


ORIGINAL ARTICLE

# The politics of (de)liberalization: studying partisan effects using mixed-effects models

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## Abstract

Liberalization is a perennial topic in politics and political science. We first review a broad scholarly debate, showing that the mainstream theories make rival and contradictory claims regarding the role of political parties in (de)liberalization reforms. We then develop a framework of conditional partisan influence, arguing that and under what conditions parties matter. We test our (and rival) propositions with a new dataset on (de)liberalization reforms in 23 democracies since 1973 covering several policy areas. Methodologically, we argue that existing quantitative studies are problematic: They rely on time-series cross-section models using country-year observations; but governments do not change annually, so that the number of observations is artificially inflated, resulting in incorrect estimates. We propose mixed-effects models instead, with country-year observations nested in cabinets, which are nested in countries and years. The results show under what conditions parties matter for (de)liberalization. More generally, the paper argues that mixed-effects models should become the new standard for studying partisan influences.

**Keywords:** Comparative political economy; de-liberalization; liberalization; mixed-effects models; partisan effects; party politics

## 1. Introduction

The relationship between the state and the market is one of the oldest topics in politics and political science. We know that countries differ in the relative weight they place on states or markets in providing public goods and services (for many: Esping-Andersen 1990; Hall and Soskice 2001). An important current topic is the degree to which this relationship has increasingly tilted toward markets. One line of research argues that liberalization has become the dominant direction and form of political reforms since the 1980s both in advanced economies (Streeck and Thelen, 2005; Streeck, 2009; Höpner *et al.*, 2011) and around the globe (Simmons and Elkins, 2004; Henisz *et al.*, 2005; Madariaga, 2020). While not neglecting country differences, this literature points to the commonalities of countries' developments and identifies a clear trend toward markets.

Liberalization, understood as the “politically enacted and legitimated removal of market barriers or loosening of restrictions on free markets” (Armingeon *et al.*, 2019: 8), is not confined to one policy area. Liberalization has been identified in, for example, the privatization of formerly public tasks (Levi-Faur, 2003; Obinger *et al.*, 2014), welfare retrenchment (Starke, 2006), a retreat of the interventionist state (Schneider and Häge, 2008; Zohlnhöfer *et al.*, 2017), labor market deregulation (Simoni and Vlandas, 2021), industrial relations, as well as more generally countries' type of capitalism and growth model (Baccaro and Howell, 2011; Hassel, 2014).

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A second line of research has qualified this “pure liberalization” story. First, not all countries have liberalized to the same extent, as the newly available “Liberalization Database” (Armingeon *et al.*, 2019) impressively shows. Second, liberalization takes different forms in different settings and is moderated by national contexts (Thelen, 2012). Third, liberalization is not the only game in town: A simultaneous countertrend is *de*-liberalization (Fill, 2018), understood as the “politically enacted and legitimated policy process that constrain [sic] the role of markets and promote restrictions and barriers on free markets and a stronger role of the state” (Armingeon *et al.*, 2019: 9).

Scholarly discussion is ongoing on whether, how, to what degree, and in which form liberalization and *de*-liberalization are happening. This paper adds to our understanding of the *politics* of liberalization and *de*-liberalization. More specifically, we focus on the partisan politics of (de)liberalization.

Our contribution is threefold. First, we show that hitherto no consensus has been reached in the existing literature on the role of parties in the politics of liberalization and its reversal (Zohlnhöfer *et al.*, 2017). Deriving expectations from the main theoretical approaches in political economy, public policy, and welfare state research, we show that existing work fundamentally disagrees on parties’ role in these processes. Our first contribution is to systematically point out these differences and to test them empirically against each other. Combining key insights, we propose and test a framework of conditional partisan influence.

Our second contribution is that we argue and show that existing macro-quantitative efforts to estimate partisan effects fall victim to a small but crucial methodological misspecification: Existing quantitative work – on (de)liberalization but also more generally on public policies or other outputs – typically applies time-series cross-section (TSCS) regressions to annual observation data (“country-years”), estimating partisan effects across countries and time.<sup>1</sup> Yet, governments do not change annually, but rather after elections or when cabinet changes take place. Statistically speaking, the common “country-year TSCS approach” thus artificially inflates the number of observations, resulting in incorrect estimates. Consequently, we do not know whether existing findings can be trusted. Switching instead to cabinets as the unit of analysis solves this problem (Obinger *et al.*, 2014; Garritzmann and Seng, 2016; Schmitt, 2016), but throws the baby out with the bathwater, since it ignores interesting information in variables that do change more quickly. Moreover, cabinets are harder to compare across countries and time, leading to comparability problems.

We propose a simple remedy: We set up a *mixed-effects model* where annual observations are nested in cabinets, which are nested in countries and time.<sup>2</sup> Mixed-effects models have several advantages compared to the established TSCS approaches, as discussed below. Elsewhere (Garritzmann and Seng, 2020), we applied this specification to total and disaggregated welfare spending and showed its superiority vis-à-vis conventional models.

Our third, empirical contribution is to use mixed-effects models to study the partisan politics of liberalization and *de*-liberalization reforms across the OECD countries between 1973 and 2013, using the unique “Liberalization Dataset” (Armingeon *et al.*, 2019). The data covers reforms in a wide range of policy areas from pensions and labor market policy to finance and corporate governance. The data not only covers the number of reforms and their direction (liberalizing or *de*-liberalizing), but also assesses their respective importance so that the resulting indices can be interpreted as a valid assessment of not only the direction but also the strength of liberalization and *de*-liberalization reforms (*ibid.*). Moreover, disaggregated measures for 13 different policy fields are available. We combine this data with information on the respective party-political makeup of countries’ cabinets, as well as of manifesto-based estimates of their party positions. We control for a range of alternative explanations, including socio-economic, institutional, and political factors.

<sup>1</sup>Obinger *et al.*’s (2014) exceptional use of cabinets as the unit of analysis is better, but also not ideal, as discussed below.

<sup>2</sup>Synonyms are the terms *hierarchical model* or *multilevel model*, but they imply that observations are vertically located on different levels, while this is not the case for cabinets, countries, and time.

We find that despite common narratives of decline, parties still have an important say in (de) liberalization reforms. Liberalization is systematically less and de-liberalization more likely under left governments in general and social democrats in particular. This is in line with partisan theory (Hibbs, 1977; Alt, 1985) and power resource theory (Korpi, 1983; Huber and Stephens, 2001) and at odds with claims about the demise of electoral politics and interpretations that argue that structural factors override domestic politics. We also show that partisan influence has *increased* over time and is conditioned by institutional factors, and why.

Next, we show that no consensus has yet been reached in the corresponding literature and develop expectations of conditional partisan influence. We then present our research design and argue that mixed-effects models should become the new standard in macro-quantitative analysis of partisan influence. Finally, we show results and conclude with a discussion on our work's implications and possible future extensions.

## 2. The partisan politics of (De)liberalization

Liberalization and de-liberalization affect core elements of our politico-economic systems and societies. Foundational work in political science, political economy, and political philosophy has discussed the state-market relationship for decades, if not centuries. Whether you read Hobbes, Rousseau, Hamilton, Marx, Polanyi, Schumpeter, Arendt, Dahl, Hall, Soskice, Thelen, or Skocpol, the state-market relationship and the politics surrounding it have always been a core topic in political science.

### 2.1 Structuralist approaches: the specter of neoliberalism and parties' impotence

More recent work has particularly concentrated on the post-1970s period, the so-called Silver Age of the Welfare State (after the "Golden Age" during the Trente Glorieuses). This period saw the simultaneous occurrence of several crucial changes that ostensibly have tilted the state-market relationship toward markets (Glyn, 2006; Streeck, 2015): The 1970s oil crises and subsequent recession, slowing growth rates, intensifying globalization, substantial tax and public debt rates, existing policy commitments and legacies, intensifying financialization, a shift toward new paradigms (e.g., new public management and neoliberalism), some ideological convergence of parties on the state-market dimension, and a political shift toward market-friendly and state-skeptical governments have led scholars to conclude that liberalization has become the dominant – and potentially even the only – direction of political reforms (Simmons and Elkins, 2004; Streeck and Thelen, 2005; Streeck, 2009, 2015; Baccaro and Howell, 2011; Höpner *et al.*, 2011).

According to these structuralist (and often liberalization-critical) analyses, liberalization has become an omnipresent and unavoidable force. While the form and pace might differ across contexts (Murillo, 2002; Thelen, 2012), the direction is clear: more liberalization. Domestic political factors (like parties) are often portrayed as either reluctant or unable to stop this trend, as the structural and ideational factors supposedly predominate.

The same expectation follows from *efficiency theory* (Scharpf, 1991; Genschel, 2002), one of the main globalization theories. It argues that globalization increases firms' mobility potential, resulting in global (tax) competition that ultimately ends in a "race-to-the-bottom" as countries have to decrease taxation, retrench their welfare states, and weaken the state vis-à-vis the market. Accordingly, this prominent line of research concludes that governing parties do *not* affect (de)liberalization reforms, as they are overpowered by (or willingly agree to) the international liberalization trend.

### 2.2 Partisan hypothesis: parties do matter

A second strand of literature fundamentally disagrees. Work in the tradition of the "partisan hypothesis" (Hibbs, 1977; Alt, 1985; Schmidt, 1996) and "power resource theory" (Korpi,

1983; Huber and Stephens, 2001) argues that parties matter. Parties represent different electorates with different socio-economic interests that parties transform into policy positions; this means that the party composition of government shapes the policies that are proposed and put into action. Liberalization should be more likely under market-friendly rightwing governments (especially economic liberals and fiscal conservatives) and less likely under left-of-center governments which favor an active state and de-commodification (Engler and Zohlnhöfer, 2019). Obinger *et al.* (2014) found support for this argument when looking at privatization, i.e. one important dimension of liberalization. Gingrich (2011) shows across a range of policy areas that parties do matter for the kind, form, and timing of “making markets.”

Another line of research has refined standard partisan theory, showing that political competition is increasingly multi-dimensional, as a second ideological dimension reflecting social values has emerged alongside the traditional state-market dimension (Kitschelt, 1994; Häusermann *et al.*, 2013). Given that (de)liberalization is mainly about economic aspects (at least in the way it is understood in most of the literature as well as in the data used here), one might expect that especially parties’ positions on the first ideological dimension (state-market) should be relevant.

Accordingly, this second line of research concludes that parties do matter and that partisan differences are related in particular to the economic dimension of the ideological space.

### **2.3 Historical institutionalism: parties used to matter, but are constrained now**

A third line of research takes an intermediate position between the two above-discussed perspectives: Historical institutionalists argue that policy-making is crucially shaped – and constrained – by political decisions made in the past, as positive feedback effects create path dependencies (Skocpol, 1992; Pierson, 1993). These arguments were helpful in explaining why – despite common prophecies of doom – welfare states have largely withheld retrenchment efforts and been “readjusted” rather than reduced (Esping-Andersen, 2002; Häusermann, 2010; Morel *et al.*, 2012; Hemerijck, 2017).

According to historical institutionalists, parties had played a crucial role in shaping countries’ politico-economic systems, especially in the early post-World War II period, but their influence has decreased over time, as path dependencies increasingly narrow governments’ room for maneuver (Boix, 1998; Kittel and Obinger, 2003; Kwon and Pontusson, 2010; Finseraas and Vernby, 2011; Garritzmann and Seng, 2016). Applied to liberalization and de-liberalization reforms, this line of research thus posits that parties used to matter for (de)liberalization, but that their effect has decreased.

Interestingly, we also find the opposite claim in the literature, namely that partisan effects have increased, as globalization intensifies. Schmitt and Zohlnhöfer (2019) argue – in line with compensation theory – that globalization has led to new welfare demands that left (but not right) parties respond to with de-liberalization reforms. Simultaneously, globalization might be a “legitimation strategy” (*ibid.*: 20) for parties favoring liberalization, making it more likely that they enact market-enhancing reforms. Thus, partisan differences should become more visible as globalization intensifies. Consequently, this line of research posits that partisan influence on (de)liberalization has not decreased, but increased over time.

### **2.4 Institutions matter and determine party politics**

Finally, important work in comparative political economy argues that institutions play an important role in the politics of (de)liberalization, potentially muting partisan effects. The “Varieties of Capitalism” (Hall and Soskice, 2001) approach identified different institutional settings that – if complementary – result in “comparative advantages”. More specifically, liberal market economies’ (LMEs) comparative advantage is an institutional environment that concentrates on

radical innovation, made possible by institutions such as deregulated labor markets, a top-down, management-focused company culture, a stock market-oriented banking and corporate governance system, and an education and social system focused on private investments and individual responsibilities. Further liberalization would thus contribute to LMEs' comparative advantage and should accordingly be the economic imperative for all governing parties, irrespective of their political stripe. The opposite is true for coordinated market economies (CMEs): Cooperation is made possible here by institutions such as a regulated labor market, long-term employment, a "Hausbanken"-centered banking system, a vocationally-oriented education system, and an encompassing de-commodifying social safety net. Liberalization would thus harm CMEs' comparative advantage, so that all relevant parties would push for (further) de-liberalization. It follows from this line of research that parties' positions are determined by their respective contexts, such that all governing parties support the prevailing type of capitalism, rendering party politics essentially irrelevant for (de)liberalization.

A related literature points to countries' "growth models" (Baccaro and Pontusson, 2016) or "growth regimes" (Hassel and Palier, 2021), i.e. "ensembles of institutionalized practices central to the process whereby a country secures economic prosperity" (Hall, 2021). Discussion is ongoing on the exact number of growth models/regimes, their characteristics, and respective politics, but we can tentatively derive expectations regarding the role of parties from this perspective.

The growth model literature falls into three camps. Some scholars (e.g., Bohle and Regan 2021) argue that electoral politics has no influence on the often low-salience, technical, complex topics of countries' growth models. Going back to Culpepper (2011), this implies that parties might matter in salient areas, but lack influence under "quiet politics." A second camp, the influential Baccaro & Pontusson variant of the growth model perspective, is largely focused on structural factors, but points to the role of "hegemonic social blocs," leaving some room open for political agency: Social blocs, understood by Baccaro and Pontusson in a (neo-) Gramscian way, are the respective predominant ("hegemonic") coalitions shaping policy-making, consisting mainly of the major economic actors in the dominant economic sectors, but also of the respective governing parties. We can thus conceptualize two types of change with regard to (de)liberalization: Either hegemonic social blocs bring the (de)liberalization policies more in line with their respective growth model (analogous to the VoC-story), or a change in the social bloc occurs, transforming also the growth model. Third, still other variants of the growth model paradigm (e.g., Haffert and Mertens, 2021; Hall 2021; Hassel and Palier, 2021) spell out a more actor-centered perspective, arguing that governing parties select a growth strategy, which is then translated into policies.

Taken together, this literature offers varying views on partisan effects: In some accounts party positions are determined by the respective growth models, in others parties can matter (to some degree) in shaping the respective growth model.

In sum, existing work fundamentally disagrees on the role of political agency in general, and parties in particular, for liberalization and de-liberalization reforms. Table 1 summarizes the rival claims. Depending on which part of the literature one reads, parties do not matter or they do; their influence is either decreased or increased; or their impact is shaped by institutions or not; and so on. This disagreement is at least partly due to the fact that most existing work uses established, but misleading tools to study the relationship, as we discuss below.

### **2.5 A conditional theory of partisan influence on liberalization: testable hypotheses**

So, what should we expect and formulate as testable hypotheses? In our reading and against the background of our previous work on the partisan politics of public policy, we find it more likely that parties do matter than that they do not, especially on crucial and salient issues such as the state-market relationship. Parties differ substantially and systematically in their views on the state and the market (Röth, 2018), as do voters (Engler and Zohlnhöfer, 2019); moreover, these issues are relevant for citizens and parties and are salient on the political agenda (Baumgartner *et al.*,

**Table 1.** Summary of rival arguments in the literature

	Theoretical approach	Expected partisan effect
Partisan effects?	Structuralist Partisan theory Multidimensional partisan theory	None: overpowered by capitalism Yes: left-right Yes: especially economic dimension
Variation of time?	Historical institutionalism Globalization (Compensation theory & legitimation framing)	Yes in past, but decreasing None/Limited in past, but increasing
Context effects?	Varieties of Capitalism 'Business-power" growth model perspective Social-bloc & actor-centered growth model perspective	None: type of capitalism determines None: growth model determines Yes, but rather limited

2019). Parties thus have both policy and vote incentives to try to make a difference. Moreover, we expect that particularly parties' position on the first dimension (the state-market relationship) matters for (de)liberalization. Though second-dimension politics (the socio-cultural dimension) are without doubt also highly important in today's party politics, it would seem to be less directly connected to economic (de)liberalization reforms. We thus expect:

*Hypothesis 1: Parties matter for liberalization and de-liberalization reforms. (Economically) Left parties lead to less liberalization and more de-liberalization; (economically) right parties lead to more liberalization and less de-liberalization.*

Moreover, given that the salience of these questions has, if anything, increased over time, we imagine that partisan politics has become an even more important factor. We find this plausible given the knowledge that parties are particularly relevant when issues are salient and citizens care about them (Culpepper, 2011, Busemeyer *et al.*, 2020), as they arguably do for these crucial "bread-and-butter" issues. Moreover, we agree with Schmitt and Zohlnhöfer (2019) that parties in the globalized, post-Cold War, neoliberal age have particularly high incentives and opportunities to affect (de)liberalization. Thus, we expect:

*Hypothesis 2: The partisan influence on (de)liberalization has increased over time.*

Finally, while we do not believe that contexts and institutions mute party politics, we posit that institutions can moderate partisan influence (Schmidt, 1996; Garritzmann *et al.*, 2021). Specifically, we agree with scholars of comparative capitalism that types of capitalist organization matter, but we expect these to moderate partisan influence rather than to render parties impotent. Arguably the most interesting cases are parties in "adverse contexts", i.e. market-friendly parties in CMEs and market-skeptical parties in LMEs.<sup>3</sup> These cases are particularly intriguing because these parties are likely to face the strongest cross-pressure between their policy goals and electorates, on the one hand, and the economic and functionalist pressures (most vocally articulated by business groups), on the other hand. The question thus becomes: Do parties still matter in these "adverse contexts" or are they rendered useless by the contextual effects? Extending Hypothesis 1, we lean toward the first position and expect parties to try to establish their preferred policy positions even if this means "swimming against the current" of economic pressures. Thus:

*Hypothesis 3: Partisan influence is moderated by the type of capitalism: Left (market-skeptical) parties matter particularly in liberal market economies, whereas right (market-friendly) parties matter particularly in coordinated market economies.*

<sup>3</sup>We focus here on the VoC approach, because arguments are less straightforward from a growth model perspective: In theory, both an export- and a demand-oriented approach could be supported by liberalization or de-liberalization reforms, depending on their respective contents.

### 3. Research design

This paper analyzes the role parties play in liberalization and de-liberalization reforms. We start by describing our data, before we explain why most existing quantitative comparative work has fallen victim to an important mis-specification, resulting in likely incorrect estimates. We then propose mixed-effects models as a solution.

#### 3.1 Measuring (de)liberalization

We want to test our propositions and prove the usefulness of our methodological setup in the widest possible sense, i.e., in a large country sample, over time, and covering many policy areas. The “Liberalization Database” (Armingeon *et al.*, 2019) provides a unique opportunity, offering detailed information on liberalization and de-liberalization reforms in 37 advanced capitalist democracies between 1973 and 2013, covering 13 policy areas.<sup>4</sup> The unit of analysis is individual policy reforms, coded with regard to their direction (liberalization or de-liberalization), policy field, and magnitude of change. The latter is done by assessing the substantial reform contents using a combination of Hall’s typology of first-, second-, and third-order change and Baumgartner’s concept of a “status quo change”, understood as “a major change that challenges an existing status quo of a given policy” (Fill, 2018: 3). For details on the data, case selection, and coding process see Armingeon *et al.* (2019).

To reduce complexity, Armingeon *et al.* (2019) offer two indices that cover for each country-year a weighted index of the number and magnitude of reforms, one for liberalization (“lib”), one for de-liberalization (“delib”). We use these as our main *dependent variables*. In additional tests we also studied the political dynamics in the individual policy fields, which is, however, for statistical reasons only possible in some areas.

We focus on 23 advanced democratic OECD economies, as these are relatively similar with regard to their socio-economic prosperity but provide interesting institutional and partisan variation.<sup>5</sup>

#### 3.2 Measuring party politics

Our main *independent variable* is the partisan composition of government. A huge literature discusses the pros and cons of different operationalizations of party preferences. Here, we employ three common measures because they capture different aspects of party politics. First, as much of the literature focuses on simple left-right differences, we use the *proportion of cabinet seats held by leftwing, center, and rightwing parties*, respectively (Armingeon *et al.*, 2014). We estimate models using the leftwing variable versus center or rightwing parties’ seat-shares (as the reference category) and check the results using instead the rightwing variable versus the other categories.

Second, we use the respective cabinet seat-shares of specific *party families* as a simple, but more fine-grained measure. Especially welfare state scholars have pointed to the fact that for policy-making there are substantive differences within the broader left and right camps, especially between Christian democrats and other rightwing parties, but also between social democrats and “new left” parties. In order to capture these differences and to speak to this debate, we look at the role of four party families: social democrats, Christian democrats, conservatives, and liberals.

Third, we use data from the Manifestos Project (Volkens *et al.*, 2011) to construct *manifesto-based measures*, which allow for a more detailed, time-varying operationalization of party preferences. More specifically, we follow conceptualizations of a two-dimensional ideological space and focus on the economic state-market dimension, which is particularly relevant for (de-)liberalization, as theorized above. Our measure is Röth’s (2018) transformation of the manifesto data,

<sup>4</sup>[www.liberalization.org](http://www.liberalization.org).

<sup>5</sup>Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, UK, and USA.

which provides the most convincing operationalization of the state-market dimension and has been successfully applied and validated in previous work (e.g., Kleider *et al.*, 2018; Röth 2018; Garritzmann *et al.*, 2021). Higher values on this index indicate more market-friendly positions and should be related with more liberalization and less de-liberalization. As a robustness test, we also used alternative measures, focusing e.g., on the emphasis parties place on “welfare expansion” and “welfare limitation”, respectively, in their manifestos. To come to cabinet positions, we weight each parties’ position on the economic dimension according to their respective cabinet seat-share.

All partisan composition variables are coded with a one-year lag, i.e., we assume that governments in year  $t$  affect expenditure levels in year  $t + 1$ , which seems reasonable given the lengthy legislative process of passing budgets.<sup>6</sup> As our model clusters observations at the cabinet level (discussed below), we have to worry less about political cycle effects, because in our setup the exact time point of a policy change within a government’s term is not relevant – if it happened within a cabinet’s duration, our approach picks it up.

### 3.3 Controls

We control for a range of alternative explanations found relevant in previous analyses: *GDP per capita*, *GDP growth*, *inflation*, *unemployment rate*, *share of elderly people (65+)*, *trade openness* and *deindustrialization* capture structural changes. These socio-economic variables are included without lags, assuming they have immediate effects on budgets, as governments use economic forecasts when deciding about their budgets. We control for *institutional constraints* (Schmidt’s (1996) 6-point index), because political institutions might affect (de)liberalization. *Voter turnout* picks up the argument that with larger electorates policy-makers might be more responsive to public demands. Finally, *union density* covers the potential influence of unions on (de)liberalization. For an overview of all data sources see Online Appendix Table A.

### 3.4 Estimation strategy: mixed-effects models

The established approach in macro-quantitative analyses of partisan effects on public policy (or on other outputs or outcomes) is to apply TSCS regressions to annual observation data (“country-years”). TSCSs are useful since they allow the researcher to simultaneously analyze variation across countries and time, while being able to control for alternative explanations. Much debate has centered on the question of the exact model specifications (for many: Beck and Katz 2011).

Our critique is more fundamental. The common TSCS models on annual observation data assume that each observation is independent. Statistically speaking, this is not true, however, as governments usually do not change annually but rather after elections or with cabinet redesigns. Using annual data without statistically acknowledging this data structure thus artificially inflates the number of observations, resulting in overconfident estimates. Thus, we posit that we cannot fully trust results based on such models and therefore lack trustworthy macro-quantitative analyses of the partisan politics of (de)liberalization.

Some scholars proposed using *cabinet terms* as the unit of analysis instead (Obinger *et al.*, 2014; Garritzmann and Seng, 2016; Schmitt, 2016). While cabinet approaches solve the problem of artificially inflated observations, they create new problems. First, aggregating to the level of cabinets throws away interesting information on constantly changing variables (e.g., socio-economic developments). It becomes harder to tell to what degree these matter. Second, countries differ starkly with regard to the government duration and time since democratization. Thus, comparisons of cabinets across countries and time become difficult, as some countries simply have twice as

<sup>6</sup>For the same reason, we do not consider governments that have been in office less than one year (yet, we obtain similar results when still including these cases). We control for these cases with an additional dummy variable (“succession”).



many cabinets and we might end up comparing a government in one country in the 1970s to another government in the 2010s. This is problematic given that reforms might be context-specific.

Consequently, neither using cabinet terms nor simply applying TSCS models to annual data is ideal. We posit that we can combine the strengths of both approaches and solve their respective weaknesses. *Mixed-effects models* allow for the simultaneous estimation of fixed effects and random effects (Henderson, 1975; McLean *et al.*, 1991). We can still use annual observations as the unit of analysis, but design a model that acknowledges the cross-classified nested structure of the data *within cabinets in countries and years*. An additional advantage is that we can decompose the variation on the different levels (countries, years, cabinets) to explore where the relevant variation comes from.

To the best of our knowledge, our study of partisan effects on public expenditure (Garritzmann and Seng, 2020) and subsequently Ennsner-Jedenastik's (2021) analysis of family policies and Seidl's (2022) study of knowledge investments are hitherto the only studies that made use of mixed-effects models for this purpose. We claim, more generally, that mixed-effects models are superior to existing approaches when one is interested in studying partisan influence on any kind of output or outcome in comparative macro-quantitative work. Mixed-effects models should thus become the new standard when studying partisan influences on anything in a macro-quantitative setup.

More specifically, our dependent variable ([de]liberalization) and the socio-economic control variables vary annually. Our main independent variable, the partisan composition of the government, varies on a cabinet-term basis. Finally, some control variables (the institutional variables) are largely time-invariant in the period under study. Thus, we design a model with annual observations nested in governments, but also nested in countries as well as in time points (years). The model is thus a cross-classified hierarchical model with random intercepts for governments, countries, and years:<sup>7</sup>

$$y_{igct} = \beta_0 + \beta_1 X_{igct} + \beta_2 W_{gct} + \beta_3 Z_c + \beta_4 S_t + \tau_{g00} + \tau_{0c0} + \tau_{00t} + \varepsilon_{igct}$$

$$\text{with } \tau_{g00} \sim N(0, \sigma_g^2) \quad \tau_{0c0} \sim N(0, \sigma_c^2) \quad \tau_{00t} \sim N(0, \sigma_t^2) \quad \varepsilon_{igct} \sim N(0, \sigma_\varepsilon^2)$$

where  $y$  is the dependent variable,  $X$  is a vector of annually observed control variables,  $W$  is a vector of cabinet-term independent variables,  $Z$  is a vector of country-specific independent variables,  $S$  is a vector of time-specific independent variables,  $\tau_{g00}$  is the government-level error term,  $\tau_{0c0}$  is the country-level error term,  $\tau_{00t}$  is the time-level error term, and  $\varepsilon_{igct}$  is the idiosyncratic error.

The time dimension  $S$  is modeled with cubic splines to account for non-linear dynamics (Beck *et al.*, 1998). The estimation was done by restricted maximum likelihood in order to avoid small sample bias of estimates and confidence intervals, as mentioned by Stegmueller (2013). We additionally corrected the denominator degrees of freedom with a Kenward-Roger approximation for tests in linear mixed models.

## 4. Results

We first present results for the overall sample before turning toward contextual factors (country and time variation) and policy-specific results.

### 4.1 Partisan influence on liberalization & de-liberalization

We start with liberalization. We begin by decomposing the variance between the different levels, looking at the intraclass correlation coefficients (ICCs) in an empty model. For liberalization, the

<sup>7</sup>Because of this cross-classified structure of the data, it is also no real option to use TSCS models with errors clustered at the cabinet level (we thank one of the reviewers for asking about this).

**Table 2.** Mixed-effects models on the liberalization index

Predictors	Model 1		Model 2		Model 3		Model 4	
	Estimates	p	Estimates	p	Estimates	p	Estimates	p
(Intercept)	-410.817	<b>0.019</b>	-423.380	<b>0.015</b>	-430.852	<b>0.014</b>	-396.819	<b>0.026</b>
Institutional constraints	-0.268	0.178	-0.251	0.212	-0.194	0.351	-0.224	0.281
Voter turnout	0.006	0.744	0.003	0.864	0.007	0.738	0.000	0.992
Government duration	0.001	0.064	0.001	0.058	0.001	0.080	0.001	0.080
Government succession	-0.440	0.264	-0.423	0.286	-0.559	0.165	-0.466	0.243
Trade openness	-0.013	<b>0.034</b>	-0.013	<b>0.040</b>	-0.011	0.105	-0.013	0.054
Unemployment rate	0.185	<b>0.004</b>	0.178	<b>0.006</b>	0.173	<b>0.009</b>	0.179	<b>0.007</b>
Elder population	0.259	<b>0.023</b>	0.242	<b>0.033</b>	0.209	0.070	0.204	0.078
Deindustrialization	-0.041	0.305	-0.039	0.340	-0.043	0.313	-0.036	0.391
Union density	-0.008	0.530	-0.008	0.505	-0.010	0.462	-0.008	0.554
Public debt	0.020	<b>0.023</b>	0.021	<b>0.019</b>	0.024	<b>0.010</b>	0.023	<b>0.014</b>
Public deficit	0.110	<b>0.029</b>	0.110	<b>0.028</b>	0.106	<b>0.036</b>	0.112	<b>0.027</b>
GDP per capita	0.023	0.589	0.017	0.687	0.026	0.548	0.025	0.568
GDP growth	-0.132	0.074	-0.130	0.078	-0.129	0.079	-0.132	0.074
Inflation	0.071	0.162	0.075	0.143	0.077	0.132	0.075	0.146
Spline 1	0.207	<b>0.019</b>	0.214	<b>0.015</b>	0.218	<b>0.014</b>	0.200	<b>0.027</b>
Spline 2	-0.141	0.054	-0.145	<b>0.047</b>	-0.152	<b>0.038</b>	-0.138	0.061
Left cabinet strength	-0.010	<b>0.032</b>						
Social dem. cabinet strength			-0.805	0.054				
Christian dem. cabinet strength					-0.821	0.258		
Cabinet econ. position							0.006	0.596
<i>Random effects</i>								
$\sigma^2$	9.81		9.78		9.79		9.80	
$\tau_{g00}$ (government)	2.12		2.19		2.24		2.24	
$\tau_{0c0}$ (country)	0.51		0.55		0.64		0.65	
$\tau_{00t}$ (time)	0.52		0.50		0.47		0.47	
ICC	0.24		0.25		0.26		0.26	
$N_{government}$	23		23		23		23	
$N_{country}$	253		253		253		253	
$N_{time}$	39		39		39		39	
Observations	690		690		690		690	
Marginal $R^2$ /Conditional $R^2$	0.187/0.385		0.185/0.388		0.180/0.390		0.179/0.389	

ICCs are 0.22 for cabinets, 0.05 for years, and 0.08 for countries. The largest part of the variance thus comes from the cabinet level, pointing to potential partisan influence.

Do the regressions reveal such partisan influences? **Table 2** shows our results: Leftwing governments (using the left-center-right codings in Model 1) are less prone to liberalize, significantly at conventional levels ( $p = 0.032$ ). A similar finding appears when we look at the role of social democrats (Model 2), though the estimation is slightly less precise ( $p = 0.054$ ). For Christian democrats (Model 3) there is no statistically distinguishable association with liberalization, in line with arguments highlighting their more centrist economic position. Finally, our manifesto-based item (Model 4) reveals a small positive, but insignificant coefficient. Substantively this implies that how parties talk about economic issues in their manifestos does *not* translate into policy activity regarding liberalization. Using alternative manifesto-based measures confirms this result.

Overall, the results support the “parties-matter” hypothesis (Hypothesis 1): The partisan composition of government does matter and the coefficients point in the expected direction, as left-of-center governments are less likely to liberalize. There is no evidence, however, supporting the argument that this effect is mainly driven by parties’ positions on the economic dimension. Vice versa, this implies that the politics of liberalization are far from being a pure economic story – parties’ positions on the socio-cultural dimension apparently also play a crucial role, in line with arguments about second-dimension politics also being relevant for political economy analyses.

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**Table 3.** Mixed-effects models on the de-liberalization index

Predictors	Model 5		Model 6		Model 7		Model 8	
	Estimates	p	Estimates	p	Estimates	p	Estimates	p
(Intercept)	93.609	0.329	100.719	0.293	99.568	0.306	96.452	0.329
Institutional constraints	0.142	0.368	0.135	0.391	0.135	0.398	0.134	0.399
Voter turnout	-0.036	<b>0.023</b>	-0.035	<b>0.027</b>	-0.035	<b>0.027</b>	-0.034	<b>0.030</b>
Government duration	0.001	0.068	0.000	0.078	0.001	0.060	0.001	0.060
Government succession	-0.524	<b>0.021</b>	-0.535	<b>0.019</b>	-0.501	<b>0.031</b>	-0.506	<b>0.028</b>
Trade openness	0.004	0.400	0.004	0.402	0.004	0.443	0.004	0.434
Unemployment rate	-0.001	0.975	0.003	0.942	0.005	0.914	0.004	0.919
Elder population	-0.121	0.148	-0.112	0.180	-0.104	0.217	-0.103	0.223
Deindustrialization	0.007	0.825	0.006	0.847	0.005	0.882	0.005	0.885
Public debt	0.005	0.429	0.004	0.479	0.004	0.527	0.004	0.522
Public deficit	-0.011	0.717	-0.010	0.740	-0.007	0.802	-0.008	0.793
GDP per capita	-0.047	0.075	-0.044	0.097	-0.049	0.066	-0.050	0.065
GDP growth	0.003	0.945	0.001	0.977	0.001	0.989	0.001	0.983
Inflation	0.032	0.289	0.030	0.312	0.030	0.323	0.030	0.325
Spline 1	-0.045	0.361	-0.048	0.322	-0.048	0.336	-0.046	0.360
Spline 2	0.077	<b>0.037</b>	0.079	<b>0.033</b>	0.081	<b>0.031</b>	0.080	<b>0.036</b>
Left cabinet strength	0.006	<b>0.029</b>						
Social dem. cabinet strength			0.541	<b>0.022</b>				
Christian dem. cabinet strength					0.023	0.955		
Cabinet econ. position							-0.001	0.879
<i>Random effects</i>								
$\sigma^2$	4.28		4.29		4.28		4.28	
$\tau_{g00}$ (government)	0.28		0.27		0.32		0.32	
$\tau_{0c0}$ (country)	1.00		0.99		1.01		1.00	
$\tau_{00t}$ (time)	0.03		0.03		0.03		0.03	
ICC	0.23		0.23		0.24		0.24	
$N_{\text{government}}$	23		23		23		23	
$N_{\text{country}}$	258		258		258		258	
$N_{\text{time}}$	39		39		39		39	
Observations	709		709		709		709	
Marginal $R^2$ /Conditional $R^2$	0.085 / 0.299		0.088 / 0.299		0.085 / 0.306		0.086 / 0.304	

Table 3 shows results for *de*-liberalization.<sup>8</sup> We again start by decomposing the variance. The ICCs are 0.07 for cabinets, 0.01 for years, and 0.17 for countries. Thus, the largest part of the variance appears at the country level, but there is also variation at the cabinet level. Substantively, we find a similar pattern as for liberalization: Governing left-of-center parties in general ( $\beta = 0.006$ ,  $p = 0.029$ ; Model 5) – and social democrats in particular ( $\beta = 0.541$ ,  $p = 0.022$ ; Model 6) – are positively related with *de*-liberalization. In line with the parties-do-matter Hypothesis 1, leftwing governments enact more *de*-liberalization reforms, arguably in line with the socio-economic and ideological preferences of their electorates. While neither Christian democrats (Model 7) nor liberal parties significantly affect *de*-liberalization, conservative parties make *de*-liberalization less likely, especially since 1993 (see discussion below and Online Appendix Table B). The manifesto-based item (Model 8) points in the theorized direction but remains insignificant. Once again, this implies that the politics of *de*-liberalization do not only (or maybe not even mainly) happen along the economic dimension.

A look at the control variables and the model fit shows that the models are better able to explain liberalization than *de*-liberalization reforms. In particular, some of the socio-economic variables are systematically related to liberalization efforts: Liberalization is more likely under higher unemployment, debt, deficits, and more open economies. While the latter finding supports arguments about globalization contributing to a retreat of the state (“efficiency theory”),

<sup>8</sup>Union density is excluded as a control here, since it leads to statistical convergence problems and was insignificantly related to *de*-liberalization.

the former supports functionalist interpretations pointing to economic pressure as a trigger (or rationale) for liberalization in line with structuralist explanations. Liberalization generally is more likely when the socio-economic situation is more pressing. Besides parties and socio-economics, hardly any other factors are systematically related to de-liberalization.

#### 4.2 Contextual effects

Next, we go beyond “average effects” in the pooled sample and explore effect heterogeneity. First, we test whether partisan influence on (de)liberalization changes over time (Hypothesis 2) by splitting the sample in halves (1973–1992, 1993–2012). More fine-grained splits are unfortunately not possible due to the reduced number of cases, resulting in convergence problems. The cut-off point in the early 1990s is somewhat arbitrary, but coincides with important structural changes such as the collapse of the Soviet Union, the geographical spread of capitalism and liberalism, intensifying globalization and EU integration, and the strengthening of “neoliberalism” as a policy discourse, connected with ideas about privatization, deregulation, and new public management.<sup>9</sup>

The findings (Table 4) confirm Hypothesis 2. Before 1993 we do *not* find any partisan influence on de-liberalization (Models 13–16), and for liberalization only one of our partisan measures (the manifesto-based item) is significant (Models 9–12). After 1993, we detect *more* systematic influence: Leftwing cabinets (and social democrats in particular) are significantly associated with less liberalization and more de-liberalization (Models 17–24). This is a remarkable result that challenges historical institutionalists’ assumption of decreasing partisan effects and confirms Schmitt and Zohlnhöfer’s (2019) finding of increased party influence. As argued above, partisan influence might have increased due to globalization and other structural changes and/or because the salience of these bread-and-butter topics has further increased, providing parties with additional incentives to try to make a difference.

Do institutions moderate parties’ influence? We analyze whether partisan influence differs between types of capitalism and types of growth models, as suggested by Hypothesis 3. While the results are intriguing, they should be treated with some caution, since due to the reduced number of observations in the split sample, some models have convergence problems.

Starting with *types of capitalism*, the results are remarkable<sup>10</sup>. We find noteworthy partisan influence only for liberalization in CMEs and for de-liberalization in LMEs. In CMEs, left parties ( $\beta = -0.012$ ;  $p = 0.038$ ) in general and social democrats in particular ( $\beta = -1.151$ ;  $p = 0.033$ ) are less likely to liberalize. In LMEs, left parties in general ( $\beta = 0.017$ ;  $p = 0.001$ ) and social democrats in particular ( $\beta = 1.231$ ;  $p = 0.003$ ) are more likely to de-liberalize.<sup>11</sup> We also find that in LMEs parties with more market-friendly manifestos are less likely to de-liberalize ( $\beta = -0.042$ ;  $p = 0.042$ ). Substantially, this supports our expectation about “adverse contexts”: While a functionalist logic speaks in favor of liberalization in LMEs and de-liberalization in CMEs, we find that parties are particularly relevant when working against these pressures. Confirming Hypothesis 3, parties can and do work “against” socio-economic pressures and do champion their and their voters’ preferences.

We also test whether partisan influence differs across different *growth models*. As noted above, discussion about the number and kinds of growth models is ongoing: While some scholars distinguish two main groups (Baccaro and Pontusson, 2016), others identify more fine-grained types (e.g., Hassel and Palier 2021). Here, we enter a trade-off: While more fine-grained typologies cover country differences better, doing so results in empirical feasibility problems, as the number of observations becomes too small for the models to converge. When distinguishing only two groups (export- and demand-led regimes), most models converge and point to findings similar

<sup>9</sup>We also explored interactions between the key independent variables with time but the interaction effects were not significant.

<sup>10</sup>Our country codings for the VoCs and Growth Models can be seen in Table G in the Online Appendix.

<sup>11</sup>Some control variables had to be excluded due to convergence problems with LMEs.

**Table 4.** Mixed-effects models on liberalization and de-liberalization, split sample 1973–1992 and 1993–2012 (16 different models with the same setup as in Tables 2 and 3, but controls and diagnostics not displayed)

Liberalization 1973–1992									
	Model 9		Model 10		Model 11		Model 12		
Left cabinet strength	–0.007	0.266							
Social dem. cabinet strength			–0.209	0.705					
Christian dem. cabinet strength					0.992	0.273			
Cabinet econ. position							–0.030	<b>0.037</b>	
De-liberalization 1973–1992									
	Model 13		Model 14		Model 15		Model 16		
Left cabinet strength	0.001	0.843							
Social dem. cabinet strength			0.037	0.915					
Christian dem. cabinet strength					0.752	0.189			
Cabinet econ. position							–0.002	0.818	
Liberalization 1993–2012 <sup>12</sup>									
	Model 17		Model 18		Model 19		Model 20		
Left cabinet strength	–0.015	<b>0.014</b>							
Social dem. cabinet strength			–1.451	<b>0.011</b>					
Christian dem. cabinet strength					–0.781	0.504			
Cabinet econ. position							0.030	0.134	
De-liberalization 1993–2012									
	Model 21		Model 22		Model 23		Model 24		
Left cabinet strength	0.010	<b>0.007</b>							
Social dem. cabinet strength			1.201	<b>0.001</b>					
Christian dem. cabinet strength					–0.724	0.304			
Cabinet econ. position							–0.018	0.134	

to those in the pooled sample (in Tables 2 and 3), but no longer reach conventional levels of significance, likely because of the reduced number of observations. Thus, the results do not lend support to the argument that growth models mute partisan influence or that partisan influence differs across growth models. Rather, parties seem to matter irrespective of the type of growth model, rather in line with the argument that political agency is relevant for politico-economic decisions and institutions.

As another extension, we also explore the political dynamics in the thirteen individual policy areas. A challenge is that the data is not available for all policy areas in all countries, resulting in statistical convergence problems in many areas. Moreover, even when the models do converge, they are often estimated on a smaller sample making it harder to precisely estimate potential partisan influence. Still, a careful look at the empirical findings tends to support the main story: The party-political dynamics appear to work quite similarly in the different areas (see Online Appendix Tables C–F). Put differently, we do not see evidence for any policy-specific story claiming, for example, that parties matter less in more technical issue areas or for regulation or in areas with smaller policy constituencies, or the like.

## 5. Concluding discussion

This paper made three contributions. First, we derived theoretical expectations on the role of parties in (de)liberalization reforms from the dominant models in political science and particularly comparative political economy, showing that the literature hitherto has not found consensus on the crucial question of partisan influence on the state-market nexus. Second, we

<sup>12</sup>The results since 1993 have to be taken with caution due to convergence problems.

made a methodological contribution, arguing that the mainstream approach in existing macro-comparative work (TSCS models on annual observation data) is misleading, and proposed mixed-effects models as a superior solution. We recommend that scholars studying party influence on anything, be it policies or other outputs or outcomes, use mixed-effects models as the new methodological standard, since these have several advantages over alternative setups. Third, we applied our mixed-effects setup to a unique dataset of (de)liberalization reforms across countries, policy areas, and time.

Our results paint a more differentiated picture than any of the mainstream theories alone would predict: We find clear evidence that parties *do* matter, confirming arguments about the relevance of electoral politics – and this despite globalization, deindustrialization, technological change, the emergence of the knowledge economy, electoral realignment, changed political competition, policy legacies, permanent fiscal austerity, and other large-scale socio-economic and political transformations. Liberalization is less and de-liberalization more likely under left governments in general and social democratic parties in particular. This supports standard partisan theory and power resource theory (Hibbs, 1977; Alt, 1985; Huber and Stephens, 2001) and challenges claims about the demise of electoral politics.

Moreover, in contrast to powerful historical institutionalist arguments about path dependencies narrowing political choice, we found that partisan influence has become *stronger* over time. This is an important finding for scholars and supporters of representative democracy and suggests that we need to understand better under what conditions, in which ways, and why elected representatives have become more or less constrained over time. Future work could focus more on the exact conditions that affect parties' interest, incentives, opportunities, and constraints to influencing policy-making.

We also found support for some institutionalist arguments. While comparative capitalism scholars go too far in claiming that parties are irrelevant and policies are pre-determined by countries' types of capitalism or growth model, there is evidence that partisan influence is stronger in some contexts than others: Parties are particularly important for *liberalization* in *coordinated* market economies and for *de-liberalization* in *liberal* market economies. That is, parties are particularly relevant in adverse environments, i.e., when parties are in office that ideologically disagree with the dominant type of capitalism. While functionalist pressures are at play, parties are not determined by these and can "swim against the current." More generally this also implies that parties can work against dominant institutional complementarities, and in fact do so, arguably when their respective electorates would benefit more from a different politico-economic institutional setting. Normatively speaking, this is a promising finding for proponents of representative democracy, as it underlines that there is room for political agency, illustrated here with the case of (de)liberalization that is at the heart of countries' politico-economic systems.

Finally, our findings also help to reconcile a major ongoing debate in comparative politics in general and comparative political economy in particular: A (more or less explicit) cleavage has emerged between scholars of electoral politics, on the one hand, and scholars of producer group and interest group politics, on the other. While the former highlight the role of public opinion and parties, the latter downplay the role of electoral politics and point to producer groups, interest groups, and structural factors. In our view, this debate is - in this confrontational form - a dead end. Rather than studying whether electoral politics *or* producer groups matter, we should explore better *under what conditions* either factor is more relevant and how actors, institutions, and socio-economic factors interact (see also Culpepper, 2011; Busemeyer *et al.*, 2020; Garritzmann *et al.*, 2021). In this sense, the debate could be much more productive. Our findings underpin these arguments empirically, showing that actors and politico-economic institutions interact and jointly shape public policy and countries' political economies.

**Supplementary material.** The supplementary material for this article can be found at <https://doi.org/10.1017/psrm.2023.35>. To obtain replication material for this article, <https://doi.org/10.7910/DVN/YJYVGM>

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