Who Decides? Coalition Governance and Ministerial Discretion*

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ABSTRACT

Who decides policy in a coalition government? Specifically, does the party occupying a ministerial portfolio control policy in that jurisdiction? This question is central to the study of coalitions but is rarely tested because of the problems in identifying and measuring policy. This paper sidesteps these obstacles using an empirical strategy based on rational partisan theory. The theory establishes expectations of changes in monetary policy and macro-economic outcomes following changes in policy-maker. By testing for partisan effects following portfolio changes we can infer which changes are relevant and to what degree the Minister of Finance is the autonomous monetary policy-maker. The application of the test, looking at 16 parliamentary democracies in a period of

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volatile monetary policy and flexible exchange rates, indicates that policy-making is not consistent with full ministerial discretion. Rather, policy appears more responsive to changes in cabinet leadership and to the preferences of cabinet leaders.

As Diermeier (2006) notes, the 1990s were a transformative period for coalition studies, with breakthroughs in conceptualizing cabinet formation (Baron, 1991; Laver and Shepsle, 1994). Observers have also noted, however, that subsequent analysis has focused on cabinet formation, duration, and termination. The insights gained thus relate to the demographics of coalitions, but leave policy coordination among coalition partners obscure. Strøm et al. (2008, 33) say of recent comparative analysis that it has “barely scratched the surface of the issue of coalition governance.” We still do not fully understand, in other words, how the preferences of cabinet members are aggregated to produce government policy, the key quantity for voter welfare.

Expectations for coalition policy-making are, however, informed by competing theories derived from the initial contributions to the outburst of work on coalitions. The first and most prominent theory — termed “ministerial discretion” — rejects the possibility that cabinet members from one party can ever monitor or control the actions of ministers from another (Laver and Shepsle, 1996). Coalition contracts, if they exist, are moot. Instead, the parties negotiating the coalition treat policy outcomes in each dimension as following exactly the preferences of the party holding the relevant ministry.¹ Thus, the assumption of ministerial discretion would imply that coalition policy-making is equivalent to delegation to separate, autonomous ministers (and their parties).

Potential counter-theory derives from a set of bargaining models within noncooperative game theory. Almost all of these models take as their starting point a sequential bargaining process, as in the canonical Baron-Ferejohn (1989) framework. Most also assume benefits to the proposing party (or in the case of parliamentary procedures, the formateur). Payoffs to other coalition members are linked to their continuation value in the sequential bargaining process.

¹ As Strøm et al. (2008, 33) indicate that coalition governance is not the focus of Laver and Shepsle’s work. Rather, “Coalition governance concerns enter their theory in a series of strong assumptions that allow Laver and Shepsle to explain coalition formation (and stability).”
These noncooperative models of coalition formation assume that a coalition contract exists, although it may not be publicly observed, and that the contract is separate from portfolio allocation. Policies will change when this contract changes, generally when new governments form, independent of changes to the particular minister with responsibility for executing policy. Conversely, until and unless the coalition contract changes, re-assignment of particular ministerial portfolios to different parties will have no appreciable impact on policy.

Most, if not all, of the existing work weighing different accounts of coalition policy-making has focused on potential mechanisms by which parties in a coalition can monitor the policy choices of other coalition members and penalize them for defection. Thies (2001) analyzes the role of junior ministers as “watchdogs” while Martin and Vanberg (2004, 2005) show how the threat of parliamentary scrutiny and delay can discourage policy deviation by partners. The existence of monitoring and control mechanisms, however, does not itself prove the case against ministerial discretion. While the evidence supports the case for shared policy control, the tests are vulnerable to the charge that the observed mechanisms exist for reasons incidental to coalition governance. Further, the mechanisms may act to control policy deviations, but imperfectly, so that ministerial discretion co-exists with active attempts to contain it.

In essence, the problem with the study of mechanisms as a test of ministerial discretion is that they offer indirect evidence. They speak to the ability of coalition partners to monitor and control, but they cannot directly test whether such mechanisms affect final policy outputs. Indeed, the lack of scholarly attention to coalition governance is connected to the opacity of the policy-making process. Cabinet negotiations and party preferences are not directly observed. By default, scholars are left to infer the influence of different parties from the collective record of cabinet decisions.

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2 Martin and Stevenson (2010) find that the likelihood of an incumbent cabinet re-forming depends on past cooperation, suggesting that coalition contracts could also be sustained by the threat of future defection. Moury (2012) and Timmermans (2006) highlight informal mechanisms for policing the bargain.

3 Empirical analysis by Timmermans (2003, 2006) which shows convergence between written policy contracts and policy outcomes is compatible with ministerial discretion if the original policy contract simply lists the policy preferences of each party for the jurisdictions they control.

4 For qualitative accounts of policy-making within coalitions, see Blondel and Müller-Rommel (1993) and Moury (2012).
Efforts to test the theory of ministerial discretion more directly in quantitative data, however, swiftly encounter a significant challenge. This is the challenge of operationalizing and measuring policy. Determining whether policy has moved, or not, when the party controlling the relevant ministry has changed requires that we can measure policy on the same metric on which we can locate the preferences of individual parties. This is, to put it mildly, a difficult feat.\footnote{Dunleavy and Bastow (2001, 24) for instance write “We know of no datasets which directly measure government policy outcomes for parliamentary democracies.” Earlier literatures measures policy by spending, but this proxy is obviously imperfect if policy is regulatory, symbolic and/or involves tax incentives rather than expenditure. See Budge and Keman (1990) and Klingemann et al. (1994).}

In the analysis that follows, I circumvent the empirical challenges by examining the case of monetary policy and building upon rational partisan theory to structure our expectations for the testable implications that should follow if particular actors have policy control. Rational partisan theory argues that parties on the left (right) place a lower (higher) premium on inflation relative to growth. Thus a minister from the left will loosen monetary policy when he or she is in power, if indeed the minister has discretion over monetary policy, with the opposite relationship holding for a minister from the right. The partisan preferences of parties, when voters are rational, result in temporary cycles in output and employment following changes in policy-maker, termed “rational partisan cycles” and consistent differences in monetary policy and inflation depending on which party controls policy.

Rational partisan theory thus associates changes in partisan control over policy with changes in policy instruments and economic outcomes. By matching those same outcomes with changes in cabinet composition, therefore, we can answer a simple question. Do we see significant changes in policy and outcomes following changes in the party controlling the Ministry of Finance and do those changes follow the party’s preferences?\footnote{In what follows, I assume that the Minister of Finance controls macro-economic policy, despite the existence of the Ministry of Economic Affairs in many coalition governments. The post of Minister of Finance is viewed as the most important portfolio in all the country cases analyzed by Laver and Shepsle (1996, 153). The Minister of Economic Affairs is generally responsible for industrial policy.} Alternatively, do we see significant changes in policy and outcomes following changes in cabinet leadership that are expected to change the coalition contract? These tests indicate the degree to which the individual minister is autonomous over policy or whether policy control is shared.
This is the analysis that is implemented in the following essay, examining cycles in the real economy and partisan effects on inflation and monetary policy instruments for 16 parliamentary democracies.\textsuperscript{7} This sample of countries is selected because of the availability of data on ministerial appointments and policy instruments, but also because it allows comparison with earlier tests on rational partisan cycles. Further, the analysis was conducted for a period of notable volatility in monetary policy during which the evidence for partisan cycles in monetary policy should be clearest and for country years in which policy was not constrained by a fixed exchange rate.\textsuperscript{8} This is the first example of empirical work that uses rational partisan theory to test theories of coalition policymaking and one of the first examples of a direct test of ministerial discretion over policy (see also Becher, 2010).\textsuperscript{9} It is also, following a review of the literature, the first study to enrich tests of rational partisan theory by considering the role of different cabinet members. The approach is similar to that taken by Bawn (1999) in testing for the impact of veto players on legislation and related to the work of Bräuninger and Hallerberg (2003) on shifts in spending upon government and ministerial changes.

1 \textbf{Rational Partisan Theory and Coalition Governance}

The seminal statement on partisan theory is due to Hibbs (1977) who argued that parties adopt markedly different positions on macro-economic policy due to distributional concerns for their electoral base. Left-wing parties are concerned with the impact of unemployment on workers (who vote for them in greater numbers) and thus adopt policies that reduce unemployment at the expense of higher inflation. The predicted result is that growth (and inflation) is higher under left-wing governments while unemployment is lower. Alesina (1987) updated this model to incorporate rational expectations on the part of voters, who anticipate the policy actions of governing parties.

Because workers incorporate expected inflation into wage demands, the long-term impact of partisan policy on growth and unemployment is

\textsuperscript{7} The countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, The Netherlands, New Zealand, Norway, Sweden, and the UK.

\textsuperscript{8} Additional institutional constraints on monetary policy are considered in Section III.

\textsuperscript{9} While Becher (2010, 54) shows that veto players constrain partisan ministers in undertaking labor market reform, he is unable to adjudicate who holds policy rights within cabinet.
negated. Nominal wage contracts, however, are set for determinate periods, generally two years, so that an unexpected change in the policy-maker can have real effects on output via a change in the real wage level. A change in the incumbent to the right, for instance, will result in a lower rate of inflation and an increase in real wages, reducing the demand for labor, shrinking output, and simultaneously increasing unemployment.

These real effects on growth and output, termed rational partisan cycles, occur only after a change in the incumbent policy-maker that rational voters could not have fully anticipated, as after an election or a change in cabinet composition following an intra-electoral dissolution. The first testable implication of rational partisan theory is that a change to a right (or more right-wing) policy-maker will be followed by a period, described as a partisan cycle, of lower growth (and higher unemployment) before nominal wage contracts are updated. Equally, a move to a left (or more left-wing) policy-maker should be associated with a period of higher growth and lower unemployment as increased inflation erodes real wages and expands labor demand. In addition, inflation is expected to be consistently lower throughout the tenure of a right policy-maker and monetary policy tighter.

The first of these implications, of rational partisan cycles in real output, is tested using the observed sequence of real GDP growth (or unemployment) to determine whether changes in incumbents have significant effects during the transitional period before economic agents update wage contracts. The second implication of rational partisan theory, that monetary policy will be looser and inflation higher under left incumbents, is tested similarly, looking at policy and inflation outcomes throughout the tenure of policy-makers.10

In order to adapt tests for rational partisan effects to instances in which the relevant policy-maker is unclear, and to identify that policy-maker, it is first necessary to understand what the two theories of coalition governance, set out in the last section, imply for partisan effects. Under the original assumption of ministerial discretion, ministers hold monopoly rights over policy-making within their jurisdiction. Laver and Shepsle (1996) note that ministers decide which issues to bring to cabinet and that departments have significant power to shape proposals that are presented there. Given the obstacles to transmission of information, and the gate-keeping power of ministers, Laver and Shepsle (1996) theorize that coalition partners resign

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10 For earlier empirical analysis, see Alesina et al. (1997) and Paldam (1999). For more recent testing of rational partisan theory, see Potrafke (2011).
themselves to ministerial defection and grant full autonomy to individual ministers in their particular jurisdiction. Since political parties under most parliamentary systems are cohesive, this implies that parties assume full control rights over the policy areas attached to individual departments.

If the theory of ministerial discretion is correct, we should only observe real effects in the economy after a change in government moves the Ministry of Finance to a party with different preferences. There should be no real effect when a change in government keeps the Ministry of Finance in the hands of the same party. By contrast, and if coalition policy is guided by a negotiated contract between cabinet members, there should be no real effect of changes in the party holding the Ministry of Finance position unless and until there is also a significant change in cabinet composition.

The implications of the two theories of coalition policy-making can also be stated visually, using a spatial representation of party preferences in two dimensions, where the horizontal axis stands for monetary policy and the vertical axis captures the remaining dimension of partisan policy preferences. Figure 1 indicates the feasible government alternatives for a two-party coalition in a three-party legislature in which no party holds a majority

Figure 1. Government positions under ministerial discretion.

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Laver and Shepsle (1996) label the vertical axis “foreign policy”, which they regard as the second most important ministerial position after Finance.
of seats. The points “AA” and “BB” indicate minority governments in which one party holds all ministerial positions and indicate the ideal point of each party in two-dimensional policy space. Initially, Party A forms a minority government but subsequently enters into negotiations with Party B to form a coalition government.\footnote{In what follows, I do not explain how the government moves from position AA to AB or BA and this example is used solely to clarify the anticipated macro-economic outcomes if Ministers of Finance are autonomous in their jurisdiction.}

The two possible government locations predicted for this new coalition government under the theory of Ministerial discretion would be AB or BA. The first location would involve no shift in the preferences of the Minister of Finance because Party A would still control monetary policy while the second would entail a shift in control of monetary policy to Party B.

The macro-economy will be consistent with the hypothesis of ministerial discretion if:

1. there is no observed effect on the real economy after a shift from AA to AB (in which the preferences of the Minister of Finance remain constant); and
2. there is an observed effect on the real economy after a shift from AA to BA (in which the preferences of the Minister of Finance change).

In other words, and under the hypothesis of ministerial discretion, the key occurrence for the economy is not a change in the Left–Right position of the government as a whole but a change in the Left–Right position of the Minister of Finance because it is the Minister of Finance who controls monetary policy.

Conversely, the economic record would contradict the hypothesis of ministerial discretion if either:

1. there is an observed effect on the real economy after a shift from position AA to position AB (although the preferences of the Minister of Finance remain constant); or
2. there is no observed effect on the real economy after a shift from AA to BA (despite a change in the preferences of the Minister of Finance).

The first of these counter-indications would arise if the monetary policy of the new AB government is set on the contract curve (pictured) between ideal points AA and BB rather than being fixed at the position of the
Finance Minister, A. In this case, the negotiation of a new coalition agreement on the contract curve between AA and BB would allow a large shift in policy outcomes. The second counter-example follows from a situation in which A initially controlled the Minister of Finance position and ensured that its preferred monetary policy was enacted and then continued to exert complete policy control even though formal ministerial control had shifted to party B. Thus, the counter-examples both refer to cases in which cabinet partners are able to influence policy (consistent with the assumption of a coalition contract), although they do not hold the Finance portfolio. The key occurrence for the economy, therefore, is a change in cabinet composition that is expected to shift the negotiated policy contract.

The coalition contract, in this instance, refers to a set of policy commitments, equivalent to a point in multidimensional policy space. Direct tests of the influence of this contract would be based on the proximity of outcomes to the coalition’s monetary commitments and would require that we could identify changes in the cabinet contract. However, and because formal work within noncooperative theory has not yet yielded a generalized, “off the shelf” model of cabinet negotiations at the formation stage, we cannot identify shifts in an assumed coalition contract with any exactitude. The approach taken here is to use, as proxies for changes in a presumed coalition contract, shifts in the preferences of actors with greater bargaining power over policy. The limitation of such an approach, given the operationalization, is that we cannot make direct inferences about the impact of an assumed coalition contract from empirical results. We can, however, infer whether specific changes in cabinet membership are significant for policy, and this in turn can indicate whether theorized coalition contracts are potentially relevant and meaningful. Finally, and because changes in cabinet composition affect policy outcomes under the alternative theory of shared policy discretion, it is vital that we control for those changes in tests of ministerial discretion.

In particular, although noncooperative models vary in the predicted weights for different parties, almost all imply a proposal advantage for the formateur. By custom, the formateur party has sole power to make coalition proposals to potential coalition members who must either accept or reject the proposal being offered. If successful, the formateur subsequently

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13 Diermeier (2006) notes the technical difficulties inherent in applying the Baron–Ferejohn model to realistic environments of multiple parties with varying policy preferences.
assumes the office of Prime Minister (Müller and Strøm, 2000). Given a cost of delay, the party designated as *formateur* wields proposal power in the formation stage and models of coalition negotiation predict that the *formateur* party will be able to influence the resulting coalition in important ways, shifting coalition policy in its preferred direction (Austen-Smith and Banks, 1988; Baron, 1991). For this reason alone, it is important to base predictions of coalition policy on the preferences of the party occupying the office of Prime Minister (and which has also presumably served as *formateur*).

Second, larger parties are expected to extract greater policy concessions at the coalition formation stage because their expected value under the reversion point, should negotiations break down, is higher, with large parties likely to be selected as *formateur* in subsequent rounds (Martin and Stevenson, 2001). As a result, coalition contracts are expected to be biased toward the preferences of the *formateur* and the larger parties in a coalition. In summary, changes in cabinet composition that bring in new Prime Ministers or shift the largest party should also be associated with changes in policy outcomes.

A related question is whether we can observe clear instances of either ministerial discretion, or the influence of a coalition contract, because of the intervening effect of on-going negotiations in cabinet. The choice of monetary policy as the test case, however, sidesteps this issue. Monetary policy is not legislated, obviating the need for full cabinet approval, and has no budgetary implications. Further, and because interest rates must be adjusted periodically in response to external shocks, the Prime Minister cannot

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14 Laver *et al.* (2011) make an important contribution to our understanding of the complexities involved in identifying the *formateur*. As Laver *et al.* recount, earlier codings of *formateur* status by Warwick and Druckman (2001), although based on media accounts, are in all but one case identical to an indicator variable for the Prime Minister’s party. As such, it is impossible to test, a priori, whether *formateur* parties that lead successful negotiations always serve as Prime Minister in the resulting government.

15 The other factors identified in earlier research as increasing the chance of selection as *formateur* are having served as previous Prime Minister and being the median party in the legislature (Warwick, 1996). Martin and Stevenson (2001), however, find that although the party of the incumbent Prime Minister is no more or less likely than any other party to act as *formateur* for the ensuing government, incumbent governments are more likely to form than other cabinets. Martin and Stevenson (2001) also show that centrist parties that are also “very strong” are more likely to be chosen as *formateur*. Independent of strength, the median party is no more or less likely to be selected as *formateur* than any other actor.

16 See Herzog (2011) for a model of coalition cabinet negotiations with a Prime Minister, a line minister and a Minister of Finance.
prevent the Minister of Finance from taking policy actions through the mechanism of cabinet agenda-control. Thus, the estimated results for policy outcomes are unlikely to be affected by cabinet negotiation as an intervening variable.\footnote{Lawson’s (1992) autobiographical account mentions meeting with the Prime Minister around interest rate hikes but never refers to discussion in full cabinet.}

Finally, and on an empirical note, it is feasible to observe changes in cabinet leadership, independent of shifts in the party controlling the Minister of Finance (and vice versa), due to the extent to which coalitions divide major portfolios among different parties.\footnote{Data on portfolio allocation by government from Woldendorp et al. (2000).} While larger parties in countries like Germany and Ireland almost always dominate key portfolios, coalitions in other nations frequently allocate significant roles to different parties. In Finland, for example, the Social Democratic Party (also the largest party) served as Prime Minister in the early 1970s while the center-right KESK (or Center Party) occupied the position of Minister of Finance, only to substitute KESK as Prime Minister and the SDP as Minister of Finance in 1976 before reverting to the earlier arrangement in 1979. Within any given cabinet, the largest party generally supplies the Prime Minister, but it is far more frequent that the Ministry of Finance is awarded to another party. For 11 European countries that support coalitions, and over the period 1960–1996, the Minister of Finance came from a different party from the Prime Minister in 56 percent of coalition governments, and did not come from the largest party in 54 percent of coalition governments.\footnote{Those countries are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, and Sweden.} I turn next to the implications of this division of ministerial portfolios across coalition parties for rational partisan cycles.

## 2 Data and Methods

In what follows, rational partisan effects are modeled empirically for 16 of the 17 parliamentary democracies analyzed in Alesina \textit{et al.} (1997) and employing partisan dummy variables that allow me to test which, if any, actor in coalition cabinets appears to wield control over monetary policy.\footnote{Switzerland is not included in the data set because the norm of “collegiality” in the Swiss Federal Council in which all major parties are represented complicates the formation of theoretical priors over which actors should control macro-economic policy (Church, 2004).} Thus, the
sample used in the specification testing for rational partisan effects includes countries that never sustained coalition government. These countries are included in the sample to allow comparison of the magnitude of rational partisan cycles observed under coalition government, conditional on changes in given cabinet actors, to those seen in “Westminster” systems. However, the sample used to estimate the consistent effect of partisan preferences on monetary policy outcomes is estimated only for coalition governments because of the focus, in this test, on countervailing influences on policy within coalitions.

The benchmark model from Alesina et al. (1997) is used to estimate a model of rational partisan cycles with modifications to capture changes in particular cabinet actors whose preferences might be expected to affect monetary policy and real outcomes. The baseline specification is a fixed effect, dynamic panel regression of a measure of the real economy (or policy) on the time series’ own past history and a dummy variable capturing the rational partisan effects anticipated by theory. The model also includes a measure of the world business cycle to control for linkages between the domestic and international economies. Country and year dummies are included to soak up country-specific and period-specific heterogeneity that may otherwise induce bias in the coefficients of interest. The model of rational partisan cycles is estimated using two different measures of real activity (GDP growth and unemployment) while data on inflation and real interest rates is used as the dependent variable in tests for consistent, partisan effects on policy outcomes. The baseline model has the following specification.

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21 Of the countries, four (Australia, Canada, New Zealand, and the UK) never experienced a coalition government during the period of study while another four (Belgium, Finland, Germany, and The Netherlands) were governed exclusively by coalitions.

22 Estimated rational partisan cycles, conditional on change in a given cabinet actor, are almost identical when the model is estimated only for countries that saw at least some instances of coalition government.

23 As Alt and Rose (2007) note, while the original specification used by Alesina et al. (1997) has been challenged, the use of a standard, dynamic panel regression allows comparison with the original findings. Faust and Irons (1999) recommend the inclusion of multiple control variables to ensure that partisan dummies are not absorbing the effect of other factors. The objective of the current exercise, however, is not to test whether rational partisan effects can be identified in the presence of multiple control variables, but to test whether those effects are significantly different for different cabinet actors.

24 In earlier tests, a dummy variable was included for right-wing governments and one for coalitions, since these variables are implicit in controls for rational partisan cycles but these variables were never significant and were dropped from later specifications.
In Equation (1), $y_t$ is the time series for macro-economic outcomes or a given policy instrument, $p$ is the number of lags of the dependent variable, $yw_t$ is a proxy for world business cycle, $D_i$ is a set of country dummies excluding one country, and $D_t$ is the set of year dummies minus one year. The proxy for the world business cycle is the weighted average of GDP growth in the G-7 economies in regressions for which growth is the dependent variable, the analogous weighted average for the first difference in unemployment, and the G-7 weighted average for inflation in models of inflation and real interest rates.\(^{25}\) $RPT_{t-1}$ is the particular dummy variable used to control for hypothesized effects predicted by rational partisan theory.\(^{26}\)

The magnitude of rational partisan cycles, and partisan effects on policy, will also depend on the difference across parties in preferences for monetary policy. Indeed, scholarly interest in rational partisan cycles, at least for OECD economies, has fallen with the observed decline in the volatility of monetary policy as concerns for price stability started to supersede objectives for output and employment (Schève, 2004). As the level and volatility of monetary policy fell, many countries either delegated to independent central banks or adopted fixed exchange rates. The growing effectiveness of these constraints meant that discretionary monetary policy was no longer available to many governments (Clark and Hallerberg, 2000). Given the impact of such institutions, and of changing preferences over inflation, Franzese (2002) and Franzese and Jusko (2006) counsel that scholars direct their attention to “context conditional cycles”, testing for rational partisan effects in contexts in which they may be observed.

This is the approach taken here. While data is available for a longer time series, I test for rational partisan cycles in the period following the collapse

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\(^{25}\) Given incomplete data coverage for the weighted G-7 inflation rate, the effect of including this variable is to reduce the number of data points by almost half (while increasing $R^2$). Substantive results, however, are unchanged if the control for G-7 inflation is dropped from the model for policy effects.

\(^{26}\) The model assumes that actual changes in government cannot be fully anticipated by voters. See Carlsen and Pedersen (1999) for an example of a model that enriches Equation (1) with a control for the degree to which the change in policy-maker is unexpected.
of Bretton Woods and before the convergence of inflation rates in European countries. The period prior to the mid-1980s is suggested by reference to the scholarly literature on exchange rates and capital mobility with Eichengreen (2008, 163) noting that the dispersion of inflation in OECD nations fell by half between 1978–1983 and 1983–1987. Sandholtz (1993) also notes that, after 1984, negotiation of greater fixity of exchange rates in the EMS was easier because governments had already brought inflation rates closer in line with one another. The increasing convergence of European inflation rates brought to an end a period of enormous monetary and political turbulence. That period is, however, valuable to scholars of rational partisan cycles since, if monetary policy was available as a partisan policy instrument at any time, it was during this limited but informative period of high and variable inflation. Thus, the model outlined above is estimated for 16 OECD economies, using quarterly data, for the 11 years from 1973 to 1983. In addition, however, countries operating a fixed exchange rate had effectively tied their hands, eschewing discretionary monetary policy. Thus the model above is estimated for the period 1973–1983 but using only observations from country years in which the exchange rate was flexible, based on observations of the de facto exchange rate regime from Reinhart and Rogoff (2004).27

For that sample period, data on real GDP and the consumer price index (CPI) is drawn from the IMF’s *International Financial Statistics*. The growth rate of GDP is defined as $(\ln GDP_t - \ln GDP_{i,t-1}) \times 400$, the annualized rate of growth observed in that quarter in the underlying, constant price GDP index for each country.28 Inflation (as growth in the CPI) was computed similarly. Data on nominal interest rates comes from the IMF and is deflated by the estimated rate of inflation to generate a measure of real

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27 A fixed exchange rate, in this instance, is any arrangement at least as fixed as a preannounced crawling band that is narrower than or equal to two percent (see Reinhart and Rogoff, 2004, 25). Thus, countries categorized as having a fixed exchange rate include those with limited and preannounced moves of their currencies vis-à-vis reference currencies, but excluded those who did not announce and maintain commitments to limited currency variability. The countries operating a fixed exchange rate most consistently over the period were Austria, Belgium, and Ireland. Substantive results are extremely similar if the sample is limited to country years of fixed exchange rates and central bank independence or to country years of fixed exchange rates and lower capital mobility and using measures of central bank independence and capital mobility from Clark and Hallerberg (2000) and Quinn and Inclan (1997), respectively. Results are available within a web appendix at www.qjps.com.

28 For countries for which the evidence of seasonality was particularly strong, the series was adjusted using the procedure laid out in Baum (2006). The countries affected by seasonality in the GDP data are Austria, Belgium, Denmark, Finland, Japan, and Sweden.
interest rates (which are expected to rise as monetary policy becomes more restrictive). Data on unemployment was taken from the OECD’s *Main Economic Indicators*, which uses a standard definition of the unemployment rate. Because panel unit tests showed evidence of non-stationarity, the first difference in unemployment is used as the second measure of real output. For all models, the number of autoregressive lags of the dependent variable was determined by reference to the Bayesian Information Criterion. Despite the absence of serial correlation in the error terms following the inclusion of lags, it is unlikely that the residuals are independent and identically distributed, given the panel nature of the data. In order to estimate the error matrix correctly for this data-generating process, and to produce unbiased standard errors, the regression is estimated using panel corrected standard errors, as described in Beck and Katz (1995).

Two types of dummy variables are used to capture the partisan effects foreseen in rational partisan theory or $RPT_{t-1}$. The first, described as $DRPTN$ or “Dummy for Rational Partisan Theory of length N quarters” by Alesina *et al.* (1997) is used to test for transitory partisan cycles in real growth and unemployment following a change in the preferences of the monetary policy-maker. This dummy takes on the value one in the quarter in which a more right-wing policy-maker comes into power and during the $N-1$ succeeding quarters, with a value of $-1$ for more left-wing policy-makers. The standard choices for the length $N$ of the period in which a rational partisan cycle will be observed are four, six, and eight quarters and the dummy is introduced with a lag of one quarter to allow for delay in policy change. The second

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29 It would also be possible to test for consistent effects on policy using data on money growth. However, measures of broad money (such as M3) are spottily available, even for OECD economies, and narrower measures of money, such as M1, are not as highly correlated with the policy objective of domestic credit expansion, which many monetary authorities sought to influence.

30 This result reflects a standard finding in the literature and relates to “hysteresis” in European unemployment data. See Blanchard and Summers (1986) for an early discussion of the phenomenon.

31 As Hsiao (2003) shows the use of lagged dependent variables in a dynamic, fixed effects panel model may lead to inconsistent estimates of the parameters through the correlation between the error term and the lagged dependent variable and would motivate the use of a procedure like Arellano–Bond. The problem is serious in panel sets where the number of cross-sectional observations ($N$) is large in comparison to the number of time series observations ($T$). In the current data set, $T$ is comparatively large (44 quarters) compared to the number of included lags and compared to $N$. In such cases, the parameter estimates of the standard fixed effects dynamic model are consistent so long as the underlying data-generating process is ergodic, the standard assumption for regression analysis.
dummy variable, described as RADM by Alesina et al., is used to test for consistent partisan effects on inflation and monetary policy throughout the tenure of a given policy-maker. RADM takes on the value 1 for a right-wing policy-maker and $-1$ for a left-wing policy-maker.

Information on the party membership of government and portfolio allocation is drawn from the data set presented by Woldendrop, Keman, and Budge in the *European Journal of Political Research* and updated (with additional country cases) in their 2000 volume. This data is used to generate the dummies DRPT and RADM. In some estimations, these dummies are weighted by the estimated change in partisanship occurring with a change in a Minister or party. Partisanship, and changes in partisanship when one policy-maker succeeds another, is measured using expert surveys of party positions on the main, left–right axis of party competition. The use of expert surveys is preferred over a cross-country measure, such as the well-known “rile” score (based on the coding of manifestos) as theoretically appropriate. Workers and employers, when negotiating wage contracts, do not take into account the ideological placement of a particular monetary policy-maker in comparison to parties in other countries. Rather, they are concerned with the expected change in policy relative to other incumbents in that country, suggesting the use of a measure of ideology that is country-specific and guided by particular knowledge of past actions and statements.

In order to test which cabinet actors hold policy control, both the DRPTN dummy and the RADM dummy are adapted to isolate the effects of changes in particular cabinet actors and thus to test whether the preferences of these actors are significant for policy. Returning to the conceptual framework that guides the empirical design, individual dummy variables are generated to reflect each of the motivating examples set out in the section on rational partisan theory and coalition government. The codings for DRPTN and

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32 The RADM dummy is one of two used by Alesina et al. (1997) to test for partisan effects, with the other dummy, titled ADM, short for “administration.”

33 In compiling the information on coalition governments, the Australian electoral pact between the Liberal Party and the Country Party (subsequently the National Country Party and then the National Party) is treated as a single party. The pact has lasted since the 1940s, shortly after the founding of the Liberal Party, and involves an implicit agreement not to contest each other’s safe seats, see Delury (1999).

34 These expert survey measures are normalized so that all measure partisanship on a $0$–$10$, left–right axis.

Who Decides? Coalition Governance and Ministerial Discretion

Figure 2A. Dummy variables for rational partisan cycles conditional on cabinet actor.

<table>
<thead>
<tr>
<th>Change Cabinet Leadership (PM or Largest Party)</th>
<th>Change Minister of Finance</th>
<th>No Change Min of Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRPTN_Same (1 if Finance and Leader to Right, -1 if to Left)</td>
<td>DRPTN_Leader (1 if to Right, -1 if to Left)</td>
<td></td>
</tr>
<tr>
<td>DRPTN_Diff (1 if Finance to Right and Leader to Left, -1 if Finance to Left and Leader to Right)</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2B. Dummy variables for rational partisan effects conditional on cabinet actor.

<table>
<thead>
<tr>
<th>PM (or Largest Party) is Left</th>
<th>Change of Minister of Finance is Left</th>
<th>Change of Minister of Finance is Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADM_Same (-1 for Left)</td>
<td>RADM_Diff (1 for Finance to Right and PM/Largest to Left)</td>
<td></td>
</tr>
<tr>
<td>RADM_Diff (-1 for Finance to Left and PM/Largest to Right)</td>
<td>RADM_Same (1 for Right)</td>
<td></td>
</tr>
</tbody>
</table>

RADM, conditional on cabinet actor, are shown in Figure 2A and B. In tests based on rational partisan cycles in economic outcomes, I create a dummy DRPTN-Finance, which takes on the value 1(−1) with a change to a more right-wing (left-wing) Minister of Finance and for the next \( N − 1 \) quarters when and if there is no simultaneous change in cabinet leadership so that the Prime Minister’s party remains in the same hands and there is no change in the largest party in the government.\(^\text{36}\) DRPTN-Leader is coded similarly (with one for a move right and −1 for a move left) with a change in the party holding the Prime Minister’s office or a change in the largest party in the

---

\( ^{36} \) The coding is conservative in its treatment of non-partisan Ministers of Finance, who saw appointments in both Finland and Italy. In this case, and because it is not possible to observe the preferences of non-partisan ministers directly, the partisan dummy variables are coded as missing.
coalition that takes place with no change in the Minister of Finance.\textsuperscript{37} Thus, both DRPTN\textunderscore Leader and DRPTN\textunderscore Finance control for changes in cabinet actor independent of surrounding shifts in the coalition.

DRPTN\textunderscore Same takes on the value 1 (−1) with changes in the preferences of both the Minister of Finance and cabinet leadership to the right (left) while the dummy variable DRPTN\textunderscore Diff is used to test the effect of government changes that generate a change in the Minister of Finance and in the cabinet leadership with those changes working in opposite direction. In this instance, the value 1 for DRPTN\textunderscore Diff implies that the preferences of the Minister of Finance are now further to the right and the preferences of the cabinet leadership are now further to the left.

For single-party governments, the impact of Minister of Finance on policy and outcomes cannot be estimated separately from the impact of other actors because one party fills all ministerial positions in cabinet. For these countries, I introduce a separate control for rational partisan effects: DRPTN\textunderscore SPG.\textsuperscript{38} Estimating a separate coefficient on DRPTN\textunderscore SPG allows us to compare the size of rational partisan effects for single-party governments, where policy cycles are expected to be clearest, to rational partisan effects found under coalition governments. Following the creation of these dummy variables, the specification used to test for rational partisan cycles in the real economy, conditional on cabinet actor, is shown below:

\textbf{Equation (2)}

\[
y_t = \alpha_0 + \sum_{p=1}^{P} \alpha_p y_{t-p} + \alpha_{p+1} y w_t + \beta_1 DRPTN\textunderscore Finance_{t-1} \\
+ \beta_2 DRPTN\textunderscore Leader_{t-1} + \beta_3 DRPTN\textunderscore Same_{t-1} + \beta_4 DRPTN\textunderscore Diff_{t-1} \\
+ \beta_5 DRPTN\textunderscore SPG_{t-1} + \Gamma X + \varepsilon_t
\]

Here, \( \sum_{p=1}^{P} \alpha_p y_{t-p} \) describes a set of lagged dependent variables, again capturing the autoregressive component in the real economy, while the

\textsuperscript{37} It is possible to code DRPTN\textunderscore Leader based on a change in either the largest party or the party occupying the office of Prime Minister because we never observe an instance of a change in cabinet composition that shifted the preferences of the Prime Minister and largest party in different directions.

\textsuperscript{38} The DRPTN\textunderscore Finance, DRPTN\textunderscore Leader, DRPTN\textunderscore Same, and DRPTN\textunderscore Diff variables are defined for cases in which the previous government or the succeeding government or both were coalitions.
additional explanatory variables, \( \Gamma X \), include a control for the world business cycle and a full set of year and country dummies. The expectations for the \( \beta \) coefficients follow from rational partisan theory under different hypotheses about policy control. If the Minister for Finance has full discretion over policy, then the estimated coefficient on \( \beta_1 \) should be negative for growth and positive for unemployment. At the same time, the estimated coefficient on \( \beta_2 \) should be zero as changes in leadership, independent of changes in ministerial preferences, have negligible effect on policy. By contrast, if it is leadership, and the contract they influence, that determines policy, then the estimated coefficient on \( \beta_2 \) should be negative for growth as the dependent variable and positive for unemployment, with an estimated coefficient on \( \beta_1 \) near zero. The expectation for the coefficient on \( \beta_3 \) also follows from rational partisan theory. When there is a shift in the preferences of the Minister of Finance and the cabinet leadership to the right (left) we have strong grounds for expecting a temporary reduction in growth and increase in unemployment. The expectations for \( \beta_4 \), however, depend on which cabinet actor has the dominant effect on policy, if a dominant policy-maker can be identified. The dummy variable is generated so that the expected sign follows rational partisan theory if the Minister of Finance is autonomous over policy. Thus, it is negative for growth and positive for unemployment if policy follows the preferences of the occupant of the Finance Ministry but will have the reverse sign if the preferences of cabinet leadership guide policy.

The RADM variables, coded to control for consistent partisan effects on policy, conditional on cabinet actor, are outlined in Figure 2B. Because these effects are expected to hold over the lifetime of a government, they are not limited to \( N \) quarters following a given change, but rather apply over the full tenure of a cabinet actor. Since the purpose of the dummy variables is to test for the effect of the preferences of different actors on policy, the RADM variables are constructed to highlight cases in which the preferences of partners within the coalition are at odds and to gauge the effects on policy when differences apply. The dummy variable \( \text{RADM}_{\text{Same}} \) simply controls for partisan effects on policy when both the Minister of Finance and either the largest party or Prime Minister are from the same side of the aisle.\(^{39}\) It is coded 1 for right-wing preferences and \(-1\) for left-wing preferences.

\(^{39}\) A party is considered “right” if its estimated party position is five or above in the normalized expert coding of party positions from 0 to 10.
By contrast, $RADM_{Diff}$ is coded 1 when the Minister of Finance is from the right but the largest party (or PM) is from the left, and $-1$ in the opposite case. The specification used to test for rational partisan effects on policy is thus:

**Equation (3)**

$$y_t = \alpha_0 + \sum_{p=1}^{P} \alpha_p y_{t-p} + \alpha_{p+1} w_t + \beta_1 RADM_{Same_{t-1}}$$

$$+ \beta_2 RADM_{Diff_{t-1}} + \Gamma X + \varepsilon_t$$

As before, expectations for $\beta_1$ and $\beta_2$ follow from a priori partisan preferences over policy. Because the right is associated with more restrictive monetary policy, $\beta_1$ should be negative for inflation and positive for real interest rates. The expectation for $\beta_2$, however, depends on which set of preferences are more relevant for policy, with $\beta_2$ negative for inflation and positive for real interest rates if the preferences of the Minister of Finance determine policy, and positive for inflation and negative for real interest rates if it is the preference of cabinet leadership that prevails.

## 3 Results

For reasons of brevity, and in order to focus on the main findings of interest, the full set of estimated coefficients is not presented here. Tests from the different models indicate that the country and year dummies are always jointly significant, as are the autoregressive logs of the dependent variable. Further, the control for the world business cycle is generally significant and in the anticipated direction, indicating significant levels of linkage between the domestic economy and international conditions.

Table 1 reports the estimated partisan effects on the real economy by policy-maker, modeled using the DRPTN dummy variables. These include the estimated rational partisan cycles for growth and unemployment for the period 1973–1983 and for countries whose exchange rate was not fixed. Results are shown for rational partisan cycles estimated assuming a length of partisan effect of six quarters, which offers the best fit to the data.

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40 They are, however, available as part of a web appendix at www.qjps.com.
Table 1. Rational partisan cycles in the macro-economy by cabinet actor.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Growth</th>
<th>Unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>$DRPT_{Finance Only}_{t-1}$</td>
<td>0.091</td>
<td>-0.186</td>
</tr>
<tr>
<td></td>
<td>(0.45)</td>
<td>(0.27)</td>
</tr>
<tr>
<td>$DRPT_{Leadership Only}_{t-1}$</td>
<td>-0.477</td>
<td>0.026</td>
</tr>
<tr>
<td></td>
<td>(0.36)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>$DRPT_{Both in Same Direction}_{t-1}$</td>
<td>-0.518</td>
<td>-0.002</td>
</tr>
<tr>
<td></td>
<td>(0.24)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>$DRPT_{Both in Different Directions}_{t-1}$</td>
<td>2.228</td>
<td>0.339</td>
</tr>
<tr>
<td></td>
<td>(0.94)</td>
<td>(0.27)</td>
</tr>
<tr>
<td>$DRPT_{SPG}_{t-1}$</td>
<td>-0.595</td>
<td>0.152</td>
</tr>
<tr>
<td></td>
<td>(0.30)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.43</td>
<td>0.42</td>
</tr>
<tr>
<td>$N$</td>
<td>449</td>
<td>199</td>
</tr>
</tbody>
</table>

NB: Results are show for an estimated rational partisan cycle (DRPT) that is expected to last six quarters. Both models include four lags of the dependent variable. Application of the Breusch–Godfrey test, as in Hayashi (2000) indicates no evidence of serial correlation in the error term.

We look first at the estimated coefficients for single-party governments, for which policy-making is unified and outcomes are expected to hew more closely to the predictions of the rational partisan model. Looking first at the model for GDP growth, the estimated effect of a shift from a left government to a right government in these conditions is to lower average annual growth in GDP by just under 0.60 percentage points (or 0.595) during the six quarters after a new government comes into power and this effect is significant. This effect is very similar to the rational partisan cycle effect estimated by Alesina et al. (1997) for a set of eight countries associated with regular competition between large parties of the left and right for 1960–1993, for which the estimated $\beta$ was 0.53 for a cycle of six quarters.\footnote{The eight countries are Australia, New Zealand, Canada, US, UK, France, Germany, and Sweden.} The estimated effect on the political dummy is also positive and significant for the first difference in unemployment, again as expected and the size of the coefficient is again close
to the findings reported by Alesina and his co-authors for rational partisan cycles in unemployment in countries with marked left–right competition.

How does the record of rational partisan cycles following the change in particular cabinet actors under coalition governments compare with these findings? Further, do the estimated coefficients follow the pattern that we would expect if ministerial discretion holds, with partisan cycles following from changes in the Finance portfolio or are they consistent with a policy role for cabinet leadership, independent of portfolio allocation? First, there is little direct evidence of a significant effect of changes in the Minister of Finance, despite the fact that we see a number of cases in which the Ministry of Finance switches from one party to another while other major cabinet positions remain constant. The estimated effect of a shift in the Minister of Finance to bring in a minister with more right (left) preferences (shown as the coefficient on DRPT\_Finance) is to raise growth by 0.091 percent on average over the cycle period and the estimated coefficient is dwarfed by its standard error. By contrast, the estimated coefficient for changes in coalition leadership (or the coefficient on DRPT\_Leader) is over five times as large, at −0.477 percent, although the coefficient does not reach statistical significance, in part because of the smaller number of cases (five) in which either the Prime Minister or the largest party in the coalition shifted while the Minister of Finance remained the same. Thus the estimated rational partisan cycle is much larger for changes in coalition leadership, while the standard error is slightly smaller than it is for changes in the Minister of Finance portfolio.

Next, the predicted effect on growth when there is a shift in preference of cabinet leaders and the Minister of Finance, and this shift is in the same direction (DRPT\_Same), is to reduce growth by 0.518 percentage points for the six quarters after a change in government. This is almost identical in size to the coefficient estimated for single-party government and the effect is significant. In some ways, then, the score card for the Minister of Finance and coalition leadership might look somewhat similar. While the estimated coefficient is much larger for leadership, it is not significant. On the other hand, the coefficient for changes in which the Minister of Finance moves in one direction, and coalition leadership moves in the opposite direction, is positive and significant. This is contrary to the expectation if the Minister

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42 Three of these examples are from Finland, three from Italy, and one from the Netherlands.
43 These cases come from Italy and Sweden.
of Finance has full discretion over policy and is consistent with expectations if coalition leaders have a significant, and perhaps greater, influence.

Turning next to the results for unemployment, and for policy actors under coalition governments, many of the estimated coefficients are positive, but none are remotely significant. This absence of any partisan effect may stem from the highly regulated nature of labor markets in coalition systems, which contributed to “hysteresis” in unemployment and movements in unemployment that were more closely related to changes in benefits and labor law than to movements in real output.\footnote{Controls on job termination may have reduced the rate at which employers laid off workers in response to changes in demand. Petrongolo and Pissarides (2008) examine the dynamics of unemployment across countries, indicating that the countries with more protection were less likely to see inflows into unemployment.}

Returning to the results for growth, it could be argued that the results above are biased against finding a significant result from changes in the preferences of the party holding the Ministry of Finance, because more centrist parties were perhaps more likely to be allocated this portfolio. To determine whether the smaller estimated effects for the Minister of Finance are due to the occupancy of this position by more centrist parties, the models of short-term rational partisan cycles in growth and unemployment are re-estimated with a control for degree in ideological shift. Specifically, the DRPTN dummy for all actors was multiplied by the absolute size of the change in preferences with a change in policy-maker and with the magnitude of change taken from expert surveys.\footnote{In the case of controls for rational partisan cycles following a shift in both the Minister of Finance and cabinet leaders, results are substantively equivalent whether the shift in preferences used to weight the dummy variable is that of the Minister of Finance or the cabinet leadership. Results are shown for controls in which the preference shift is measured from the Minister of Finance position.} It follows that the estimated coefficients on the DRPTN dummy variables, weighted by size of preference shift, capture the predicted change in growth or unemployment that is expected to follow a one unit shift in preferences of the monetary policy-maker on a 0 to 10 axis. This is not to say that measures of partisanship are identical across countries, and perfectly measured, so that we could give a cardinal interpretation to measures of partisan change, but that the revised DRPTN dummies control (although imperfectly) for the degree of preference shift. Results are shown in Table 2.

The estimated results, from a model of rational partisan cycles weighted by magnitude of preference change, are no more favorable to the hypothesis
Table 2. Rational partisan cycles weighted by preference change.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Growth</th>
<th>Unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRPT_Finance Only_{t-1}</td>
<td>0.061</td>
<td>-0.316</td>
</tr>
<tr>
<td></td>
<td>(0.21)</td>
<td>(0.45)</td>
</tr>
<tr>
<td>DRPT_Leadership Only_{t-1}</td>
<td>-0.256</td>
<td>-0.012</td>
</tr>
<tr>
<td></td>
<td>(0.33)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>DRPT_Both in Same Direction_{t-1}</td>
<td>-0.133</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>DRPT_Both in Different Directions_{t-1}</td>
<td>1.293</td>
<td>0.229</td>
</tr>
<tr>
<td></td>
<td>(0.66)</td>
<td>(0.16)</td>
</tr>
<tr>
<td>DRPT_SPG_{t-1}</td>
<td>-0.135</td>
<td>0.041</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.43</td>
<td>0.42</td>
</tr>
<tr>
<td>$N$</td>
<td>449</td>
<td>199</td>
</tr>
</tbody>
</table>

NB: Results are show for an estimated rational partisan cycle (DRPT) that is expected to last six quarters. Both models include four lags of the dependent variable. Application of the Breusch–Godfrey test, as in Hayashi (2000) indicates no evidence of serial correlation in the error term.

of ministerial discretion over monetary policy. Once again, and in the model for growth, the estimated coefficient on DRPT_Finance is actually positive but small and far from significant, the coefficient for DRPT_Leader is negative, larger but not quite significant, and the coefficient on DRPT_Same is negative, significant and almost exactly equal to the estimated coefficient for single-party governments. Moreover, the coefficient on DRPT_Different is significant and positive, contrary to our predictions if the preferences of the Minister for Finance have more weight in monetary policy-making than those of the cabinet leadership. Again, and in line with the results shown in Table 1, there are no significant coefficients in the model for unemployment for coalition cases, so that rational partisan cycles do not appear to be manifested in this indicator under coalition governments. Taken together, the results imply that the absence of observed partisan cycles following a change in the preferences of the Minister of Finance is not due to the occupancy of this portfolio by centrist parties. Accounting for the degree of preference shift, we observe similar results to those obtained in Table 1. Changes
in cabinet leadership, separately or jointly with changes in the Minister of Finance position, appear more significant for growth than changes in the Minister of Finance position alone.

A further concern is that the results above may be biased by endogenous portfolio allocation. A Minister of Finance from the left, for instance, might be appointed by a center-right or right coalition exactly when the economy is slowing, or a recession is expected, and in order to signal its commitment to a more expansionary policy. We might not expect to see a positive effect of growth from the Minister of Finance in this case because the economy was already weak. Further, the results could be biased against finding any effect for the Minister of Finance if this portfolio is often used to signal changes in policy in response to economic shifts.

There are two responses to this real and plausible objection. One is that the tests are estimated using a dynamic panel model, which accounts for the autoregressive properties of growth and unemployment with the inclusion of numerous lags. The effects of changes in different cabinet actors on economic outcomes are thus captured as deviations from the course of the economy that we would otherwise expect and results should not be affected by particular levels of growth or unemployment. Indeed, it may be favorable for a left-wing Minister of Finance to enter in a period of actual or expected recession because it allows that person more flexibility to implement expansionary monetary policy. Second, there is little evidence that changes in the Minister of Finance portfolio are preceded by changes in economic expectations. A set of Granger causality tests indicated that the lags of past economic expectations had no significant effect on changes in the Minister of Finance position.46

Given a real concern, though, with endogenous portfolio allocation, it is particularly important to test for the effect of partisan differences over observed monetary policy. What, in other words, do Ministers of Finance actually do in office? Moreover, and given the observed lags between shifts in monetary policy and changes in inflation (Batini and Nelson, 2001; Bernanke et al., 1999), we can be fairly confident that Ministers of Finance will have to implement monetary policy consistently

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46 Results available within a web appendix at www.qjps.com. In order to generate a measure of expectations (of inflation, growth, and unemployment) those variables were regressed on their own past history, the past history of the other macro-economic variables, and lags of the leading indicators from the UK, US, Germany, and France, with this latter data series from the Conference Board.
Table 3. Rational partisan effects under coalition governments.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Inflation</th>
<th>Short-term Interest Rates</th>
<th>Long-term Interest Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minister of Finance and PM</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$RADM_{Same_{t-1}}$</td>
<td>-0.065</td>
<td>-0.101</td>
<td>-0.305</td>
</tr>
<tr>
<td></td>
<td>(0.25)</td>
<td>(0.30)</td>
<td>(0.24)</td>
</tr>
<tr>
<td>$RADM_{Different_{t-1}}$</td>
<td>2.229</td>
<td>-1.783</td>
<td>-2.805</td>
</tr>
<tr>
<td></td>
<td>(0.70)</td>
<td>(0.92)</td>
<td>(1.13)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.70</td>
<td>0.47</td>
<td>0.56</td>
</tr>
<tr>
<td>$N$</td>
<td>235</td>
<td>211</td>
<td>196</td>
</tr>
<tr>
<td><strong>Minister of Finance and Largest Party</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$RADM_{Same_{t-1}}$</td>
<td>-0.221</td>
<td>0.021</td>
<td>-0.118</td>
</tr>
<tr>
<td></td>
<td>(0.26)</td>
<td>(0.30)</td>
<td>(0.25)</td>
</tr>
<tr>
<td>$RADM_{Different_{t-1}}$</td>
<td>3.212</td>
<td>-2.259</td>
<td>-4.003</td>
</tr>
<tr>
<td></td>
<td>(0.90)</td>
<td>(1.08)</td>
<td>(1.28)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.70</td>
<td>0.48</td>
<td>0.57</td>
</tr>
<tr>
<td>$N$</td>
<td>235</td>
<td>211</td>
<td>196</td>
</tr>
</tbody>
</table>


and systematically if they wish to achieve partisan objectives over inflation (although the effects of monetary policy on real output will be seen more quickly). Therefore, as additional leverage on the question of which actors in coalition cabinets control policy, we examine whether Ministers of Finance can move monetary policy, and inflation, in the direction we would expect.

Table 3 reports the results from estimating the model of consistent partisan effects on policy over the lifetime of coalition governments. Results shown in the upper section of the table estimate the impact of partisan preferences on inflation and real interest rates in cases where the Minister of Finance and Prime Minister were on the same or different sides of the left–right divide. The lower section shows results, which are similar, for the Minister of Finance and the largest party in the coalition. The results for
inflation, looking at $\text{RADM}_\text{Different}$, imply that average inflation is 2.228 percentage points higher when the Minister of Finance is from the right and the Prime Minister is from the left that it would otherwise be and is 2.228 percentage points lower when the situation is reversed and the Minister of Finance is from the left and the Prime Minister from the right. Such a result is inconsistent with complete ministerial discretion for the Minister of Finance, because it implies that the minister concerned would wish for, and realize, inflation rates that were contrary to the partisan preferences of his or her party. The results are, however, consistent with the inference that the preferences of the Prime Minister carry weight over policy, since policy outcomes are in line with the preferences of this actor. This conclusion is supported by the findings on real interest rates, since a right-wing actor would wish to raise such rates to reduce inflation and since real rates are significantly lower (with a negative coefficient) in coalition cabinets where the Minister of Finance hails from the right and the Prime Minister from the left. The coefficient on the partisan dummy when both the Minister of Finance and the Prime Minister (or largest party) shares the same partisan preferences is small, in all the models for policy, and insignificant. The lack of a finding in the case of shared partisan preferences may arise because the coding of $\text{RADM}_\text{Same}$ incorporates coalition partners that are relatively centrist with those that are more extreme. By contrast, the $\text{RADM}_\text{Different}$ isolates cases of very distinct differences in monetary policy preferences across the Minister of Finance and cabinet leadership.

To summarize the import of these results, rational partisan theory offers clear predictions of how varying preferences will affect policy instruments and macro-economic outcomes. Although partisan policy-making, and partisan cycles, will be less evident when governments are constrained, the phenomenon should be observable during periods in which governments have discretion over monetary policy and when parties have different preferences over monetary policy. Actual testing for rational partisan cycles involves controlling for the international business cycle, for country fixed effects, and specific year effects. Controlling for these factors, the record of macro-economic conditions and policy instruments indicates that we can observe instances of partisan policy-making during the period 1973–1983 for countries that did not operate a fixed exchange rate and that we can also observe short-run effects of this partisan policy-making in the form of temporary deviations in growth.
What we can also observe, however, is that rational partisan cycles do not seem to be associated with changes in portfolio allocation that moved the Minister of Finance portfolio from one political party to another (at least when we also control for changes in cabinet composition). By contrast, there is greater co-movement between shifts in the preferences of parties occupying a leadership role in cabinet and the real economy. Finally, and when changes in cabinet bring in both new leadership and a new Minister of Finance, it is the preference in the leadership that seems to predict the cyclical effects. The record of policy instruments reinforces the conclusion that the Minister of Finance does not hold full control over monetary policy. Indeed, for cases in which the Minister of Finance has different ideological preferences than the Prime Minister and/or the largest party in the coalition, the record of inflation and real interest rates would suggest that policy is closer to the preferences of these other coalition members and further from the preferences of the Minister of Finance.

4 Conclusion

I turn to the implications of these findings under three headings, looking first at our assessment of coalition governance, second at the strategic behavior of parties in seeking portfolios, and third at the economic consequences of coalition government. I conclude with an assessment of the relevance of the findings for the study of coalitions.

First, the results suggest that the assumption of full ministerial discretion does not hold. Policy control is at the very least shared, with other actors in the coalition able to move monetary policy and inflation toward their preferred outcomes. While the evidence for shared policy control could also point to the influence of day-to-day cabinet negotiations, the test case of monetary policy is one in which a minister should be least constrained by cabinet and for which ministerial autonomy is a feasible conceptual outcome.

The results serve as one of the first empirical tests relating coalition membership to policy. As such, the tests implemented here speak to the value of integrating models from comparative political economy into the study of coalition governance. Not only do coalition governments possess the means to monitor and discipline individual ministers, we now have evidence that these mechanisms affect policy and outcomes.
The findings prompt us to re-examine the theoretical priors of ministerial discretion. If governments assign monopoly policy rights to different ministerial jurisdictions, we might expect to see political parties specializing in the provision of specific policies and grooming themselves to occupy particular ministerial niches. Ministerial discretion, in other words, would be the corollary of multidimensional politics. Yet, for most of Western Europe, cleavages on religion and language that helped to create multiparty system were secondary in electoral politics to issues of class conflict and distribution over the sample period. If, as Huber and Inglehart (1995) contend, macroeconomic policy is the main, underlying variable that generates left–right party competition, we would be surprised if coalition members were willing to accept ministerial discretion in this area. As a corollary, ministerial discretion might hold to a greater degree in ministries that can produce targeted policies and rents, such as education, public works, and housing, rather than as a general assumption. Ministerial discretion would also be far more likely in policy areas that could not have been anticipated at the time of the coalition contract because of the greater role for ministerial gate-keeping in this case. Indeed, the potential for prior policy commitments is acknowledged in models of portfolio assignment (Dewan and Hortala-Vallve, 2011) and votes of confidence (Huber, 1996). Clarifying the conditions under which ministerial discretion holds is thus an important component of future research on coalition governance.

The findings also bring into question what objective function political parties are satisfying when they seek control of the Ministry of Finance. On one interpretation, smaller parties that assume control over the Ministry of Finance may seek to wield influence over specific policies within the general jurisdiction, but may also be engaged in costly learning. Earlier scholarship points to the problems that coalition members faced as preferences over inflation became a growing source of tension. Bernhard (2002) argues that governments became increasingly ready to delegate to independent central banks because of conflicts over monetary policy, conflicts that also resulted in higher coalition turnover. In Bernhard’s account, backbenchers warmed to delegation as a means of controlling ministers from their own party. The analysis presented here would indicate that ministers may have been unreliable agents precisely because they were constrained by prior commitments to coalition contracts. Once governments delegated
to central banks, conflict between coalition partners, and turnover, was reduced.\footnote{Delegation to central banks also appeared more effective than the appointment of non-partisan Ministers of Finance, attempted in both Finland and Italy.}

Third, the findings reported above suggest that we re-examine the main conclusions of the scholarship on rational partisan cycles under coalition governments. In the past, scholars have pointed to coalition governments as exemplars of stability and centrist in macro-economic policy and have credited multiparty systems with avoiding the periodic upheavals of policy cycles (Alesina \textit{et al.}, 1997; Mershon, 2000). However, once we pay attention to changes in cabinet leadership we can observe cycles that are so similar to those seen in Westminster systems as to be identical.

I conclude with an assessment of the overall research project. The significance of the tests described above is not simply to test or challenge an existing assumption of ministerial discretion. Rather, it is to clarify working models of coalition policy-making that are implicit in the study of voting and accountability. These include models of “compensatory” voting in multiparty systems (see Kedar, 2009) and analyses of economic voting (see Duch and Stevenson, 2008). In both cases, voter behavior is premised on assumptions regarding coalition policy-making. These studies are important milestones toward understanding how the voting choice is modified by the existence of multiple parties within cabinet. The significance of the findings reported here is to add an empirical basis to the assumptions that are implicit in those models. The contribution of the empirical tests and findings, in other words, is not just that they add direct evidence on coalition governance, where none existed before, but that they inform on-going research on coalition policy-making and voter response.

\section*{References}


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