section 2 introduces the data and the empirical methodology. Section 3 presents the results. Section 4 concludes.

2. Data and Empirical Methodology

2.1 Empirical Specification and Data

Following the extant empirical literature, we hypothesize that a central banker's preferred monetary policy stance is affected by career background. The literature provides two arguments in support of this conjecture. First, certain political and occupational groups are believed to have particular policy preferences. Central bank governors may seek to satisfy the demands of the group they are associated with because they feel dedicated to its goals (e.g., Havrilesky and Schweitzer, 1990; Havrilesky and Gildea, 1991a,b; Harris et al., 2011). Second, people are believed to experience some sort of professional socialization or—perhaps more accurately—indoctrination during their working life that influences their values and attitudes (e.g., Dreher et al., 2009; Mikosch, 2009). Regardless of how it happens or why, it seems possible that a certain career background may translate into a policy bias.

Our aim is not only to examine *if* the conduct of monetary policy is affected by a central bank governor's career background, i.e., whether there is a statistically significant association between a governor's occupational and political history and interest rate setting; we also want to discover, if it turns out that career background does have an impact, *what* is actually *driving* potential differences. In the empirical literature, the conduct of monetary policy is typically evaluated by means of a Taylor rule (TR) as outlined in Equation (1) (Clarida et al., 1998):

$$(1) i_{i,t} = \rho i_{i,t-1} + (1-\rho) \left(\alpha_i + \beta_0 \pi_{i,t} + \beta_1 \tilde{y}_{i,t} \right) + \mu_{i,t}$$

The central bank rate in country i at time t ($i_{i,t}$) is explained by the central bank rate set in the previous period ($i_{i,t-1}$), capturing inertia in monetary policy making, the inflation rate ($\pi_{i,t}$), and the output gap ($\tilde{y}_{i,t}$). α_i represents the country-specific nominal interest rate (here corresponding to a country fixed effect) and $\mu_{i,t}$ the error term.

In a TR as set out in Equation (1), differences with respect to the preferred level of the central bank rate can be potentially driven by four factors: governors may differ with respect to their degree of inflation-aversion (β_0), their recession-aversion (β_1), their propensity toward interest rate smoothing (ρ), and their preferences regarding the equilibrium real interest rate. To discover what is driving differences in governors' preferred monetary policy stance, we allow all these parameters to depend on a governor's background, yielding Equation (2):

(2)
$$i_{i,t} = \rho i_{i,t-1} + (1-\rho) \left(\alpha_i + \beta_0 \pi_{i,t} + \beta_1 \tilde{y}_{i,t} \right)$$

 $+ \left[\rho^d i_{i,t-1} + (1-\rho^d) \left(\alpha^d + \beta_0^d \pi_{i,t} + \beta_1^d \tilde{y}_{i,t} \right) \right] d_{i,t}^j + \mu_{i,t}$

Here, $d_{i,t}^{j}$ is an indicator for the career background of the incumbent central bank governor in country i at time t. The superscript j refers to the specific background of interest. Altogether, we consider seven different background indicators, of which four are dummy variables for working experience in one of the following fields: academia, central banking, the private sector, and politics. We construct two further dummies, one for affiliation with a political party and one for affiliation with a leftist party. The final indicator variable measures the incumbent governor's tenure length, i.e., the number of years she currently has been in office. The choice of background indicators is primarily motivated by the extant literature. For each indicator considered, previous studies provide an argument for its connection to monetary policy stance (cf. Section 2.2). We employ only one of the indicator variables at a time, meaning that we estimate seven specifications of Equation (2). The inclusion of all seven background indicators in one nested specification yields imprecise estimates due to collinearity and makes statistical inference impossible, which is mainly due to the large number of interaction terms and the high correlations between them. Note that the single career categories are not disjoint as most central bank governors engaged in more than one occupation during their working life. For example, if a central bank governor has experience in academia and the private sector, both background indicator variables take the value 1.

In a dynamic panel data model as set out in Equation (2), the choice of estimation procedure is particularly important as the error term is by construction correlated with the lagged dependent variable. In such a case, a GMM-type estimator is typically recommended. Due to the structure of our panel, however, where the number of periods

(T=120) is much larger than the number of cross-sections (N=20), we rely on the LSDV estimator in our baseline specifications as simulation studies show that the bias of the LSDV estimator becomes negligible for large T (Nickell, 1981). On the contrary, GMM estimators typically suffer from poor finite sample properties if N is small (Judson and Owen, 1997; Roodman, 2009). However, we apply the GMM estimator as part of our robustness checks. We weight our estimates based on the assumption of contemporaneous correlation between the cross-sections in order to account for potential spill-over effects as central bank rates, inflation rates, and output gaps exhibit a notable degree of contemporaneous correlation across the sample countries.⁴

To estimate Equation (2), we employ quarterly data from 20 OECD countries. Our data cover the period Q1/1974–Q4/1998 for the euro-area countries and Q1/1974–Q4/2008 for all other countries. The sample countries are: Austria, Australia, Belgium, Canada, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States. We further include the euro area from Q1/1999 onward. Target rates are taken from the IMF. Inflation rates represent the growth rate in the consumer price index compared to the previous year's period. The output gap measure is based on the industrial production index.⁵ Data on both the consumer price index and the industrial production index are taken from the OECD.⁶

Our dataset also contains background information on the central bank governors of the countries listed above. Inauguration dates of central bank governors are taken from Dreher et al. (2008, 2010) or central bank websites. Background information about governors is collected from various sources; in most cases, we rely on information provided by central bank websites and the online edition of the Encyclopædia Britannica.⁷

⁴ Note that the inclusion of cross-sectional dependence in the weighting matrix can also be interpreted as a proxy for time fixed effects.

⁵ Trend industrial production is calculated using a Hodrick-Prescott (1997) filter with $\lambda = 1600$.

⁶ Since Orphanides (2001), real-time data for inflation and output growth are often used in TR estimations. We cannot use real-time data because of limited data availability for our sample period. For a similar reason, we employ a contemporaneous TR specification, whereas other scholars have employed forward-looking TR specifications (see, e.g., Sauer and Sturm, 2007). Again, the non-availability of inflation and output growth expectations for our sample period restricts our degrees of freedom in the econometric setup.

⁷ Detailed information sources for each central bank governor are available on request.

2.2 Hypotheses

Havrilesky and Schweitzer (1990) find for the United States that central bankers who have experience in politics and the private sector have an inflationary bias and favor "dovish" monetary policy. On the contrary, members with experience in academia and or with the central bank previously in another capacity prefer monetary tightness, i.e., a relatively "hawkish" monetary policy stance. In the context of a TR, more hawkish monetary policy implies a significantly larger reaction to the inflation rate (β_0^d) and, based on the idea of a tradeoff between output stabilization and inflation stabilization, a significantly smaller reaction to the output gap (β_1^d). Hawkish monetary policy should also be reflected in a significantly higher steady-state interest rate (α^d).

In the case of former academics, there is literature (e.g., Spencer, 2006) arguing that members of this group should prefer rather dovish monetary policy. The author concludes that the majority of academics in their sample follows Keynesian ideals and, therefore, prefers output stabilization over inflation stabilization. We keep this idea in mind but stick to the findings of Havrilesky and Schweitzer (1990) and, to put it into the context of Spencer (2006), suspect that monetarist economists dominate the group of academics.

The seminal paper by Rogoff (1985) provides a clue as to why former central bank staff members should be more conservative than the sample average. Since, according to Rogoff, a central bank governor should be more conservative than society as a whole, the central bank might primarily attract staff who are monetary conservatives so as to support the governor. Alternatively, former staff members might feel more bound to the central bank's inflation objective since they have spent a considerable amount of their working life in the bank and, therefore, have internalized this inflation-averse culture.

In our sample, all governors who were formerly employed in the private sector were managers and/or entrepreneurs. Thus, we would expect them to pursue a demand-side-oriented monetary policy, i.e., to be inflation-prone and recession-averse.

Finally, former politicians should also be more recession-averse than the average governor. Inflation may be tolerated, since, based on the idea of a (short run) tradeoff between inflation and unemployment, there can be a positive employment effect. This is also in line with empirical studies for the United States where Havrilesky and Gildea (1991b) and Chappell et al. (1995) find that a greater number of years in government significantly reduces the desired target rate. Ehrmann and Fratzscher (2011) come to a

similar conclusion: politicians express on average a preference for lower interest rates than do central bankers.

Based on these considerations, we formulate our hypothesis concerning the impact of former occupation on interest rate setting.

H1: Governors with experience in academia or a central bank prefer more hawkish monetary policy than the sample average, whereas governors formerly engaged in politics or the private sector are more in favor of dovish monetary policy.

Across all groups, we find a considerable share of governors who are or have been affiliated with a political party. The governor of the central bank is usually appointed by the government or by parliament. A political party tends to nominate committee members with political preferences similar to its own (Havrilesky and Gildea, 1992; Vaubel, 1997; Berger and Woitek, 1997), and these preference are particularly likely to be aligned if the nominee is a member of the nominating party. It is therefore conceivable that such governors follow their specific party line and may even attempt to manipulate the economy to increase the election prospects of their party (Belke and Potrafke, 2012). Accordingly, the second hypothesis linking the interest rate reaction function to political party affiliation is as follows:

H2: Governors who are or have been affiliated with a particular political party prefer more dovish monetary policy than the sample average.

In the empirical analysis below, we first employ a dummy variable that captures membership in a political party in general. In addition, we test if the partisan approach can be extended to the interest-rate-setting behavior of central bank governors. Leftist parties appeal more to the labor base and promote expansionary policies (Hibbs, 1977). In the context of a TR, this would imply (in absolute terms) larger interaction terms than for the dummy variable capturing party affiliation in general. Consequently, a second set of estimations is based on interaction with a dummy variable for membership in a leftist party.⁸

⁸ We follow the definition applied in the Database of Political Institutions to identify leftist political parties (cf. Beck et al., 2001).

Our final indicator variable measures the incumbent governor's tenure length, i.e., the number of years the governor has been in office. Based on the "weak until proven strong" hypothesis (see, e.g., Kuttner and Posen, 2010), the public initially perceives central bankers as dovish. As a consequence, to avoid an increase in inflation expectations, newly appointed governors need to convince agents of their willingness to fight inflation immediately after taking office. After having established a reputation for being inflation-averse and thus warding off an increase in inflation expectations, the central banker can switch to the actual preferred level of inflation-aversion, which should be lower than initially signaled. Hansen and McMahon (2011) and Neuenkirch (2012) observe such behavior for the Bank of England and 15 OECD countries, respectively. Therefore, our final hypothesis is as follows:

H3: Governors become more dovish during their tenure.

Table 1 summarizes our hypotheses and shows the respective expected signs of interaction terms for all seven governor characteristics.

Table 1: Summary of Hypotheses (Expected Signs of Interaction Terms)

		* Constant Term (α^d)	* Inflation (β_0^d)	* Output Gap (β_1^d)
Academia	Hawkish	+	+	-
Central Bank	Hawkish	+	+	-
Politics	Dovish	-	_	+
Private Sector	Dovish	_	_	+
Yrs in Office	Dovish	-	_	+
Party Affiliation	Dovish	-	_	+
Left Party	Dovish	-	-	+

3. Empirical Results

3.1 Baseline Results

We commence our analysis by estimating Equation (2). The results for our baseline specifications are presented in Tables 2a and 2b. Table 2a contains the results for the career background indicators; Table 2b shows the effects of experience and affiliation with a (leftist) political party. Both tables contain the estimates of the long-run coefficients α , β_0 , β_1 , α^d , β_0^d , and β_1^d (cf. Equation (2)).

Table 2a: Results for Different Occupations

	Academia	CB Career	Polit. Career	Priv. Sector
IR Smoothing	0.925 **	0.921 **	0.911 **	0.910 **
Constant Term	3.744 **	3.757 **	3.061 **	3.120 **
Inflation	0.665 **	0.602 **	0.740 **	0.658 **
Output Gap	0.522 **	0.816 **	0.607 **	0.445 **
				_
* IR Smoothing	-0.016	0.008	0.017	0.034 *
* Constant Term	-0.305	-1.472	-0.215	-0.415
* Inflation	0.132	0.126	-0.255	-0.373 *
* Output Gap	0.283 *	-0.460 **	-0.215	0.187
R ²	0.965	0.965	0.965	0.965
S.E.	1.305	1.308	1.307	1.305

Notes: Number of observations: 2,088. Panel generalized least squares with a White (1980) cross-section weighting matrix is used as the estimation technique. The models include country fixed effects (not shown). Reported coefficients are estimates for the long-run coefficients for all governors and the corresponding long-run changes for governors with a background as indicated in the top line. Panel-robust standard errors are reported. **/* indicate significance at the 1%/5% level, respectively.

Table 2b: Results for Experience and Party Affiliation

	Yrs in Office	Party	Left Party
IR Smoothing	0.919 **	0.905 **	0.919 **
Constant Term	2.569 **	3.683 **	3.156 **
Inflation	0.816 **	0.652 **	0.719 **
Output Gap	0.329 **	0.364 **	0.513 **
* IR Smoothing	0.001	0.046 **	0.030
* Constant Term	0.140	-3.655 **	-0.607
* Inflation	-0.043 **	-0.572 *	-0.615 *
* Output Gap	0.051 **	0.603 **	0.316
R ²	0.965	0.965	0.965
S.E.	1.305	1.282	1.306

Notes: Number of observations: 2,088. Panel generalized least squares with a White (1980) cross-section weighting matrix is used as the estimation technique. The models include country fixed effects (not shown). Reported coefficients are estimates for the long-run coefficients for all governors and the corresponding long-run changes for governors with the characteristics indicated in the top line. Panel-robust standard errors are reported. **/* indicate significance at the 1%/5% level, respectively.

The results indicate that the target rate is highly persistent as the interest rate smoothing parameter $\hat{\rho}$ varies between 0.905 and 0.925 depending on the specification. The estimates of the linear effects reveal that the central banks follow a TR as the coefficients of the output gap and the inflation rate are always positive and significant. The coefficient of the output gap varies between 0.329 and 0.816 and thus is reasonably

close to the value of 0.5 suggested by Taylor (1993). However, we find that the Taylor principle is not met, as the coefficient of the inflation rate is always smaller than 1. Nevertheless, this should not be of much concern since it is well known that monetary policy was "passive" during the 1970s in many Western economies (Lubik and Schorfheide, 2004), leading to such estimates for the period considered in this paper.

Regarding central bank governors' occupational backgrounds (Table 2a), only a few interaction effects exhibit individual significance. Governors with working experience in the private sector appear to react significantly less to inflation. The effect of private sector experience on output stabilization is positive, yet not significant. This finding suggests that central bank governors with an entrepreneurial background do indeed pursue demand-side-oriented monetary policy. On the contrary, former central bank staff members put a significantly lower emphasis on output stabilization. The results from the first two specifications of Equation (2) are in line with our conjectures and appear to be highly economically relevant as they are of notable size. In the long run, the hike in the target rate after a 1 percentage point (pp) increase in the output gap is roughly 0.5 pp lower during the tenures of former central bank staff members. The longrun difference between governors with private sector experience and the average with respect to inflation-sensitivity is about 0.4 pp. Invalidating our initial prior as stated in H1, we find that central bank governors with experience in academia react significantly more strongly to business cycle fluctuations. Arguably, the group of academics is dominated by Keynesian economists who tend to pursue a demand-side-oriented monetary policy (Spencer, 2006).

With respect to the effects of experience and party affiliation, we obtain several interesting results (Table 2b). First, our findings suggest that time spent in office exerts a notable impact on monetary policy stance. The longer a central bank governor stays in office, the less sensitive the governor is to inflation, but the more pronounced his or her reaction to the output gap. Every additional year in office increases sensitivity toward the output gap by 0.05 pp and decreases sensitivity toward inflation by 0.04 pp. This finding is well in line with Neuenkirch (2012), who argues that governors seek to establish a hawkish reputation at the beginning of their incumbencies and also supports the "weak until proven strong" hypothesis (e.g., Kuttner and Posen, 2010). Second, central bank governors who are affiliated with a political party prefer a significantly lower steady-state interest rate, react much more sensitively to business cycle fluctuations, and react far less strongly to inflation. These effects appear to be

substantial: with respect to output-sensitivity, the long-run effect for (former) party members is almost three times as large as for the average (1.0 pp as compared to 0.36 pp). The reaction to the inflation rate is only one-sixth of the effect for the "average" central bank governor, i.e., 0.1 pp vs. 0.65 pp. Third, the estimates we obtain for governors who are affiliated with a leftist party are of comparable size, indicating that the association between party affiliation and monetary policy is not driven by partisan ideology (see also Belke and Potrafke, 2012, Table 7).9

To check the robustness of our results and to glean further insights, we modify our baseline specifications in several ways. First, we exclude all country/year observations in which a hard exchange rate peg, as defined by Ilzetzki et al. (2010), was in force, i.e., all observations with an exchange rate classification of 4 or lower. During those periods, countries either have (i) no separate legal tender, (ii) a pre-announced peg or currency board arrangement, (iii) a pre-announced horizontal band that is narrower than or equal to +/-2%, or (iv) a de facto peg. The results are presented in Tables A1a and A1b of the Appendix. The only noticeable change is that the p-value of the coefficient of academics' reaction to output in Table A1a now slightly exceeds the 5% threshold (p-value: 0.07).

Finally, we test whether our results are affected by the estimation method by employing the Arellano and Bond (1991) GMM estimator instead of LSDV. The number of instruments (lags 2–4 of the lagged endogenous variable) is based on Roodman (2009)'s proposal. GMM weights are based on the assumption of a contemporaneous correlation between the cross-sections. Our results remain almost unaffected and are thus not reported here. ¹⁰

3.2 What is More Important: Party (Non-)Membership or Occupational Background?

Since career backgrounds are not disjoint and only one background indicator is considered in each specification, the estimates of the interaction terms do not have a ceteris paribus interpretation, i.e., potential correlations between background indicators could affect our estimates. In case of the FOMC, for example, Havrilesky and Gildea (1991a,b) find that the effect of party affiliation on interest rate preferences is mediated by members' career backgrounds. Some occupational groups are more prevalent within

⁹ This conclusion is based on a comparison of the aggregate effects, i.e., the sums of the coefficients of the linear and the interaction terms, and does not hold for the steady-state interest rate.

¹⁰ All omitted results are available on request.

political parties, and once the occupational background is controlled for, party membership exerts a negligible influence. As (i) we obtain the largest effects for (former) party members and (ii) party membership is positively correlated with all other indicators (except for central bank experience), testing whether the effects of occupational background and experience depend on (non-)party affiliation could be insightful. For this purpose, we evaluate the impact of different career backgrounds on the interest rate setting in two subgroups of governors by estimating separate coefficients for governors with vs. without a party affiliation.¹¹ The results are presented in Table 3a.¹²

Our estimates indicate that within both subgroups, specific career background hardly matters. Governors without party affiliation react significantly less sensitively to the output gap, irrespective of the occupation they held prior to their incumbency (exception: academia).¹³ Also of interest is that governors who previously pursued a political career but do not have an explicit party affiliation (i.e., technocrats) prefer a higher equilibrium interest rate.

On the contrary, governors who are affiliated with a political party behave exactly in accordance with our previous results for party affiliation in Table 2b: independent of their career background, we observe an additional positive effect on output stabilization and less of a reaction to inflation.¹⁴ Altogether, these findings suggest that (non-)party members prefer a more dovish (hawkish) monetary policy, irrespective of former occupation. Thus, it is party affiliation, rather than former occupation, that matters with respect to central bank governors' preferred monetary stance.

 $^{^{11}}$ We define two dummy variables; the first takes the value 1 for party members, the second takes that value of 1 for non-party members. Then, we consecutively interact both dummies with the already existing interaction terms.

¹² Note that we have at least 200 observations per category.

 $^{^{13}}$ The p-value for the private sector coefficient on output is roughly 0.09 and thus significant at the 10% level.

¹⁴ The p-value of the effect of private sector experience on the equilibrium nominal interest rate is about 0.07 in this subgroup.

Table 3a: Results for Different Occupations—Split According to Party Affiliation

No Party Affiliation	Academia	CB Career	Polit. Career	Priv. Sector
IR Smoothing	0.925 **	0.926 **	0.935 **	0.919 **
Constant Term	3.679 **	3.622 **	3.076 **	3.206 **
Inflation	0.673 **	0.648 **	0.759 **	0.669 **
Output Gap	0.608 **	0.838 **	0.888 **	0.597 **
* IR Smoothing	-0.017	-0.007	-0.038	0.015
* Constant Term	-0.442	-0.069	2.193 *	1.284
* Inflation	0.084	0.119	0.089	-0.203
* Output Gap	-0.107	-0.451 **	-0.429 **	-0.218
\mathbb{R}^2	0.965	0.965	0.965	0.965
S.E.	1.304	1.309	1.300	1.307
Party Affiliation	Academia	CB Career	Polit. Career	Priv. Sector
IR Smoothing	0.924 **	0.922 **	0.908 **	0.918 **
Constant Term	3.463 **	3.461 **	3.576 **	3.289 **
Inflation	0.667 **	0.660 **	0.656 **	0.685 **
Output Gap	0.512 **	0.554 **	0.397 **	0.466 **
* IR Smoothing	0.012	0.020	0.046 **	0.036 *
* Constant Term	-0.674	-2.028	-3.140	-1.847
* Inflation	-0.058	-0.034	-0.583 *	-0.516
* Output Gap	0.708 **	0.167	0.586 *	0.635 **

Notes: Number of observations: 2,088. Panel generalized least squares with a White (1980) cross-section weighting matrix is used as the estimation technique. The models include country fixed effects (not shown). Reported coefficients are estimates for the long-run coefficients for all governors and the corresponding long-run changes for governors with a background indicated in the top line. Panel-robust standard errors are reported. **/* indicate significance at the 1%/5% level, respectively.

0.965

1.307

0.965

1.302

0.965

1.306

0.965

1.308

We also evaluated the impact of experience for both subgroups. The results are set out in Table 3b. The coefficients of the linear effects indicate that governors who are affiliated with a political party react more to inflation and less to the output gap. However, when it comes to experience effects, the picture changes. Party members react significantly less to inflation and more to output with increasing experience in office, whereas the opposite is found for those not affiliated to a particular party.¹⁵

 R^2

S.E.

¹⁵ However, neither coefficient is significant at the 5% level.

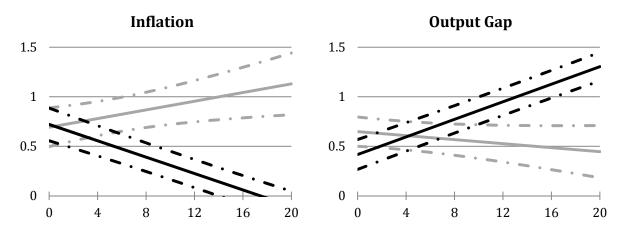
Table 3b: Results for Experience—Split According to Party Affiliation

	No Party Affiliat	ion	Party Affiliation	n
	Yrs in Office			
IR Smoothing	0.929	**	0.914	**
Constant Term	3.222	**	3.281	**
Inflation	0.692	**	0.721	**
Output Gap	0.648	**	0.417	**
* IR Smoothing	-0.002		0.003	
* Constant Term	0.166		-0.024	
* Inflation	0.022		-0.041	**
* Output Gap	-0.010		0.044	**
R ²	0.965		0.965	
S.E.	1.308		1.303	

Notes: Number of observations: 2,088. Panel generalized least squares with a White (1980) cross-section weighting matrix is used as the estimation technique. The models include country fixed effects (not shown). Reported coefficients are estimates for the long-run coefficients for all governors and the corresponding long-run changes for governors' experience split according to whether governors are affiliated with a particular party. Panel-robust standard errors are reported. **/* indicate significance at the 1%/5% level, respectively.

Figure 1 shows the expected long-run reaction of party members (black line) and non-party members (gray line) to a 1 pp increase in inflation (left-hand side) and the output gap (right-hand side) depending on number of quarters in office (x-axis). The dashed lines represent 95% confidence bands. The reaction to inflation is statistically equal for both groups during the first three-quarters of tenure. However, afterward, the reaction is statistically larger for non-party members than for their counterparts. The opposite is found for the output gap, where after eight quarters, party members react more strongly than non-party members. These findings are in accordance with Barro (1986), who shows that it is optimal for doves (i.e., party members) to masquerade as hawks for some time after taking office.

Figure 1: Experience and Expected Reaction to Inflation and the Output Gap for (Non-)
Party Members



Note: Solid lines represent the expected long-run reaction of party members (black line) and non-party members (gray line) to a 1 pp increase in inflation (left-hand side) and the output gap (right-hand side) (y-axis). The dashed lines correspond to the upper and lower bounds of the 95% confidence band. Figures on the x-axis denote experience in office (in quarters).

A final set of estimations links interest-rate-setting behavior to affiliation with a particular party *and* the degree of central bank independence. In a different context, Belke and Potrafke (2012) find that the degree of central bank independence matters when it comes to partisan influence on monetary policy. Consequently, we estimate separate coefficients for country/year-observations characterized by high vs. low central bank independence (CBI). We follow Klomp and de Haan's (2009) definition and consider a central bank as highly independent if the index for economic autonomy (i.e., the central bank is not obliged to finance government deficit and/or the central bank's authority to select its own instruments; see also Grilli et al., 1991) is larger than 0.5. Note that consideration of this index reduces our sample period, as the index is not available prior to 1980 nor after 2005. Table 4 sets out the results.

Previous results are primarily driven by low CBI countries/years since there is only one significant interaction term for high CBI countries/years: governors affiliated with a (left-wing) party put more weight on output stabilization than the average governor in a high CBI country/year. Turning to the low CBI regimes, (left-wing) party members are much more dovish than the subsample average. All interaction terms (exception: equilibrium interest rate in case of left-wing party members) show the expected sign. Finally, confirming the results from Table 2b, we find no evidence for a specific partisan ideology effect since the interaction terms for party affiliation in general and membership in a leftist party in particular are statistically indistinguishable.

Table 4: Results Party Affiliation—High vs. Low CBI Regimes

	High CBI		Low CBI		
	Party	Left Party	Party	Left Party	
IR Smoothing	0.910 **	0.915 **	0.839 **	0.880 **	
Constant Term	3.040 **	2.656 **	5.786 **	5.686 **	
Inflation	0.625 **	0.700 **	0.709 **	0.673 **	
Output Gap	0.443 **	0.596 **	0.038	0.179 **	
* IR Smoothing	0.002	-0.066	0.083 **	0.059 *	
* Constant Term	-1.293	2.076	-4.349 *	-2.007	
* Inflation	0.462	0.357	-1.030 **	-1.107 **	
* Output Gap	0.476 **	0.333 *	0.603 **	0.625 *	
R ²	0.968	0.968	0.973	0.971	
S.E.	0.638	0.637	1.562	1.583	

Notes: Number of observations: 905 (left panel) and 630 (right panel). Panel generalized least squares with a White (1980) cross-section weighting matrix is used as the estimation technique. The models include country fixed effects (not shown). Reported coefficients are estimates for the long-run coefficients for all governors and the corresponding long-run changes for governors with a characteristic indicated in the top line. Panel-robust standard errors are reported. **/* indicate significance at the 1%/5% level, respectively. CBI = central bank independence.

4. Conclusions

In this paper, we investigate whether central bank governors exert an influence on monetary policy. More precisely, we analyze the relationship between certain characteristics of incumbent central bank governors (i.e., (i) former occupation, (ii) party affiliation, and (iii) experience) and their interest-rate-setting behavior. We estimate Taylor rules for 20 OECD countries and the period 1974–2008 and, in addition to standard parameters for interest rate inertia, inflation, and the output gap, we include interaction terms for governor characteristics. Our findings are as follows.

First, central bank governors affiliated with a political party generally prefer a relatively dovish monetary policy stance. The estimates we obtain for governors affiliated with a leftist party are of comparable size, indicating that the association between party affiliation and monetary policy is not driven by partisan ideology.

Second, when testing whether the effect of governors' former occupation (academia, central banking, the private sector, and politics) varies between party and non-party members, we find that specific career background hardly matters for the conduct of monetary policy. Evidently, governors behave as (non-)party members and not as representatives of their former occupational groups. Independently of their

career background, we observe an additional positive effect on output stabilization and a smaller reaction to inflation.

Third, party affiliation is also the dominant driver when it comes to the effect of experience on monetary policy stance. Party members react significantly less to inflation and more strongly to output the longer they are in office, whereas the opposite is found for those not affiliated with a political party.

Finally, the strong results for party affiliation are primarily driven by countries/years with a low degree of central bank independence. In these years, governors affiliated with a party put much more (less) weight on output (inflation) stabilization than the average governor in low CBI regimes. Furthermore, when disentangling low and high CBI regimes, we again find no partisan ideology effect on monetary policy.

Our findings contribute to a growing branch in the economics literature showing that political leaders can have a significant influence on their countries' economic policies. In particular, party members implement a more dovish monetary policy than the average governor. However, since this effect is less pronounced in countries with high CBI, the evidence provided in this paper suggests that the independence of central banks is vital for the efficacy of monetary policy.

References

- Arellano, M. and S. Bond (1991), Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations, *Review of Economic Studies* 58, 277–297.
- Barro, R. J. (1986), Reputation in a Model of Monetary Policy with Incomplete Information, *Journal of Monetary Economics* 17, 3–20.
- Beck, T., G. Clarke, A. Groff, P. Keefer, and P. Walsh (2001), New Tools in Comparative Political Economy: The Database of Political Institutions, *World Bank Economic Review* 15, 165–176.
- Belke, A. and N. Potrafke (2012), Does Government Ideology Matter in Monetary Policy? A Panel Data Analysis for OECD Countries, *Journal of International Money and Finance* 31, 1126–1139.
- Berger, H. and U. Woitek (1997), How Opportunistic are Partisan German Central Bankers? Evidence on the Vaubel Hypothesis, *European Journal of Political Economy* 13, 503–516.
- Besley, T., J. G. Montalvo, and M. Reynal-Querol (2011), Do Educated Leaders Matter? *Economic Journal* 121, 205–227.
- Blinder, A. S. (2004), *The Quiet Revolution: Central Banking Goes Modern*, New Haven: Yale University Press.
- Blinder, A. S. (2007), Monetary Policy by Committee: Why and How? *European Journal of Political Economy* 23, 106–123.
- Chappell, H. W., T. M. Havrilesky, and R. R. McGregor (1993), Partisan Monetary Policies: Presidential Influence Through the Power of Appointment, *Quarterly Journal of Economics* 108, 185–218.
- Chappell, H. W., T. M. Havrilesky, and R. R. McGregor (1995), Policymakers, Institutions, and Central Bank Decisions, *Journal of Economics and Business* 47, 113–136.
- Clarida, R., J. Galí, and M. Gertler (1998), Monetary Policy Rules in Practice: Some International Evidence, *European Economic Review* 42, 1033–1067.
- Claussen, C. A., E. Matsen, O. Roisland, and R. Torvik (2012), Overconfidence, Monetary Policy Committees and Chairman Dominance, *Journal of Economic Behavior and Organization* 81, 699–711.
- Dreher, A., M. J. Lamla, S. M. Lein, and F. Somogyi (2009), The Impact of Political Leaders' Profession and Education on Reforms, *Journal of Comparative Economics* 37, 169–193.
- Dreher, A., J.-E. Sturm, and J. de Haan (2008), Does High Inflation Cause Central Bankers to Lose Their Job? Evidence Based on a New Data Set, *European Journal of Political Economy* 24, 778–787.

- Dreher, A., J.-E. Sturm, and J. de Haan (2010), When is a Central Bank Governor Replaced? Evidence Based on a New Data Set, *Journal of Macroeconomics* 32, 766–781.
- Ehrmann, M. and M. Fratzscher (2011), Politics and Monetary Policy, *Review of Economics and Statistics* 93, 941–960.
- Göhlmann, S. and R. Vaubel (2007), The Educational and Occupational Background of Central Bankers and its Effect on Inflation: An Empirical Analysis, *European Economic Review* 51, 925–941.
- Grilli, V., D. Masciandaro, and G. Tabellini (1991), Political and Monetary Institutions and Public Financial Policies in the Industrial Countries, *Economic Policy* 13, 341–392.
- Hansen, S. and M. McMahon (2011), First Impressions Matter: Signalling as a Source of Policy Dynamics, *CEP Discussion Papers* No. 1074.
- Harris, M., P. Levine, and C. Spencer (2011), A Decade of Dissent: Explaining the Dissent Voting Behavior of Bank of England MPC Members, *Public Choice* 146, 413–442.
- Havrilesky, T. and J. A. Gildea (1991a), The Policy Preferences of FOMC Members as Revealed by Dissenting Votes: Comment, *Journal of Money, Credit and Banking* 23, 130–138.
- Havrilesky, T. and J. A. Gildea (1991b), Screening FOMC Members for Their Biases and Dependability, *Economics and Politics* 3, 139–149.
- Havrilesky, T. and J. A. Gildea (1992), Reliable and Unreliable Partisan Appointments to the Board of Governors, *Public Choice* 73, 397–417.
- Havrilesky, T., and R. Schweitzer (1990), A Theory of FOMC Dissent Voting with Evidence from the Time Series, in: T. Mayer (ed.), *The Political Economy of American Monetary Policy*, Cambridge: Cambridge University Press.
- Hayo, B. and F. Neumeier (2011), Political Leaders' Socioeconomic Background and Fiscal Performance in Germany, *MAGKS Joint Discussion Paper Series* No. 41–2011.
- Hayo, B. and F. Neumeier (2013), Political Leaders' Socioeconomic Background and Public Budget Deficits: Evidence from OECD Countries, *MAGKS Joint Discussion Paper Series* No. 08-2013.
- Hayo, B. and S. Voigt (2013), Endogenous Constitutions: Politics and Politicians Matter, Economic Outcomes Don't, *Journal of Economic Behavior and Organization* 88, 47–61.
- Hibbs, D. A. (1977), Political Parties and Macroeconomic Policy, *American Political Science Review* 71, 1467–1487.
- Ilzetzki, E., C. M. Reinhart, and K. S. Rogoff (2010), Exchange Rate Arrangements Entering the 21st Century: Which Anchor Will Hold? *mimeo*.
- Klomp, J. and J. de Haan (2009), Central Bank Independence and Financial Instability, *Journal of Financial Stability* 5, 321–338.

- Judson, R. A. and A. L. Owen (1997), Estimating Dynamic Panel Data Models: A Practical Guide for Macroeconomists, *Finance and Economics Discussion Series*, Board of Governors of the Federal Reserve System.
- Kuttner, K. N. and A. S. Posen (2010), Do Markets Care Who Chairs the Central Bank? *Journal of Money, Credit and Banking* 42, 347–371.
- Lubik, T. A. and F. Schorfheide (2004), Testing for Indeterminacy: An Application to U.S. Monetary Policy, *American Economic Review* 94, 190–217.
- Mikosch, H. F. (2009), Individuals vs. Institutions. The Impact of Political Leaders' Education and Profession on Public Deficits, ETH Zurich, *mimeo*.
- Neuenkirch, M. (2012), Establishing a Hawkish Reputation: Interest Rate Setting by Newly Appointed Central Bank Governors, *MAGKS Discussion Paper* No. 46-2012.
- Nickell, S. (1981), Biases in Dynamic Models with Fixed Effects, *Econometrica* 49, 1417–1426.
- Orphanides, A. (2001), Monetary Policy Rules Based on Real-Time Data, *American Economic Review* 91, 964–985.
- Rogoff, K. (1985), The Optimal Degree of Commitment to an Intermediate Monetary Target, *Quarterly Journal of Economics* 100, 1169–1189.
- Roodman, D. (2009), A Note on the Theme of Too Many Instruments, *Oxford Bulletin of Economics and Statistics* 71, 135–157.
- Sauer, S. and J.-E. Sturm (2007), Using Taylor Rules to Understand European Central Bank Monetary Policy, *German Economic Review* 8, 375–398.
- Spencer, C. (2006), The Dissent Voting Behaviour of Bank of England MPC Members, *University of Surrey Discussion Papers in Economics* 03/06.
- Taylor, J. B. (1993), Discretion Versus Policy Rules in Practice, *Carnegie-Rochester Conference Series on Public Policy* 39, 195–214.
- Vaubel, R., (1997), The Bureaucratic and Partisan Behavior of Independent Central Banks: German and International Evidence, *European Journal of Political Economy* 13, 201–224.
- White, H. (1980), A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity, *Econometrica* 48, 817–838.

Appendix

Table A1a: Results for Different Occupations—Excluding Hard Pegs

	Academia	CB Career	Polit. Career	Priv. Sector
IR Smoothing	0.918 **	0.914 **	0.912 **	0.903 **
Constant Term	3.669 **	3.047 **	3.511 **	3.155 **
Inflation	0.690 **	0.658 **	0.706 **	0.714 **
Output Gap	0.514 **	0.807 **	0.568 **	0.405 **
* IR Smoothing	-0.011	0.007	0.008	0.033 *
* Constant Term	0.248	0.363	-0.213	-0.214
* Inflation	0.076	0.081	-0.086	-0.414 *
* Output Gap	0.228	-0.486 **	-0.100	0.190
R ²	0.965	0.966	0.965	0.965
S.E.	1.433	1.434	1.434	1.431

Notes: Number of observations: 1,590. Panel generalized least squares with a White (1980) cross-section weighting matrix is used as the estimation technique. The models include country fixed effects (not shown). Reported coefficients are estimates for the long-run coefficients for all governors and the corresponding long-run changes for governors with a background indicated in the top line. Panel-robust standard errors are reported. **/* indicate significance at the 1%/5% level, respectively.

Table A1b: Results for Experience and Party Affiliation—Excluding Hard Pegs

	Yrs in Office	Party	Left Party
IR Smoothing	0.902 **	0.899 **	0.909 **
Constant Term	2.701 **	3.783 **	3.291 **
Inflation	0.840 **	0.708 **	0.741 **
Output Gap	0.288 **	0.324 **	0.447 **
* IR Smoothing	0.002	0.036 *	0.037
* Constant Term	0.091	-2.403 *	-1.282
* Inflation	-0.052 **	-0.471 *	-0.666 *
* Output Gap	0.038 **	0.436 **	0.344
R ²	0.966	0.966	0.966
S.E.	1.429	1.428	1.432

Notes: Number of observations: 1,590. Panel generalized least squares with a White (1980) cross-section weighting matrix is used as the estimation technique. The models include country fixed effects (not shown). Reported coefficients are estimates for the long-run coefficients for all governors and the corresponding long-run changes for governors with a characteristic indicated in the top line. Panel-robust standard errors are reported. **/* indicate significance at the 1%/5% level, respectively.