

Gamson Going Global? Cabinet Proportionality in Comparative Perspective

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Abstract: We conduct a global, large- N analysis of proportionality in the partisan distribution of cabinet portfolios. Formulated in the context of postwar Western European parliamentary democracy, Gamson’s Law predicts that parties joining a coalition government will receive cabinet ministries in direct proportion to the seats they are contributing to the coalition on the floor of the legislature. Using a sample of 1551 country-years of coalitional government in 97 countries from 1966 to 2019, and comparing all main constitutional formats (parliamentary, presidential, and semi-presidential), we find that Gamson’s Law does not travel well outside its context of origin. Among the constitutional predictors of cabinet proportionality, we find that pure presidentialism is a major outlier, with an exaggerated form of formateur advantage. Introducing party-system and assembly-level predictors to the debate, we find that party institutionalization tends to increase fairness in portfolio allocation within parliamentary systems only.

Keywords: Gamson’s Law, cabinets, portfolios, parties, presidentialism, parliamentarism, semi-presidentialism.

Introduction

Our understanding of proportionality in coalition government is imbalanced. The literature on cabinet proportionality—i.e. the fairness of cabinet payoffs to legislative parties participating in coalition governments—has historically been focused on parliamentary systems. In pure parliamentarism, scholars have generally found strong support for “Gamson’s Law” qualified by occasional overrepresentation of small parties (Browne and Franklin, 1973; Warwick and Druckman, 2006; Cox, 2021). As the literature broadened to include semi-presidentialism, however, scholars found a larger “formateur bonus” for coalition-proposing parties holding the presidency, conditional on the degree of constitutional powers afforded to the president

(Bucur, 2020). In pure presidential systems, the emerging literature on coalitional presidentialism has found a consistently large and disproportionate payoff for the party of the unipersonal executive, who is always the formateur in such systems (Altman, 2000; Amorim Neto, 2006; Chaisty et al., 2018).

This uneven applicability of Gamson's Law to semi-presidential and presidential systems is of more than mere mathematical curiosity. Cabinet proportionality clearly matters. As research on presidentialism has shown, the way coalitions are constructed can have direct implications for a range of real-world political and policy challenges. These include coalition discipline in roll-call voting (Amorim Neto, 2002), economic reforms (Mejía-Acosta, 2009), aggregate government expenditure (Bertholini and Pereira 2017), and even grand corruption (Raile et al., 2011).

Despite ample evidence that cabinet composition matters for macropolitical outcomes, the literatures on parliamentarism, semi-presidentialism, and pure presidentialism have largely operated in isolation, making it difficult to assess variation in the extent of cabinet proportionality across constitutional formats. Few studies have addressed the motivations of the key actors (formateurs, parties, and assemblies) in an integrated comparative framework, assuming instead that behavioural incentives within each constitutional format are self-evident. Compounding this problem is that most studies have tended to focus on a single world region, eschewing comparative or large-*N* analysis.

The literature on cabinet proportionality is therefore in need of several correctives. It requires a theoretical vocabulary that is not restricted to parliamentarism; it needs to look “under the bonnet” of invariant constitutional formats in order to unveil more dynamic party-level and assembly-level influences on proportionality; and it needs to take Gamson's Law out of its comfort zone in Western Europe—a goal that can only be realized by comparative and large-*N* research designs. From this starting point, we ask the following questions: what

factors shape cabinet proportionality across world regions and across constitutional designs? What characteristics of party systems and/or legislatures might boost or constrain the advantage of the formateur? And more generally, just how well does Gamson's Law travel? As a preliminary step toward answering these questions, we provide the most comprehensive large-*N*, cross-national exploration of cabinet proportionality across multiple executive formats and party systems. We do so by expanding the new WhoGov dataset (Nyrup and Bramwell, 2020) to include legislative seats shares of all cabinet-represented parties. This allows us to measure cabinet proportionality in 1551 country-years of competitive politics in 97 countries in the period from 1966 to 2019. The inclusion of country-year observations over the entire period enables us to track variation in cabinet composition between election years—a phenomenon that can be especially significant in presidential systems, given the tendency of presidential formateurs to tinker with cabinet composition on a frequent basis (Chaisty et al., 2018: 129). To this dataset, we also add party-system and assembly-level covariates (drawn from the V-Dem and V-Party datasets) to examine the determinants of cabinet proportionality within each broad executive format.¹

Our key findings are as follows. First, confirming previous studies (e.g. Amorim and Samuels, 2010), we find that presidentialism is the sensational outlier among constitutional types: it offers the least proportionality in portfolio allocation, which is a consequence of the fewest constraints on the formateurs of coalitions (i.e. presidents). Second, parliamentary and semi-presidential systems are more similar when it comes to cabinet proportionality and its determinants, although important differences remain. Third, party institutionalization in a generic sense (a composite of strength of party organizations, links to civil society, party ID among voters, coherence of party platforms and ideologies, etc.) strongly increases proportionality in parliamentary systems, but has no beneficial effects on proportionality in

¹ We are grateful to Daniel Barker Flores for assistance in assembling this dataset.

presidential systems, and is highly sensitive to regional effects in semi-presidential systems. Fifth, although existing datasets have only crude measures of portfolio salience (a longstanding deficiency of the literature), we find evidence that formateurs in pure presidentialism are more likely to reserve the most prestigious cabinet posts for their own parties. Sixth and finally, we find that Gamson's Law does not travel especially well, whether across constitutional types or across world regions. The best fit of this "law" is not just with parliamentary systems, but particularly with *European* parliamentary systems. Where pure parliamentarism exists outside of Europe, Gamsonian principles are less ingrained. These findings are robust to controls on the level of political democracy.

What Do We Know About Cabinet Proportionality and Deviations From It?

Any discussion of proportionality invariably begins with William Gamson's early theory of coalition formation.² According to Gamson (1961: 376), "any participant will expect others to demand from a coalition a share of the payoff proportional to the amount of resources which they contribute to a coalition." Starting as an intuitive proposition, this statement was gradually recast as a "law" in the wake of Browne and Franklin's (1973) classic observational study of European portfolio allocation in the 1950s and 1960s. The law-like reappraisal of Gamson turned entirely on Browne and Franklin's operationalization of "resources" in the quote above, which they measured as the share of legislative seats held ("contributed") by each party in the coalition. Within coalition governments in parliamentary systems, they found the correlation between portfolio shares and seat shares to be nearly perfect, a finding that (with various disclaimers attached) has been confirmed empirically time and time again, mainly in the Western European context (e.g. Schofield and Laver, 1985; Warwick and Druckman, 2001). While this relationship may not be a "law" in the strict

² Early in more ways than one: Gamson was 26 when he wrote this paper.

sense of the term (Indridason, 2015), it has nonetheless been described as “perhaps the strongest empirical finding in political science” (Warwick and Druckman 2006: 635).

It is beyond the scope of this paper to review the vast secondary literature on proportionality in portfolio allocation. However, we draw attention to four core elements of this body of research. First, as noted above, Gamson’s Law has strong empirical support in parliamentary democracies, on which virtually all extant scholarship is based. Second, in parliamentary coalition governments, the observed deviations from proportionality have mostly come in the form of the “small party bias,” meaning that very small coalition partners tend to do slightly better than one would expect from a linear interpretation of Gamson’s Law (Browne and Franklin, 1973; Warwick and Druckman, 2006). Some have referred to this small-party asterisk on proportionality as “modified Gamson’s Law” (e.g. Cox, 2021). Third, in parliamentarism there has been little or no empirical support for the idea of formateur advantage—which makes some sense given what we know about the minor overrepresentation of small parties (this practice already suggests some implicit forbearance by the formateur party).

The fourth and most intriguing aspect of this research programme concerns the long-running attempt to uncover solid theoretical foundations for Gamson’s Law (Falcó-Gimeno and Indridason, 2013). In the parliamentary literature, formal models of legislative bargaining have not fared well. So-called “proposer” models, or alternating-offer games (e.g. Baron and Ferejohn, 1989; Ansolabehere et al., 2005), suggest that the formateur should be advantaged by their take-it-or-leave-it control over the negotiation process. Empirical adaptations of this idea eschew the traditional focus on seat shares in the legislature (the Browne and Franklin interpretation of Gamsonian resources) in favour of “bargaining weights” (the extent to which a given party is pivotal to a winning coalition). Yet using either or both operationalizations, empirical evidence of formateur advantage has generally been found

lacking in parliamentarism, even in more recent work that attempts to correct for portfolio salience (Warwick and Druckman 2001, 2006; Bucur, 2016). Warwick and Druckman (2006) note this disconnect between empirical and theoretical work and name it the “portfolio allocation paradox”—in other words, proportionality shouldn’t exist but does.

In the nearly two decades since Warwick and Druckman first posed this paradox, a number of scholars have attempted to resolve it. Several have considered the possibility that Gamson’s Law is nothing more than a social norm of “fairness.”³ In a paired comparison of Sweden and Germany, Bäck et al. (2009) find little support for a social norm in the strict sense of the term, but do find that proportionality “serves as a bargaining convention for the actors involved, thus rendering proportional payoffs more likely.” In contrast, Cutler et al. (2014) argue that there is indeed a proportionality norm in coalition formation, but that it is observed mainly as a conflict-defusing device *after* the difficult work of policy bargaining has already taken place. Ecker and Meyer (2019) take the policy payoff idea one step further. Matching the content of party manifestos to observed portfolio allocations, they argue that policy fairness is more likely to be achieved when parties already consent to apportionment of cabinet positions that are proportional to party size—in other words, to the terms of Gamson’s Law. Falcó-Gimeno and Indridason (2013) make a different but compatible claim about proportionality: that it is almost always the fastest and cleanest solution to bargaining situations characterized by high levels of complexity and uncertainty. More recently, Martin and Vanberg (2020) have focused on the optics of coalitional negotiations, developing a theory that they call “bargaining before an audience.” If parties are worried that their supporters may see them as ineffective negotiators, they may choose to accept proportionality

³ The norm hypothesis might be the most accurate translation of what Gamson really wrote in 1961. His proposition was not about proportional outcomes per se, but about the starting assumptions made by players about the likely behaviour of others: “Any participant *will expect others* to demand from a coalition a share of the payoff proportional to the amount of resources which they contribute to a coalition” (italics added).

of cabinet posts as a safely defensible outcome—while at the same time pushing hard for concessions on less easily observable issues.

All focusing on parliamentary regimes, these more recent contributions depict Gamson's Law as something of a heuristic and/or a "default" outcome in the composition of coalition governments: when the starting point is some notion of proportionality, then it is not surprising that the end point is something resembling proportionality. If a law is a default scenario and a default scenario is a law, then this circularity may bring us no closer to providing the desired theoretical microfoundations for Gamsonian proportionality.

Three Logics of Coalition Formation: Comparing Constitutional Formats

Scholarship on Gamson's Law often assumes that there is a single institutional ecosystem for cabinet composition, a bias that may be forgiven given the postwar Western European origins of this literature. At the beginning of the Third Wave of democratization in the late 1970s, well over half of the world's political democracies were parliamentary systems. However, by 2010 nearly two-thirds of existing democracies had directly elected presidents of some kind (Samuels and Shugart 2010: 5). Instauration of new parliamentary democracies with ceremonial or indirectly elected heads of state is now exceedingly rare, while semi-presidential and presidential formats are on the rise across the globe. Theories of cabinet composition need to be updated to reflect this reality. Revising theory requires identification of the relevant actors (in this case, formateurs, political parties, and legislative assemblies) and recognizing how their motivations vary across three prominent constitutional types.

In discussing executive formats, we start with noncontroversial assumptions: formateurs should want to exaggerate their natural first-mover advantage, and parties should aim for the best deal they can get. Parties will want to maximize the number of ministers at the cabinet table and will oppose favouritism to other parties. The degree to which parties can

influence the formateur will depend, at least in part, on broad constitutional characteristics pertaining to government formation, assembly confidence and executive discretion.

Parliamentarism is familiar and its principles are depicted in the vast literature cited above (see also Lijphart, 2012). As the name suggests, parliamentarism rests on the centrality of the elected assembly, of which both formateurs and ministers are working members. The head of state normally invites the leader of the largest party to attempt to form a government. In non-majoritarian configurations of seats (the modal outcome in the parliamentary world), automatic success in government formation is not guaranteed, and therefore the number of potential formateurs is greater than one. Governments generally depend on the support of a majority of the legislature in order to take office and to remain in office. Minority governments can also survive, but normally with commitments from key opposition parties not to bring down the government. In both majority and minority scenarios, prime ministers are always subject to confidence motions. When coalition government becomes necessary under this constitutional format, political parties naturally find their bargaining power enhanced. Given that they are central to government formation and government termination, parties must be cultivated carefully. Each party will assess the essential fairness of any power-sharing arrangements, observing who gets what (the original insight of Gamson). Thus it is perhaps not surprising that when formateurs propose a coalition, they tend to treat their allies proportionally when allocating ministerial portfolios.

Presidential democracy works very differently (Linz, 1994). Elections for the head of government (president) and for the legislature are independent of each other, meaning that the executive and legislature have “separate origin and separate survival” (Shugart and Carey, 1992). In contrast to parliamentary systems, the number of potential formateurs is consistently one, since only the directly elected president can exercise this role. The president does not require political support in the legislative assembly in order to take office, and once

inaugurated enjoys a fixed term. In presidential systems, the absence of a vote of no confidence means that the head of government (president) is far less dependent on the support of coalition partners than is the equivalent figure (prime minister) in parliamentary systems (Silva, 2023: 938). The incentive for the president to be “fair” in portfolio allocation is consequently diminished. Moreover, presidential systems generally lack a requirement that ministers be members of the legislature. This means that non-partisan or “technocratic” ministers are quite common, and such individuals may often be awarded portfolios of high prestige and/or of great personal interest to the president (Altman, 2000; Chaisty et al., 2018). Finally, the president is by no means the “first among equals” that is supposedly the case for prime ministers operating under collective responsibility. Rather, the president is a unipersonal executive who is directly elected in a nationwide constituency, and who individually composes and directs the cabinet, leading to an elevated level of discretion in portfolio allocation.

Semi-presidentialism is a mixed constitutional type that blends characteristics of both presidentialism and parliamentarism (Duverger, 1980; Schleiter and Morgan-Jones, 2009; Elgie, 2011). The requirement of parliamentary confidence means that the legislature is the relevant locus of coalition formation, thus enhancing the centrality of political parties. The prime minister is always important, but there is also a directly elected president with considerable constitutional powers, and whose popular legitimacy is consistent with some role in policymaking. The identity of the *de facto* formateur may vary. When coalitions are necessary and the president dominates the party proposing an interparty alliance for government formation, the president is likely to be the leading architect of the future government, thus elevating presidential discretion over portfolio allocation. This scenario of political alignment is closer to pure presidentialism, with its higher expectation of a “formateur bonus.” However, whenever the results of legislative elections require that the

president appoint a prime minister from a different or even an opposition party (“cohabitation”), the role of the president in cabinet composition is weak or nonexistent.⁴ This scenario is much closer to parliamentarism, maximizing the negotiating potential of political parties and moving the system closer to a Gamsonian world. Thus, the relevance of Gamson’s Law to semi-presidentialism thus depends on who is the effective formateur, i.e. whether the system is “leaning presidential” or “leaning parliamentary.” Empirically, the former scenario is far more common in the real world of semi-presidentialism.⁵

Unpacking these three constitutional logics leads us to follow previous studies (e.g. Amorim Neto and Samuels, 2010) and propose a rather straightforward hypothesis about the binary comparison between presidentialism and parliamentarism:

H1: Cabinet proportionality is likely to be lower in presidential systems than in parliamentary systems.

We further expect that semi-presidential systems will stand in an intermediate position between pure presidentialism and pure parliamentarism. We note that some prior studies have assumed that the only institutional variable that really matters in shaping cabinet proportionality is the vote of no confidence, and therefore code parliamentary and semi-presidential systems (which share this feature) as belonging to a single category.⁶ However, to maintain a wide theoretical lens (and also to leverage the considerable cross-system

⁴ Duverger (1980) famously claimed that semi-presidential systems will tend to mimic either presidential or parliamentary government depending on whether the dual executive (president and prime minister) is controlled by the same party. Writing six years before the first “cohabitation” in France, Duverger expected semi-presidential systems to exhibit “alternation” between presidential and parliamentary phases. Sartori (1994: 24) agrees, but prefers the term “oscillation.”

⁵ For example, Elgie and McMenamin (2011) examined 218 electoral periods in 39 semi-presidential countries between 1989 and 2008. They found that cohabitation existed in only 43 of these 218 periods (20% of the sample).

⁶ See, for example, Ariotti and Golder (2018) on cabinet proportionality in African democracies.

variation in a large- N dataset), we continue to distinguish among our three constitutional formats in the analyses reported below, and hence we hypothesize:

H2: Cabinet proportionality in semi-presidential systems is likely to be lower than in parliamentary systems, but higher than in presidential systems.

Beyond Constitutions: Party-System and Assembly-Level Predictors of Proportionality

Key differences among presidentialism, semi-presidentialism, and parliamentarism are undoubtedly central to explaining variation in cabinet proportionality. Yet these predictors of proportionality are based entirely on intrinsic features of broad constitutional formats.

Recently, a new wave of scholarship has begun to drill down below the level of the constitution to identify within-format factors that shape cabinet proportionality. For example, scholars of semi-presidentialism have identified a wide range of second-order institutional prerogatives afforded to the head of state (Kang, 2009; Savage, 2018; Bucur, 2020). These institutional levers affect the degree to which the formateur will need the cooperation of parties in parliament to pass legislation, and consequently the degree to which the formateur will feel compelled to be fair to these parties. In parallel, scholars of presidentialism such as Silva (2023) have shown that cabinet proportionality is inversely related to the degree of legislative power held by presidents, which can vary immensely across presidential constitutions (Doyle and Elgie 2016). These newer studies focus less on broad differences between constitutional types, and more on the “interior design” of specific institutional settings.

Inspired by this newer work that looks “under the bonnet,” we also want to explore party-system and legislature-level predictors of cabinet proportionality, i.e. factors that vary not only across but also *within* constitutional formats. These factors, if correctly identified,

should exert broadly similar effects on formateurs regardless of the constitutional rules under which they live. To take a simple example, party discipline exhibits cross-national variation that is independent of constitutional type. Formateurs in any system, when presented with parties with tight and predictable discipline on the floor, would see greater value in cultivating them by recruiting their representatives to the cabinet.

On the significance of party-system variables, we are influenced by Kellam's (2015: 515) recent work on presidentialism, in which she shows that particularistic parties are "relatively cheap coalition partners for presidents in policy terms" and their representation in parliament makes it easier for formateurs to change the composition of their legislative coalition throughout their term of office. Conversely, programmatic parties will be motivated to capture the levers of policy that are afforded by ministerial portfolios.

Adapting Kellam's logic, we can expect that more cohesive and programmatic party systems will force the formateur to "behave better," i.e. to be more "fair" in assigning cabinet posts to coalition parties on a proportional basis. We also hypothesize that formateurs will be more likely to treat parties fairly if they believe these parties can command significant support in civil society, for example by demonstrating capacity for social mobilisation. Here we are inspired by the recent work of Martínez (2021) on the relationship between party institutionalization and presidential interruptions in Latin America.⁷ Bringing together three dimensions of party system development, we therefore hypothesize that:

H3: Cabinet proportionality is likely to increase in line with the legislative cohesion (H3a), programmaticity (H3b) and institutionalization (H3c) of party systems.

⁷ Martínez (2021) posits a curvilinear relationship between party institutionalization and the risk of presidential failure. That is, when parties are weakly or highly institutionalized, the hazard of presidential failure is lower than when parties exhibit intermediate levels of institutionalization. Our adaptation of this idea is exploratory, attempting only to detect any positive relationship between party institutionalization and cabinet proportionality.

Variation in the distribution of power between executives and assemblies is also found to have an impact on cabinet proportionality in recent research. Both Bucur (2020) on semi-presidentialism and Silva (2023) on presidentialism have highlighted the role of executive dominance over the legislature in shaping the applicability of Gamson's Law. The less presidents need the support of parties to pass legislation, the less they will practice proportionality in portfolio allocation. While highly creative and with strong empirical results, both analyses are largely restricted to a single constitutional type or world region,⁸ and are difficult to test comparatively given limitations in existing measures of executive power both longitudinally and across different executive formats.

Nonetheless, we can generalize this idea with existing measures of legislative power. Assemblies with greater capacity to monitor and sanction the behaviour of the executive would be expected to raise the probability that formateurs will practice proportionality in the composition of cabinets. In line with existing research (e.g. Martínez-Gallardo, 2012; Camerlo and Pérez-Liñán, 2015), we would expect formateurs to be more likely to distribute cabinet seats proportionally if the advice and consent of the assembly is required for the investiture of ministers.⁹ Also, the more the power base of the chief executive is determined by the confidence of the legislature, the more we should expect formateurs to compose their cabinets on a fair and proportional basis. Hence, taking together three aspects of legislative influence over politics, we hypothesize that:

⁸ Interestingly, Bucur's findings on contemporary European presidential heads of state find parallels in an historical paper by Akirav and Cox (2018) on the cabinet-facing role played by the head of state in early constitutional monarchies. Silva (2023) provides strong evidence that in pure presidentialism, the size of the formateur bonus is directly related to what Shugart and Carey (1992) called "constitutional powers" of the president.

⁹ We are grateful to Patricio Navia for suggesting this approach.

H4: *Cabinet proportionality is likely to increase in line with the assembly's powers of executive oversight (H4a) and ministerial confirmation (H4b) and also with the degree to which the executive's power base is determined by legislative confidence (H4c).*

We therefore have identified at least six different party-system and assembly-level variables that might affect the portability of Gamson's Law *across* broad constitutional formats. These include party-system characteristics such as party programmaticity, party cohesion on the floor, and the institutionalisation of parties in society. They also include variables shaping the executive-legislative relationship such as the power of the assembly to oversee and constrain the executive; the assembly's power to confirm ministerial appointments by the head of state; and a measure for the extent to which the political standing of the executive rests on legislative support. Party-system and assembly-level predictors of cabinet proportionality can only be captured in a large- N design that covers all three main constitutional types.

Data and Results

To estimate the extent to which different executive formats affect cabinet proportionality and why, we analyse cabinet composition data compiled by WhoGov (Nyrup and Bramwell, 2020). The WhoGov dataset contains over 8,000 country-years of information on cabinet members across 177 countries for the period 1966 to 2019. We augment this dataset with legislative seat shares of cabinet-represented parties.¹⁰

¹⁰ Following WhoGov, we use cabinet configuration as of the month of July in each year and we code the formateur in the same month.

We confine our analysis to competitive polities, which we define broadly as political systems with a positive score (1-10) on the Polity IV scale.¹¹ Given our research question, we also limit the analysis to governments formed by cross-party coalitions. The exclusion of single-party cabinets removes approximately one-third of the cases of competitive polities from the WhoGov dataset. Furthermore, we drop cases of coalitions that had incomplete cabinet party data. This amounts to approximately 400 cases. We include these data for robustness checks only. We are left with a final sample of 1551 country-years of competitive politics in 97 countries in the period from 1966 to 2019. Table 1 list the countries covered by the analysis.

[TABLES 1 AND 2 HERE]

Table 2 classifies our cases by constitutional format. Parliamentary country-years comprise the largest percentage of this sample: 45% of all observations, compared to 31% in the semi-presidential category and 24% in pure presidentialism. Consistent with theoretical expectations about prime ministers in parliamentary systems, these data show that parliamentary coalitions tend to include more parties than is the case in either semi-presidential or presidential regimes—suggesting greater limitation of the formateur’s discretion in parliamentary systems. While the relative share of two-party coalitions is similar across all constitutional formats, coalitions of three or more parties are preponderant in parliamentary systems.

These data form the focus of our analysis, which proceeds in two stages. First, we estimate the extent to which cabinet proportionality is achieved across the broad constitutional formats. This entails the analysis of a Gamsonian measure of fairness ranging from zero to one: it measures extent to which the formateur distributes cabinet portfolios

¹¹ This ranges from “open anocracies”—countries that are neither fully democratic nor fully autocratic, but are closer to democracies on all components measured by Polity—to consolidated democracies (Marshall and Cole 2014: 21).

among coalition parties proportionally to their seat shares within the coalition's legislative contingent.¹² We also estimate whether the formateur is compelled to share *prestigious* cabinet posts by calculating the degree to which the formateur's party or non-partisans are underrepresented relative to the share of seats held by the formateur's party within the legislature. Data for these highly salient posts are taken from WhoGov, which uses Krook and O'Brien's (2012) typology of four policy areas assumed to enjoy universal prestige. The names of the ministerial portfolios naturally vary across countries, but the four easily recognizable categories are: (1) Defence/Military/National Security; (2) Foreign Relations; (3) Interior/Home Affairs; and (4) Finance/Budget/Treasury.¹³

In the second stage of our study, we seek to account for the observed variation *within* each executive format using our party-system and assembly-level predictors. This involves analysis of party-level and institutional (legislature-specific) factors that feature in system-level studies of cabinet composition. To estimate their effects on cabinet proportionality, we consider a range of V-Dem variables. They include party-system covariates that measure the magnitude of party programmatic party cohesion,¹⁴ linkages with voters,¹⁵ and the institutionalisation of parties in terms of the wider society.¹⁶ They also include legislative factors that affect executive power: the power of the assembly to oversee and constrain the

¹² In the presidentialism literature, this measure is often termed "cabinet coalescence," a synonym for Gamsonian proportionality. See for example Amorim Neto (2002); Chaisty et al. (2018).

¹³ The variable does not range from 0 to 4 in all cases. In some country-years, there were fewer than four of these positions in existence, and in some cases, there were more than four, for example when a prestige policy area had two different representatives in the cabinet (e.g. separate ministers of Finance and Budget).

¹⁴ V-Dem asks "Is it normal for members of the legislature to vote with other members of their party on important bills?" (Coppedge et al., 2022: 96). 0: Not really. 1: More often than not. 2: Mostly. 3: Yes, absolutely. (Coppedge et al., 2022: 96).

¹⁵ The specific V-Dem question asked: "Among the major parties, what is the main or most common form of linkage to their constituents?" Responses: 0: Clientelistic; 1: Mixed clientelistic and local collective; 2: Local collective; 3: Mixed local collective and policy/programmatic; 4: Policy/programmatic. (Coppedge et al., 2022: 94-95).

¹⁶ V-Dem asks "To what extent are political parties institutionalized? Party institutionalization refers to various attributes of the political parties in a country, e.g., level and depth of organization, links to civil society, cadres of party activists, party supporters within the electorate, coherence of party platforms and ideologies, party-line voting among representatives within the legislature. A high score on these attributes generally indicates a more institutionalized party system." The variable is ordered by five categories. (Coppedge et al., 2022: 349).

executive;¹⁷ the assembly's power to confirm ministerial appointments by the head of state;¹⁸ and a measure for the extent to which the political authority of the executive rests on the support of the legislature.¹⁹

Cross-format results

We begin with a simple visual inspection of the data, comparing observed cabinet allocations in presidentialism, parliamentarism, and semi-presidentialism to the relationship posited by Gamson's Law. Gamsonian proportionality is represented by the diagonal line in each of the three panels in Figure 1, which shows the relationship between the share of cabinet posts held by the formateur's party and the share of coalition seats controlled by this party across our three broad constitutional formats.²⁰ The panels provide strong visual support for H1 (cabinet proportionality should be lower in presidential systems than in parliamentary systems) and H2 (proportionality in semi-presidential systems should be lower than parliamentary systems but higher than in presidential systems). As can be seen in panel (a) of Figure 1, country-year observations in parliamentary systems behave largely according to expectation and are arrayed close to the Gamsonian line, with a linear association of .742; semi-presidential observations (panel b) exhibit greater dispersion with a correlation between seat shares and cabinet shares of .618; meanwhile, pure presidential observations (panel c) are more scattered

¹⁷ V-Dem asks "To what extent are the legislature and government agencies e.g., comptroller general, general prosecutor, or ombudsman capable of questioning, investigating, and exercising oversight over the executive?" oversight. The variable is ordered by three categories in the direction of greater oversight capacity (Coppedge et al., 2022: 349).

¹⁸ V-Dem asks "In practice, does the head of state have the power to appoint – or is the approval of the head of state necessary for the appointment of – cabinet ministers?" We recode this as a binary variable, coding as 1 responses that require the approval of the assembly (Coppedge et al., 2022: 121).

¹⁹ V-Dem asks: "To what extent is the power base of the chief executive determined by the confidence of the legislature?" (Coppedge et al., 2022: 292). This is coded in the direction of greater legislative confidence powers.

²⁰ We code the prime minister's party as the formateur party in parliamentary systems and the president's party as the formateur party in presidential systems. In semi-presidential systems, the largest party is coded as the formateur party; the exceptions are when the largest party is unable to form (e.g. Finland 1987) or sustain (e.g. Lithuania 2001) a governing coalition, and when constitutional "president-parliamentary" rules give presidents the upper hand in government formation (e.g. Iceland, São Tomé e Príncipe [1990-2002], Ukraine [1996-2006]).

with a coefficient of .598.²¹ Globally, the linear association for parliamentary systems (.742) is much lower than one finds in the large body of research on postwar European parliamentary systems.

[FIGURE 1 HERE]

The exceptional levels of disproportionality in presidential systems are also illustrated by the greater proportion of country-year cases above the Gamsonian line. Observations above the line indicate the relative size of the formateur bonus: here, the proportion of cabinet posts awarded to the formateur party exceeds its contribution to coalition seats on the floor. The results provide clear support for H1 and H2. In panel (a), observations above the line are 35.7% for parliamentarism, in panel (b) 43.7% for semi-presidentialism, and an astounding 82.4% in pure presidentialism (panel c). Presidential formateurs are thus more than twice as likely as prime ministers to exaggerate their party's share of the cabinet.

As can be seen in Table 3, our inclusion of parliamentary systems in transitional and developing democracies outside of Europe results in much weaker correlations, which are non-significant in some regional clusters. Moreover, the result for parliamentary systems in Europe is lower than typically assumed (it is .90 or higher in many post-Browne and Franklin studies), and this may also be a consequence of the eastward expansion of political democracy since the 1990s.

[TABLE 3 HERE]

Nonetheless, despite this complexity, basic constitutional differences are still key to understanding the extent of cabinet proportionality. Figure 2 summarises the average size of cabinet proportionality across all executive formats. In contrast with Figure 1, which reports data for formateur parties only, these data summarise mean cabinet proportionality for *all*

²¹ This chart includes non-partisan formateurs, represented by zero values.

parties in the coalition.²² In line with H1, these results once again depict the strong formateur advantage under the separation of powers. Whereas formateurs in parliamentary and semi-presidential systems are more likely to assign cabinet positions in proportion to the legislative support commanded by their coalition partners, this declines significantly in pure presidentialism. The pairwise comparison of means between presidential cases and the other executive formats is much stronger than between parliamentary and semi-presidential systems (see note in Figure 2).

[FIGURE 2 HERE]

Similarly, co-partisans of the formateur in presidential systems are much more likely to be overrepresented in *prestigious* cabinet posts relative to their presence in the assembly (Figure 3). Once again, the most significant pairwise comparisons are between presidentialism and the other two constitutional types.

Why are the constraints on the formateur bonus significantly weaker in presidential systems? Is this only because of intrinsic constitutional features or can it result from other aspects of institutional design? We now proceed to the within-format analysis of the party-system and legislative factors that are theorized to account for variance in Gamson's Law in constitution-specific studies. What is the relative significance of party-system characteristics and legislative influence?

Within-format results

In this analysis, we first estimate the effects of party and assembly-level predictors in simple bivariate models, and then include the most salient predictor for within-system variation—party-system institutionalization—in multivariate analysis, while controlling for world region and level of political democracy. The panel data used in this analysis present some common

²² For a full description of the method used to calculate cabinet proportionality, see Amorim Neto (2002).

challenges. Our dataset is unbalanced due to attrition and missing data and is affected by the problem of autocorrelation, i.e., repeated observations for the same countries that are likely to be positively correlated and thus not independent of each other. To correct for these problems, we estimate each model using Generalised Estimating Equations (GEE) (Ghisletta and Spini, 2004). This statistical method is designed to correct unbalanced panel data and autocorrelation, producing more efficient estimates. We also include robust standard errors to mitigate sensitivity to the correlation structure.

Key results of the analysis are presented visually in Figure 4. They summarise the average marginal effect of each party-system and assembly-level predictor on our measurements of cabinet proportionality for each broad constitutional format.²³ Values for variables to the left of the vertical line indicate depressing effects on cabinet fairness, while values to the right are indicative of effects increasing cabinet proportionality. Confidence intervals represented by horizontal lines either side of the point estimate indicate non-significance when they overlap the vertical line.

In general, the results for parliamentary and semi-presidential systems support all variants of H3, namely, that cabinet proportionality is likely to increase in line with the floor-level cohesion (H3a), tendency toward programmaticity (H3b) and overall institutionalization (H3c) of party systems. They show that party-system institutionalization in particular is far more significant in explaining proportionality in parliamentary and semi-presidential systems than in presidential polities.

[FIGURE 4 HERE]

In Figure 4, positive values for the marginal effects of party predictors on cabinet proportionality in parliamentary and semi-presidential systems indicate the extent to which they contribute towards Gamsonian “fairness.” This is especially evident for the party-system

²³ The full models are presented in Table A1 in the online appendix.

institutionalization variable. A one-unit increase in party-system institutionalisation increases cabinet representativeness by 35 percentage points in parliamentary systems, and by 39 percentage points in semi-presidential systems. A one-unit increase in voting cohesion on the assembly floor also raises the representativeness of cabinets by 14 percentage points in semi-presidential systems and by 9 percentage points in parliamentary systems. Similarly, programmatic parties are significantly more likely to improve the representativeness of cabinets, with a one-unit increase in programmaticity increasing cabinet fairness by 6 percentage points in parliamentarism.

However, no version of our H3 finds support among presidential systems: the average marginal effects of our party-system covariates are either small or non-existent. The negative results for party cohesiveness, programmaticity and institutionalization in Figure 4 suggest that these predictors might actually *decrease* the proportionality of cabinets in pure presidentialism, although these results are not statistically significant.

Assembly-level predictors are less consistently significant. Levels of oversight capacity have a significant impact in raising the proportionality of cabinets in semi-presidential systems only. A one-unit increase in oversight increases Gamsonian proportionality by 35 percentage points. And, in parliamentary systems, proportionality increases in line with the power of assemblies to confirm ministerial appointments.

[TABLE 4 HERE]

These findings are robust to alternative specifications including incomplete party data.²⁴ We also re-estimated our models with a thinned dataset that includes only “consolidated” democracies—i.e. country-years classified by Polity at point 6 and higher—and observe the same general patterns.

²⁴ Incomplete cases typically encountered one party for which seat-share data was unavailable. Measurements could be calculated but not with the same level of accuracy, hence their exclusion from the analysis.

Finally, multivariate tests (see Table 4) confirm the positive effect of party-system institutionalization on cabinet proportionality, but in parliamentary systems only. Even when controlling for regional variation and levels of democratic development in parliamentary systems, party institutionalisation is strongly significant in differentiating levels of cabinet proportionality. Interestingly, however, the effect of party institutionalisation is vacated in semi-presidential systems. This appears to be largely a consequence of the inclusion of regional controls, which capture weaker party-system development in many regions outside of Europe. This result reaffirms the limited geographic portability of Gamson's Law, with semi-presidential cabinets in Asia and the former Soviet Union significantly less likely to be representative of coalition parties in the legislature than is the case for European semi-presidential systems.

Conclusion

We advanced the debate on Gamson's Law by taking it far afield from its Western European origins and examining it within a large sample of political systems from around the world, inspected annually between 1966 and 2019. We further advanced the debate by making a distinction between first-order constitutional drivers of the "law" (i.e. broad executive formats) and some plausible within-system predictors: party-system characteristics and prerogatives of the assembly.

We found that pure presidentialism offers the fewest constraints on formateurs and is the least Gamsonian of constitutional formats. We also found evidence that while the two alternatives to presidentialism—parliamentary and semi-presidential systems—are closer in many respects, they are still different from each other in terms of cabinet proportionality. This questions the approach of previous studies that have collapsed the two categories when studying the formateur bonus in cabinet portfolio allocation. Ariotti and Golder (2018)

suggest that the driver of “fairness” in portfolio distribution may be traced to the simple fact that parliamentarism and semi-presidentialism possess the vote of no confidence (meaning that parties can bring down the government) whereas presidentialism does not. Our findings suggest that this constitutional feature cannot entirely explain the differences in levels of cabinet proportionality between the two systems.

Yet the above observations are directed mainly at intrinsic constitutional predictors of cabinet proportionality. Among the party-system and assembly-level predictors that we consider, our analysis suggests that for parliamentarism regimes, party-system institutionalization is a promising and consistent predictor of cabinet proportionality. More institutionalized party systems appear to deter formateur advantage across parliamentary systems. This makes intuitive sense. In institutionalized party systems, the leading parties are more likely to be cohesive and disciplined, meaning that they are valuable potential allies for prime ministers; but for the same reasons, these parties are well positioned to defend their interests in initial negotiations with the formateur. However, in semi-presidential systems this effect appears to be regionally specific. When we control for regional differentiation, the effect of party institutionalisation loses statistical significance.

We also find that the structural distinctiveness of presidentialism appears to undermine or even neutralize the bargaining capacity of institutionalized parties: presidentialism is *consistently* associated with an exaggerated form of formateur bonus. The knock-on effects of the “separate origin and survival” of the executive and legislature under presidentialism, originally posited by Shugart and Carey (1992), is a point also stressed in new work by Silva (2023) on formateur advantage under the separation of powers.

While we have not addressed the point at length here, we observe that a major defect in the literature on Gamson’s Law has been its inability to contend with variation in portfolio salience (Warwick and Druckman 2001, 2006). Although some solutions have recently been

proposed (e.g. Bucur, 2018; Zucco et al., 2019), we need much more work on this topic. Few scholars are likely to accept that all portfolios are of equal value (e.g. the Ministry of Sports is not equivalent to the Ministry of Finance), and therefore it is quite possible that formateurs can “game the system” by composing cabinets that exhibit quantitative proportionality while enshrining qualitative disproportionality in the actual value of portfolios. We are still very far from producing a cross-national dataset that assigns comparable values of portfolio worth across time and space. Nonetheless, here we followed WhoGov in making a simple assumption about the privileged status of four portfolio types, and we were able to compile data on 1551 country-years to determine what share of these “prestige posts” are withheld by the formateur. We find early evidence that formateurs in pure presidentialism are far more likely to reserve the most prestigious cabinet posts for their co-partisans than are formateurs in either parliamentary or semi-presidential systems. In other words, we observe that the formateur advantage in presidential systems is not only quantitative but also qualitative.

Finally, we have found rather strong evidence that Gamson’s Law is not globally portable. What has been described as “the strongest empirical finding in political science” appears to be an artefact of parliamentary democracy, and particularly of *European* parliamentary democracy. Where parliamentarism exists outside of Europe (e.g. in Asia, Oceania, and Israel, accounting for a third of our parliamentary country-years) there is evidence of Gamsonian behaviour by formateurs, but with less commitment to proportionality than the traditional Western European literature suggested. Thus, further research on Gamson’s Law should invest not only in the theoretical models that have dominated much of the recent literature, but also in empirical work that uncovers non-constitutional predictors of cabinet proportionality across institutional designs.

Table 1: Sample Summary of Cases by Region and Country, 1966–2019

<i>Region</i>	<i>Country</i>	<i>Number of country years (%)</i>
Africa	Benin, Burundi, Central African Republic, Congo–Brazzaville, Equatorial Guinea, Ghana, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Niger, Nigeria, São Tomé & Príncipe, Senegal, Sierra Leone, Sudan, Tunisia	107 (6.9)
Americas	Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Honduras, Mexico, Panama, Paraguay, Peru, Suriname, Trinidad & Tobago, Uruguay, Venezuela	254 (16.4)
Asia-Pacific	Australia, Bangladesh, Fiji, India, Indonesia, Japan, Malaysia, Mongolia, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, South Korea, Sri Lanka, Taiwan, Thailand, Timor-Leste	247 (15.9)
Europe	Albania, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Sweden, Switzerland, United Kingdom	828 (53.4)
Former USSR (non-EU)	Armenia, Georgia, Kyrgyzstan, Moldova, Ukraine	57 (3.7)
Middle East	Israel, Lebanon, Turkey	58 (3.7)
Total		1551 (100.0)

Table 2: Frequencies of Party Coalitions Across Different Executive Formats
(percentages in parentheses)

<i>Number of parties</i>	<i>Presidential</i>	<i>Semi-presidential</i>	<i>Parliamentary</i>	<i>Total</i>
2	182 (11.7)	228 (14.7)	247 (15.9)	657 (42.3)
3	71 (4.6)	122 (7.9)	240 (15.5)	433 (27.9)
4	81 (5.2)	61 (3.9)	108 (6.9)	250 (16.1)
5+	42 (2.7)	67 (4.3)	102 (6.6)	211 (13.6)
Total	376 (24.2)	478 (30.8)	697 (45)	1551 (100)

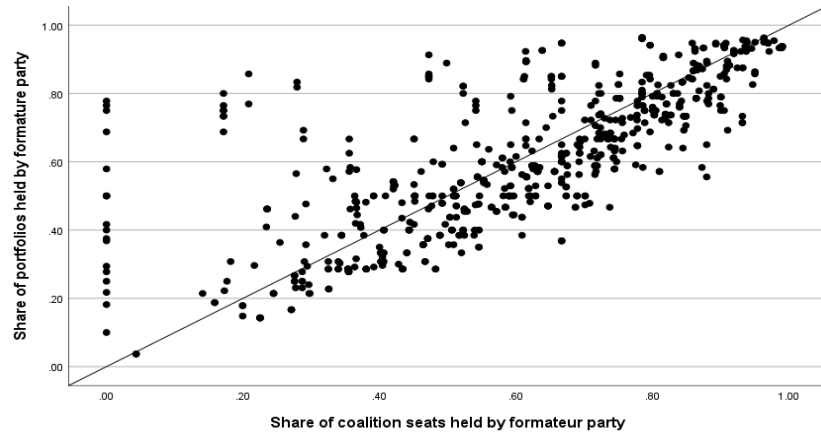
Table 3: Pearson Correlations of the Formateur’s Share of Cabinet Posts and Coalition Seats, Parliamentary Systems Only, by World Region

<i>Region</i>	<i>Pearson coefficient</i>	<i>Number of country years</i>
Americas	-.316	12
Asia-Pacific	.760**	180
Europe	.861**	427
Former USSR (non-EU)	.577	8
Middle East	.727**	42
Sub-Saharan Africa	-.135	28
Total		697

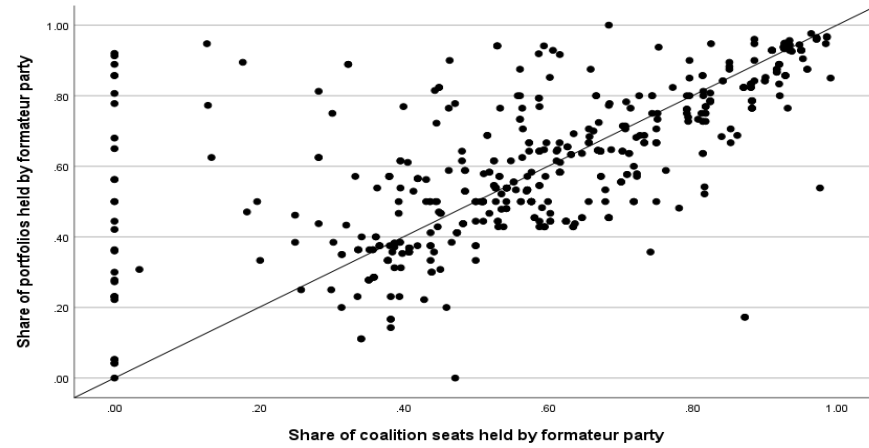
** Correlation is significant at the .001 level (two-tailed)

Figure 1: Formateur Portfolio Shares in Three Constitutional Formats vs Gamsonian Line

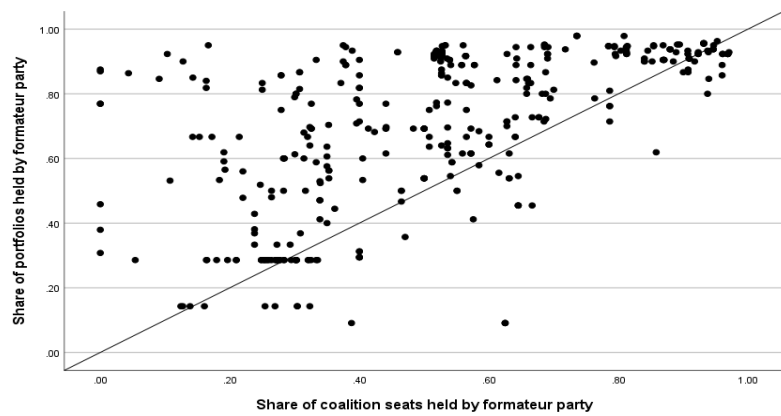
(a) Parliamentary



(b) Semi-presidential

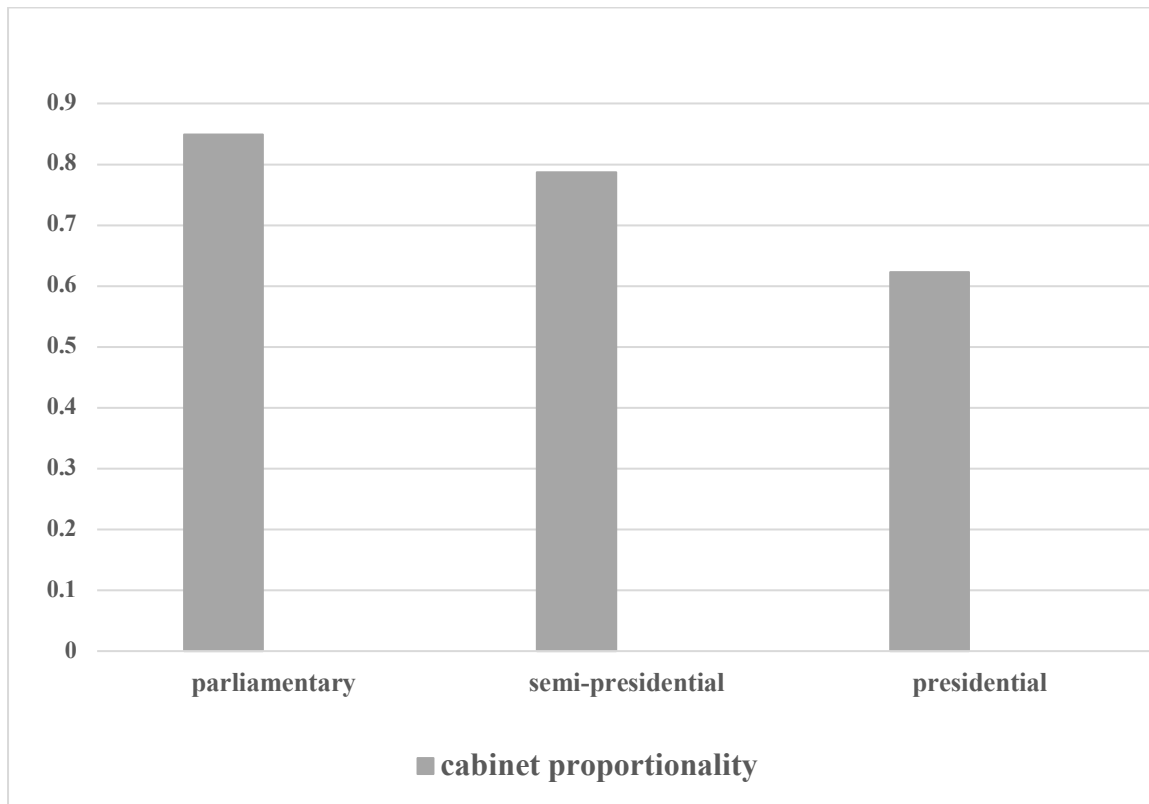


(c) Presidential



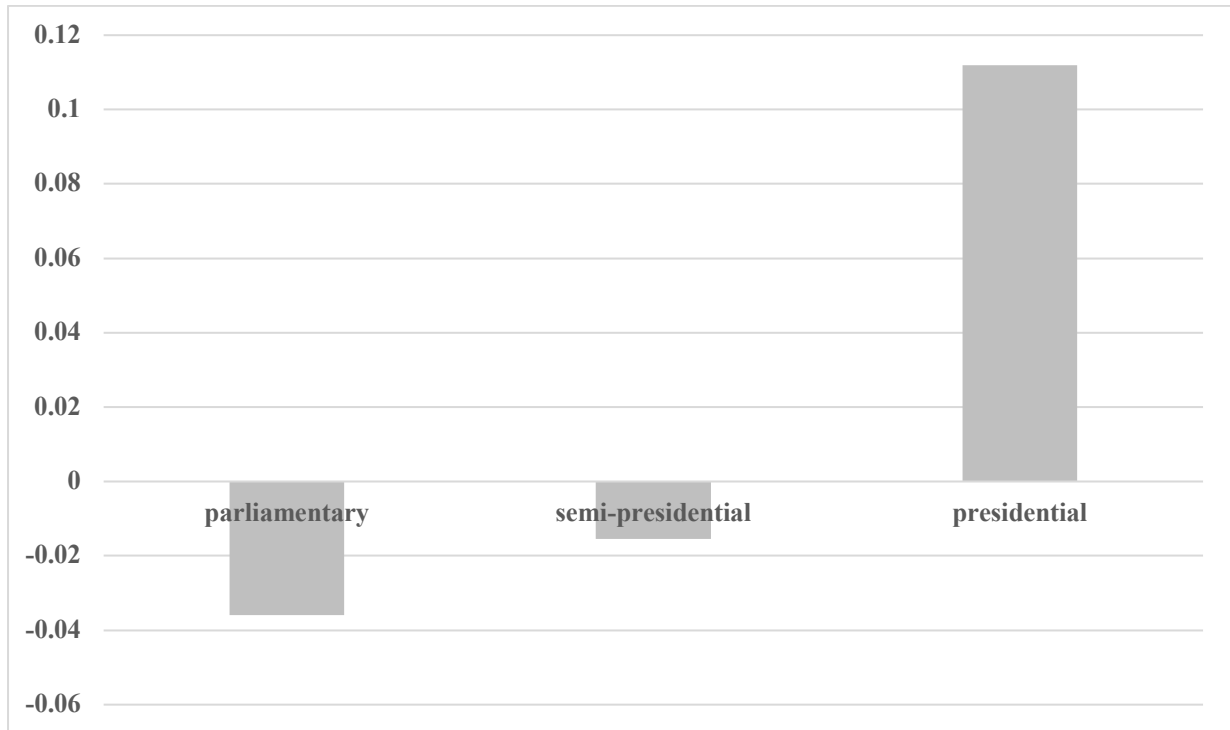
Notes: Total $N=1550$. Correlation for parliamentary systems only: $r=.742$, $N=697$. Correlation for semi-presidential systems only: $r=.618$, $N=478$. Correlation for presidential systems only: $r=.598$, $N=375$. All associations significant at $p<.01$. Diagonal line represents perfect Gamsonian proportionality ($r=1.00$).

Figure 2: Mean Cabinet Proportionality Estimates by Executive Format



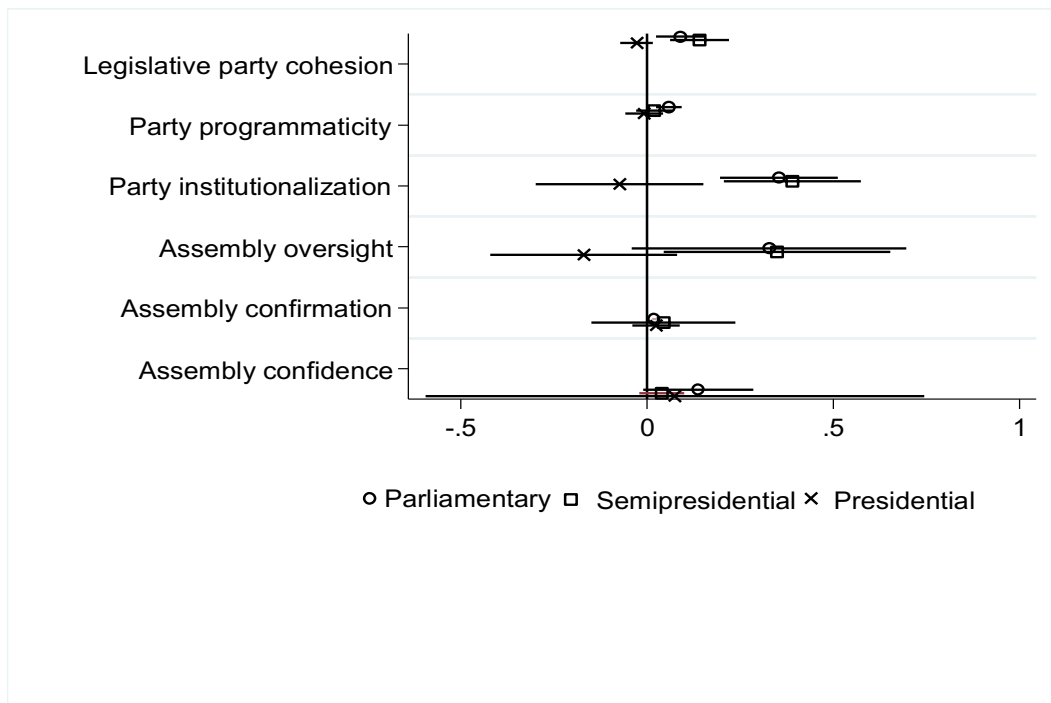
Note: Pairwise comparisons of means with equal variances: semi-presidential vs parliamentary (contrast $-.062$; st. error $.010$; $p=.000$), presidential vs parliamentary (contrast $-.226$; st. error $.011$; $p=.000$); presidential vs semi-presidential (contrast $-.164$; st. error; $p=.000$)

Figure 3: Mean Representation of Formateur Contingents in the Most Prestigious Cabinet Posts, by Executive Format



Notes: These data summarise mean differences between the share of cabinet and legislative seats held by the formateur in each constitutional format. Positive and negative mean values indicate overrepresentation and underrepresentation of the formateur in prestigious cabinet posts. Pairwise comparisons of means with equal variances: semi-presidential vs parliamentary (contrast .020; st. error .016; $p=0.426$), presidential vs parliamentary (contrast .147; st. error .017; $p=0.000$); presidential vs semi-presidential (contrast .127; st. error .018; $p=0.000$)

Figure 4: Party-System and Assembly-Level Variables Shaping Cabinet Proportionality (with 95% confidence intervals)



Source: drawn from V-Dem (Coppedge et al., 2022) and authors' dataset building on Bramwell and Nystrup (2020); see text for details.

Table 4: Multivariate Regressions of Cabinet Proportionality on Party-System Institutionalization, by Constitutional Format (Generalised Estimating Equations with Robust Standard Errors)

	Coefficient (robust standard errors)		
	Parliamentary	Semi-Presidential	Presidential
Party-system institutionalization	0.370 (0.114)**	0.188 (0.139)	0.049 (0.109)
Region ^a			
Africa	-0.041 (0.099)	-0.135 (0.180)	-0.340 (0.121)**
Americas	[NA] ^b	[NA] ^b	-0.243 (0.102)*
Asia-Pacific	0.060 (0.040)	-0.080 (0.034)*	-0.420*** (0.101)
Former USSR	[NA] ^b	-0.243 (0.072)**	-0.115 (0.1112)
Middle East	-0.045 (0.109)	0.034 (0.026)	[NA] ^b
Electoral democracy ^c	0.041 (0.213)	-0.054 (0.111)	-0.198 (0.210)
Wald chi ²	23.88	128.18	137.39
Probability chi ²	0.00	0.0000	0.000
N	696	478	375

Notes:

(a) Excluded reference category is Europe; other minor exclusions explained in note (b).

(b) Not applicable. Regions are excluded when there are no cases or no variation at the country level (e.g. just one country was classified as parliamentary in the Americas regional category: Trinidad and Tobago).

(c) Measured by the V-Dem Electoral Democracy Index. V-Dem asks: “To what extent is the ideal of electoral democracy in its fullest sense achieved?” (Coppedge et al., 2022: 43).

Significance levels: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

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Supplemental Information (Online Appendix)

Table A1. Bivariate Regression of Cabinet Proportionality on Party-System and Assembly-Level Variables (Generalised Estimating Equations with Robust Standard Errors)

	Parliamentary						Semipresidential						Presidential					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<i>Party-System</i>																		
Legislative cohesion	.10** (.03)						.13** (.04)						-.04 (.02)					
Programmatic		.04* (.01)						.02 (.02)						-.02 (.02)				
Institutionalization			.28*** (.07)						.44*** (.10)						-.17 (.11)			
<i>Assembly-Level</i>																		
Oversight				.03 (.02)						.12 (.05)*						-.07 (-.07)		
Confirmation					.08 (.09)						-10 (.03)*						-.12 (.07)	
Confidence						.08 (.04)						.07 (.04)						.07 (.34)
N Cases	613	613	613	613	613	613	394	394	394	394	377	377	324	324	323	324	324	324

Note: This corresponds to Figure 4 in the article. Coefficients with robust standard errors in parentheses. Significance levels: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.00$