Research Article

Preliminary Insights into the Formation of Minimal Winning Coalitions in Western Europe

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Abstract

Coalition governments have prompted a stream of prominent research since the birth of modern political science. Several studies have been performed on the lifecycles of cabinets, focusing particularly on their formation and duration. The first investigations into such issues were carried out using game theoretic approaches. In their ground-breaking works, William Riker and Lawrence Dodd argued that office-seeking outcomes, i.e. minimal winning coalitions, are more frequent and stable than other cabinet types. However, more recent research suggests that this proposition is disputable. By relying on an original multilevel dataset on West European cabinets, this study examines the actual rationality of minimal winning coalitions by asking whether they have been more recurrent than different government formulae, as predicted by game theory. The analysis finds that such coalitions have not been formed more frequently than non-rational cabinet solutions, i.e., oversized majority cabinets. In addition, the article showcases that minimal winning coalitions may occur in both polarised and less polarised West European political systems. By shedding light on office-based game theoretic propositions and their observable empirical records, this study contributes to the scientific examination of a fundamental stage of democratic governance in Western Europe.

Keywords

INTRODUCTION

Traditionally, government formation has been at the core of political scientists' investigations. The issue has prompted considerable interest, as it shows tremendous empirical variation. In Belgium, since 1946, the average duration of the government formation process has been 60 days. In the Netherlands, parties take almost an average of 80 days to find a ruling solution. Conversely, countries such as Denmark, Greece and France spend less than 20 days in negotiations. Variation can also be found in relation to government duration. Italian governments have an average duration of almost one year. By contrast, German cabinets have a much longer lifetime, with an average duration of three years. Government formation and duration remained distinct research fields for a long time; until the path-breaking work by Strøm et al. (2008) on the *coalition lifecycle* approach. Each stage of the coalition lifecycle, namely, government formation, governance, and government termination, influence one another. In a nutshell, what happens in the embryonic phase of a government's life matters when it comes to its death. This integrated strategy is currently used in most research on cabinets and coalition governments (Bergman et al. 2021). Following this approach, we use a dynamic perspective focusing on the minimal winning criterion.

For decades, one of the most popular assumptions in coalition government research is that minimal winning coalitions are more recurrent and stable than other cabinet types (Riker 1962; Dodd 1976). In particular, Riker's theory of coalition formation posits that parties strive for the smallest number of government partners to achieve the highest share of executive power. This *size* principle is reported in political science from game theoretic notions of economic behaviour (Von Neumann and Morgenstern 1947). However, recent theoretical developments have revealed that such propositions are disputable (Mitchell and Nyblade 2008). Along with office-seeking conceptions of party behaviour, two other major theoretical and conceptual frameworks explain government formation: vote-seeking assumptions (Downs 1957) and policy-seeking perspectives (De Swaan 1973). Over the past decades, political scientists interested in the lifecycles of cabinets have empirically examined game theoretical propositions. The results display unique national variation (Franklin and Mackie 1984) and the spread of *non-rational* undersized and oversized governments (Müller and Strøm 2000).

Scholars have also discussed whether policy objectives or office ambitions move political actors. A challenging problem arising in this domain is the precise definition and empirical evidence of office- or policy-seeking parties. This is typically a complex problem, as parties' strategies may differ according to bargaining situations. In this regard, it has been argued that political formations must deal with trade-offs (Warwick 2005), requiring tough decisions between policies and offices (Strøm and Müller 1999). Harmel and Janda (1994) argued that parties' goals can also be influenced by external shocks, namely, external stimuli directly related to performance considerations on parties' primary goals.

As government formation has a long research tradition, theories on the occurrence of coalition types have been widespread. Before Dodd's (1976) proposition on the higher stability of minimal winning coalitions, Lowell (1896) pointed out that single-party majority governments provide greater stability than other cabinet types in parliamentary systems. In his book *Conflict of Interest*, Axelrod (1970) argued that minimal connected winning coalitions are both likelier to be formed and are more stable than other coalitions. The existing body of research suggests that game theoretic propositions may be ineffective in explaining the outcomes of coalition bargaining in Europe (Müller and Strøm 2000). Likewise, studies of government duration have shown contrasting results. On the one hand, minimal winning coalitions have proved effective in boosting government duration (Warwick 1979; Schofield 1987). On the other hand, recent studies have demonstrated that minority governments (non-rational solutions according to the size principle) are not generally less stable than other cabinet types (Krauss and Thürk 2021).

The present research updates previous studies that tested whether minimal winning coalitions are more recurrent compared with different cabinet types. With this aim in mind, an original multilevel dataset of about 700 cabinets in 20 Western European countries in the post-1945 era

was constructed. This study enlarges the temporal framework of past contributions by considering the post-Great Recession period (from 2008). Although this update is preliminary, it improves our understanding of parties' office-based motivations in Europe. In the context of multilevel governance, ruling parties are increasingly under pressure. Such a tendency was highlighted by Peter Mair (2009) with the responsiveness–responsibility dilemma. On the one hand, political parties in Western Europe need to be *responsive* to short-term demands from voters, the media and interest groups. On the other hand, they should be *responsible* when dealing with long-term needs and international commitments (Bardi et al. 2014). In these conditions, office-based motivations may be less appealing for political formations and party leaders, who might seek to avoid the electoral costs of ruling.

The remainder of the paper is structured as follows. The second section overviews previous literature on government formation and coalitions. Then, it introduces the research questions and expectations of the analysis. The third section focuses on the data and methodology used for this study. The fourth section presents the observable records, focusing on the two key themes that inform the study—the occurrence of minimal winning coalitions. The last part discusses the implications of the results and concludes.

BACKGROUND

Coalition theory has been the subject of many classic studies in political science. Since being first studied in the 1960s and 1970s by political scientists interested in game theory, the topic has continued to draw much attention. Riker's size principle represents one of the first game theoretical accounts concerning the issue. Precisely, it is predicted that 'In n-person, zero-sum games, where side-payments are permitted, where players are rational, and where they have perfect information, only minimal winning coalitions occur' (Riker 1962: 32). More generally, it is argued that participants create coalitions just as large as they believe will ensure winning and no larger (Riker 1962: 47). The size principle has been interpreted in terms of the number of seats controlled (Gamson 1961; Riker 1962) and the number of parties involved (Leiserson 1966). Along these lines, it is argued that to achieve the highest utility resulting from the bargaining process, parties strategically adopt office-seeking behaviour, striving to maximise governmental posts. Thus, political formations will avoid forming *overwhelming majorities*.

Drawing upon game theoretic analysis of economic behaviour (Von Neumann and Morgenstern 1947), Riker's size principle posits that all non-winning coalitions are either blocking or losing (Riker 1962: 40). Therefore, if parties are rational and have perfect information, they will opt for a minimal winning solution. While Downs (1957) argued that electoral considerations move parties, Riker emphasised the primary goal of reaching ruling positions. Subsequent studies have suggested that policy distance and ideological considerations are the main alternative explanations for parties' coalition behaviour (Axelrod 1970; De Swaan 1973). However, both competing perspectives include references to winning coalitions, thus refining, rather than neglecting, Riker's size principle by also considering the role of policy preferences. In this way, it has been argued that both office seeking and policy pursuit can plausibly be assumed to motivate coalition actors (Budge and Laver 1986), emphasising the importance of a combination of size and preferences (Laver and Shepsle 1996). Nevertheless, as mentioned previously, choosing between policies, offices, and votes might be difficult and painful. Political parties are often called on to make difficult decisions in order to find the optimal solution amongst different trade-offs (Strøm 1990; Strøm and Müller 1999).

The past years have seen increasingly rapid advances in the field of government formation and coalition theory. Political science scholars have attempted to empirically verify game theorists' classic propositions using multivariate testing. The findings show significant country variations and that government formation in Western Europe did not follow the predicted outcomes (e.g. Mitchell and Nyblade 2008). In particular, the spread of two non-rational governing formulae, i.e. minority governments and oversized majorities, put the validity of the size principle under tremendous pressure. While the former coalition is a frequent solution for cases in which

negative electoral consequences are considerably high, the latter occurs when information is incomplete and policies are the main parties' concern (Strøm 1990).

During the past decades, all the components of minimal winning coalitions, namely, *minimal winning*, *winning* and *coalition*, have not been held in practice in Western Europe. Investigating 17 West European countries, Mitchell and Nyblade (2008) found that non-rational cabinets have been significantly more common than expected and that minimal winning coalitions account for 30.5% of the governments formed in their sample. These findings are surprising, as minority governments and oversized coalitions are considered non-rational according to office-based theories (Andeweg et al. 2011). Furthermore, coalition studies have not focused solely on the government formation process. Minimal winning coalitions are also considered to be more stable than other cabinet types (Riker 1962; Dodd 1976; Diermeier and Merlo 2000: 63). Dodd (1974: 1094) proposed that 'minimal winning cabinets will be quite durable. Oversized and undersized cabinets will be more transient'. As highlighted by Grofman (1989), Dodd made several crucial propositions. First, minimal winning coalitions tend to form in multi-party systems that are de-fractionalised and not extremely polarised. Second, oversized cabinets tend to form in multi-party systems that are fractionalised and non-conflictual. Finally, undersized cabinets tend to form in multi-party systems that are fractionalised and highly conflictual.

Scholars of government stability have included cabinet types as explanatory variables in their studies, demonstrating the impact on both government duration (Warwick 1979; Schofield 1987) and termination (Saalfeld 2008). Other features of cabinet structures have also been analysed, highlighting how reducing the number of parties in government increases coalition stability (Leiserson 1966; 1968). However, cabinet structures are not the only significant factors in explaining government duration. Research has shown the role of different agents, such as party systems' characteristics (King et al. 1990; Warwick 1992), critical events (Browne et al. 1984; 1986) and economic conditions (Robertson 1983). The current study makes a step forward to empirically verify the occurrence and of minimal winning coalitions in Western Europe by expanding previous research spatially and temporally. Drawing upon the the earlier literature, this study asks the following research question:

> RQ1: Have minimal winning coalitions been the most frequent outcomes of government formation in Western Europe?

Along with the above-mentioned research question, the contribution of this work includes the investigation of additional concerns. Specifically, this study asks whether there is geographic and temporal differentiation in the occurrence of minimal winning coalitions across Western Europe. The theoretical framework allows for establishing directional expectations that guide the analysis of the presented research questions. As noted previously, the existing literature has found that the outcomes of government formation in Western Europe have also led to *non-rational* governing solutions. Thus, this study expects that minimal winning coalitions have not been the most frequent outcomes of bargaining (H1). Consistent with Franklin and Mackie (1984), this study also expects geographical differentiation in the patterns of government formation (H1a). West European cabinets differ substantially in their party system structures, suggesting divergent trajectories in the negotiation processes. According to the size principle (Riker 1962), minimal winning coalitions result from a two-person game with complete information. Furthermore, Dodd (1976) posited that minimal winning cabinets tend to form in multi-party systems that are de-fractionalised and not extremely polarised. The analysis expects minimal winning coalitions to occur more often in multi-party systems with two large parties. In such situations, two large parties can conduct highly informed bargaining by limiting other parties' power and forming a grand coalition amongst them (Budge and Keman 1990).

Governments across Europe have faced multiple crises in recent times, leading to increased non-partisans' involvement in ruling positions (Pastorella 2016). Particularly, holding executive posts in times of economic turmoil might be deemed dangerous by political formations and party leaders. The spread of non-partisans in national governments has been analysed by highlighting parties' necessity to preserve their credibility vis-à-vis voters and to dilute responsibility when

treacherous crises occur (Wratil and Pastorella 2018; Alexiadou and Gunaydin 2019). Economic shocks have also been demonstrated to influence government formation (Robertson 1986) by promoting all pro-system party coalitions (Budge and Keman 1990). Therefore, office-seeking perspectives may be less critical in driving parties' coalition behaviour in times of crisis. Along these lines, this study expects minimal winning coalitions to be less frequent in economically unfavourable periods (H1b).

To sum up, the research hypotheses are as follows:

> H1: Minimal winning coalitions are not the most frequent outcomes of the government formation process in Western Europe over the analysed time frame.

> H1a: Minimal winning coalitions occur more often in less polarised multi-party systems in which two large parties are willing to form a grand coalition to limit other parties' power.

> H1b: Minimal winning coalitions are less frequent than oversized majority governments in economically unfavourable periods.

DESIGN

This study uses an original multilevel dataset of about 700 cabinets and 373 elections in 20 Western European countries from 1945 to 2021. The dataset is based on three different levels: cabinet level, legislature level and country level. Regarding the spatial framework of the analysis, which is examined within the different levels, the countries under investigation are 20, clustered into four geographical areas: Northern Europe, Continental Europe, Southern Europe, and the UK and Ireland. The research focus starts from the end of World War II up to the last governments of 2021. For so-called *late democratisation* countries, such as Spain, Portugal and Greece, the period considered starts from the 1970s. Similar to that in the work of Chiaramonte and Emanuele (2017), the temporal framework is divided into four different periods: the Golden Age (1945–1969), the Pre-Fall of the Berlin Wall (1970–1989), the Post-Fall of the Berlin Wall (1990–2007) and the Great Recession (2008–2021). Comparative empirical tests are performed to verify the study's first expectation. The share of minimal winning coalitions is observed to assess the occurrence of such a cabinet type over the complete time frame and across all the countries examined. The comparative analysis focuses on specific geographical areas and periods characterised by critical junctures to test the second and third expectations. Information on governments' characteristics comes from Sonntag (2015) and Casal Bértoa (2021). Data on governments' parliamentary support are provided by the electoral authorities of each country.

Table 1: Countries and cabinets in the dataset

Country	Area	N cabinets
Austria	Continental	32
Belgium	Continental	48
Cyprus	Southern	23
Denmark	Northern	40
Finland	Northern	62
France	Continental	76
Germany	Continental	23

Country	Area	N cabinets
Greece	Southern	29
Iceland	Northern	36
Ireland	UK and Ireland	30
Italy	Southern	67
Luxembourg	Continental	20
Malta	Southern	22
Netherlands	Continental	30
Norway	Northern	32
Portugal	Southern	24
Spain	Southern	17
Sweden	Northern	31
Switzerland	Continental	26
UK	UK and Ireland	30
Total		**698**

We now shift our attention to the operationalisation of our focal variable—cabinet type. Four cabinet types are included: minority governments, oversized coalitions, minimal winning coalitions, and single-party majority governments. Two criteria have been followed. The first is the number of parties participating in the government by holding ministerial seats. The second is the parliamentary seat share to establish whether a government has the majority in the parliament. In the case of bicameral systems, the seat share considered is that of the lower house. Cabinet types have the following characteristics:

a) *Minority governments*: One or more parties form the government. The government does not have the majority of seats in the parliament. To survive, the cabinet needs to rely on the external support of other formations.
b) *Oversized coalitions*: The government includes more parties than the minimal winning formula. Such solutions are labelled the outcome of policy-seeking perspectives (Axelrod, 1970; Mitchell and Nyblade, 2008).
c) *Minimal winning coalitions*: The government includes the smallest number of parties that together can secure a parliamentary majority for the coalition. Such a coalition is formed when parties are primarily concerned about reaching government positions (Riker, 1962).
d) *Single-party majority governments*: The government is formed by just one party, which holds the majority of parliamentary seats.

OCCURRENCE OF MINIMAL WINNING COALITIONS

The empirical records of the occurrence of minimal winning coalitions are interesting. Figure 1 shows the share of the focal variable, i.e. cabinet type, over the entire temporal and spatial framework. In the 20 West European countries in the dataset, minimal winning coalitions are the second most frequent coalition type (28.5%). Multi-party minority governments are the least frequent outcomes of coalition formation (10.5%). In terms of single-party governments, the

share of single-party majority governments (16.5%) is higher than single-party minority governments (13,4%). Overall, coalition governments account for 70% of all West European governments from 1945 to 2021.

Figure 1: Share (%) of cabinet type in 20 Western European democracies (1945–2021)
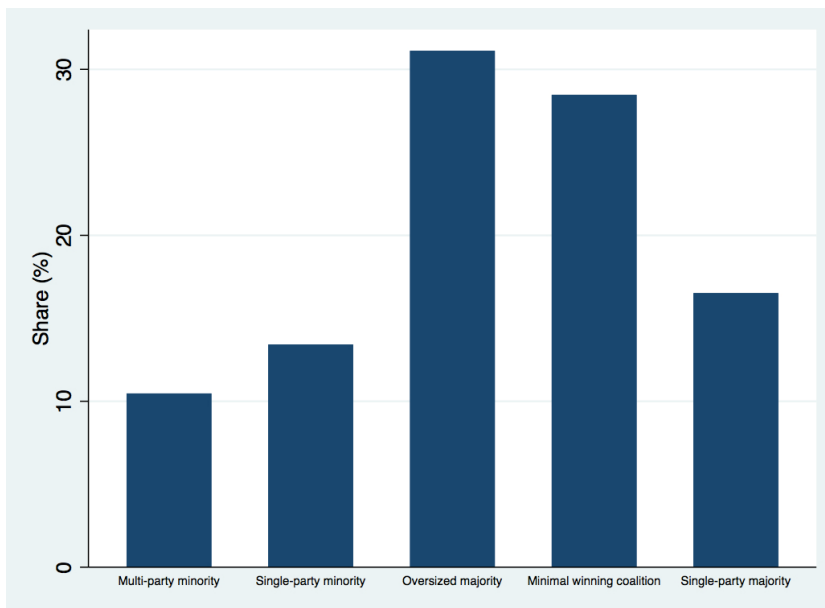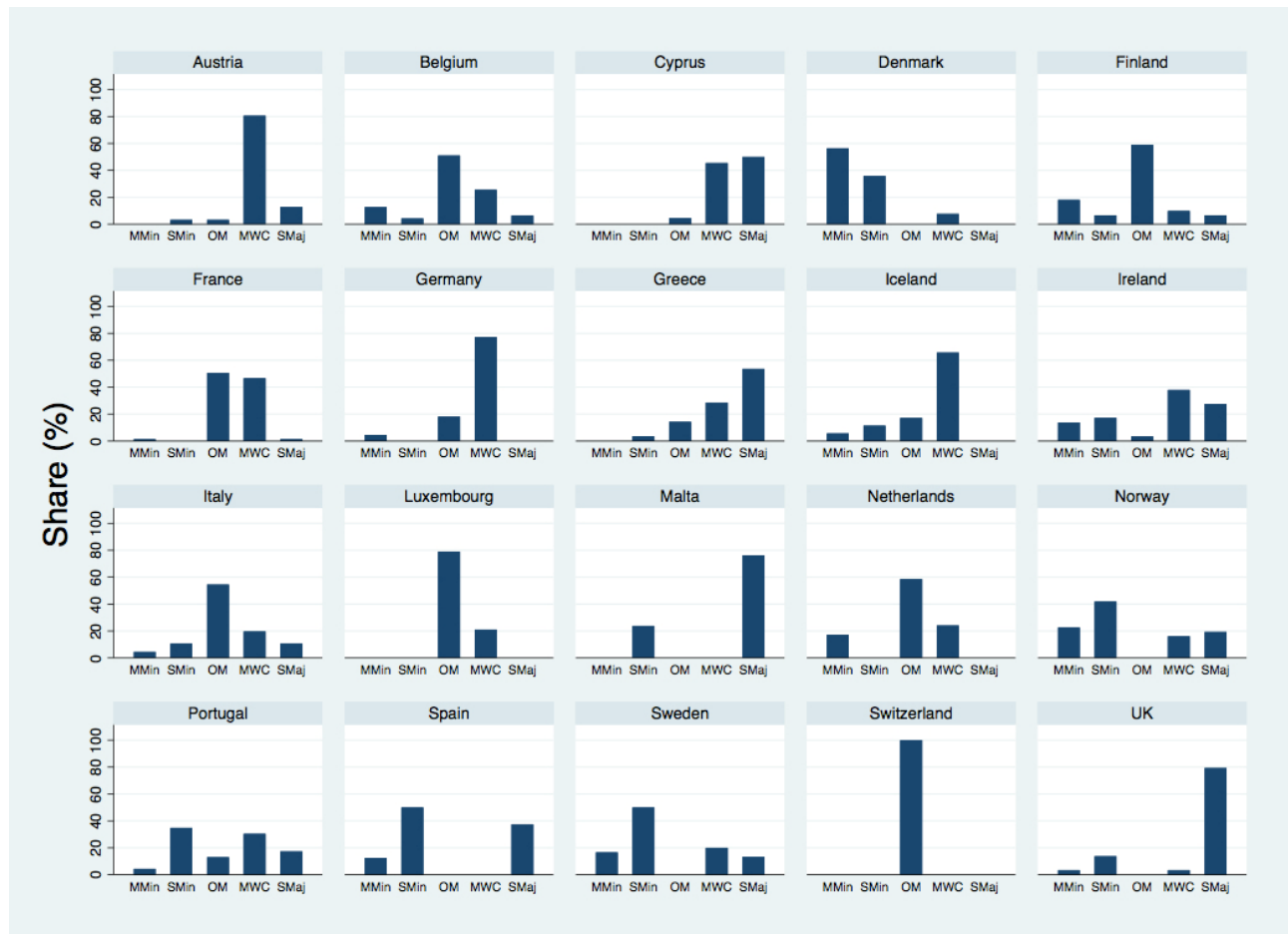

Source: Author's elaboration on original data

Most importantly, although the difference between minimal winning coalitions and oversized majority governments is not large, the latter turns out to be the parties' preferred coalition solution (31%) throughout the investigated period. This suggests that West European party behaviour has not been mainly driven by office-seeking considerations, but an important role is played by ideological concerns when dealing with the government formation process (Axelrod 1970). Nevertheless, the difference in the share of minimal winning and oversized coalitions is not remarkable. This indicates that both considerations play a role in the coalition formation process. Interpreting these results from Riker's perspective, this study could argue that the parties failed to obtain complete information during the bargaining. This lack of information led to non-rational solutions (Riker 1962). Consistent with previous literature (Mitchell and Nyblade 2008), the current study has hypothesised a lower frequency of minimal winning coalitions. The presented results confirm H1.

Figure 2: Share (%) of cabinet type in 20 Western European democracies per geographic area

Source: Author's elaboration on original data

After the broader picture of the occurrence of minimal winning coalitions in Western Europe has been observed, further exploring the issue is essential by gauging possible geographical differentiation. Previous studies have shown a swerving pattern, emphasising that parties might pursue a combination of different goals (Strøm and Müller 1999).

Building on Riker's two-person assumption (1962: 47) and Dodd's proposition (1976), this study expects that minimal winning coalitions should occur more often in less polarised multi-party systems in which two large parties that are willing and able to form either a single-party majority or a grand coalition between them are present, thus limiting other parties' room for manoeuvre. Such a situation is frequent in some specific West European countries. Typically, compared to other European democracies, the Irish party system has always been considered an archetype of the office-seeking model of party behaviour (Marsh and Mitchell 1999). Frequent two-party coalition governments have also been found in Austria (Müller 2000) and Germany (Saalfeld 2002; Schmidt 2008).

Figure 2 shows the share of cabinet type in 20 Western European democracies. The variation amongst countries is considerable. Minimal winning coalitions are the most frequent coalition type in only four countries: Austria, Germany, Iceland and Ireland. In particular, the share of minimal winning governments in Austria and Germany reaches almost 80%, whereas that in Iceland and Ireland stand at 60% and 40%, respectively. Surprisingly, in a quite polarised system, such as France, the share of minimal winning coalitions is even slightly higher than that in Ireland. However, the surplus majority remains the most frequent French coalition type. Minimal winning solutions are also recurrent in Cyprus (45%) and Portugal (30,4%). In the latter

country, other coalition solutions, such as oversized majority governments and multi-party minority governments, comprise 13% and 4% of cabinets, respectively. On the other hand, Figure 2 shows where minimal winning coalitions never occurred. Notably, in three countries, - Malta, Spain and Switzerland - Riker's prediction does not find empirical corroboration. A marginal share is also recorded in Denmark, Finland, and UK. These findings suggest that the two-actor assumption cannot capture the more complex mechanisms underpinning government formation.

While Riker predicted minimal winning coalitions as the most occurring type of government, scholars of parliamentary democracies have already noted that such an outcome was not the norm in most countries (Strøm 1990). In some countries, parties do not adopt office-seeking perspectives. Parties might also be concerned about the potential electoral costs of joining a coalition with rival political formations. They could be reluctant to adopt policy agendas that do not reflect their ideological stances. Alternatively, parties do not have complete information on their counterpart's preferences, thus leading the bargaining to non-optimal outcomes.

Figure 3: Share (%) of cabinet type in 20 Western European democracies per phase
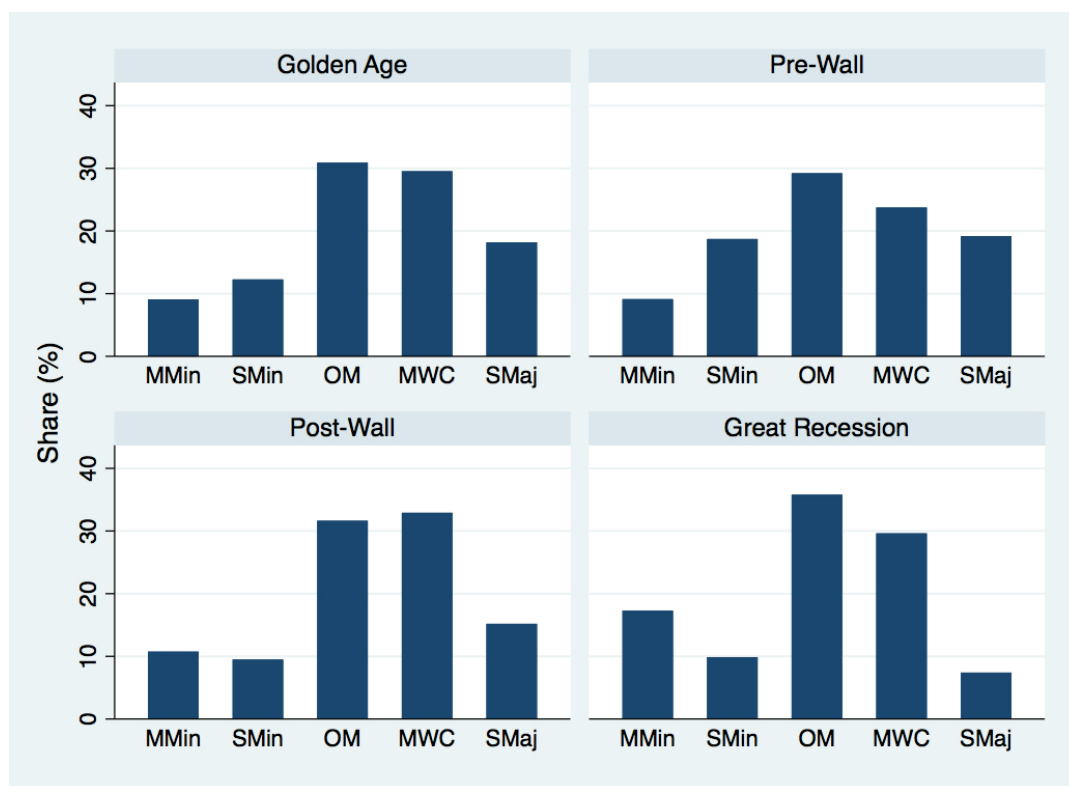
Source: Author's elaboration on original data

So far, the results show that minimal winning coalitions have not been more frequent than oversized majority governments. This finding suggests the (slight) prominence of policy-seeking perspectives over office-seeking approaches and the inadequacy of Riker's proposition. A relevant country differentiation is also confirmed (Franklin and Mackie 1984).

This study's third expectation concerns the presence of temporal variation. Specifically, governmental positions are expected to be less appealing for parties during economic turmoil (Wratil and Pastorella 2018; Alexiadou and Gunaydin 2019), leading to decreased office-seeking considerations. It has been argued that economic shocks play a role in government formation (Robertson 1986), particularly by enhancing the genesis of all pro-system party coalitions (Budge and Keman 1990). Along this path, the study expects minimal winning coalitions to be less frequent than oversized majority governments in economically unfavourable periods (H1b).

Indeed, to dilute government responsibility in times of crisis, parties might opt to involve non-partisan figures (e.g. Emanuele et al. 2022) or enlarge the coalition's size by including other political formations.

Figure 3 shows the share of cabinet types in 20 West European countries by phase. The first period is the Golden Age, which covers the end of World War II up to 1969. This phase has been characterised by impressive growth in the European economy (Denison 1967; Crafts 1995). The share of minimal winning coalitions and oversized majority executives was almost equal during this period, i.e. around 30% for both coalition types. The Pre-Wall phase refers to the period preceding the Berlin Wall's fall. It is characterised by the outbreak of several economic shocks, including the disruptive 1973 oil crisis. From Figure 3, it is possible to observe that parties' office-seeking behaviour started to decline with the passage from the Golden Age to the Pre-Wall period. In the latter phase, reaching executive positions became less profitable, as displayed by the decreased share of minimal winning coalitions and the augmented rate of single-party minority cabinets.

Overall, Riker's and Dodd's propositions are not empirically confirmed. Despite a high degree of sophistication, game theoretic approaches to cabinets' investigation fail to effectively explain phenomena underpinning government formation. While forming a single-party majority seems to be the *magic formula* for a long-lasting cabinet (e.g. Saalfeld 2008), the recent challenges that West European parties face may undermine the possibility of forming such government types. Consequently, parties frequently need to manage different trade-offs when dealing with (often complex) bargaining. Single-party majority governments comprise just 16.5% of executives in Western Europe in the investigated time frame. In this scenario, the parties are relentlessly required to make difficult decisions. Interestingly, the findings suggest the prominence of Abbott Lawrence Lowell's (1896) propositions rather than those of Riker and Dodd. In his *Governments and Parties in Continental Europe*, Lowell (1896: 73-74) argued that 'the parliamentary system will give a country strong and efficient government only if the majority consists of a single party'. Some years later, Lowell's thesis was reflected in Jean Blondel's (1969) work on comparative government. According to Blondel (1969: 342), a one-party government is the factor contributing most decisively to the stability of governments.

CONCLUSION

This study took a preliminary look at some of the oldest predictions in theorising about the occurrence of coalition governments, i.e. the minimal winning criterion. Accordingly, minimal winning governments should be formed with greater likelihood than other government types because they grant a higher life expectancy. The study also investigated how economic context conditions might influence this relationship, expecting fewer minimal winning coalitions in periods of economic hardship. Using an original dataset, this research aimed to explore the assumptions of two main theories in government formation, updating previous studies by expanding both temporal and spatial frameworks.

Consistent with recent literature, the analysis found that minimal winning coalitions have not been more frequent than oversized majority cabinets throughout the time span considered. Notably, the difference between the share of the two coalitions' occurrence increases during times of economic turmoil. During economically prosperous periods, i.e. the Golden Age and the period after the fall of the Berlin Wall, the discrepancy between policy-seeking and office-seeking outcomes has been marginal. Conversely, during unfavourable periods, i.e. the Pre-fall of the Berlin Wall and the Great Recession, an increase in oversized majority governments' share, to the detriment of minimal winning coalitions, is observed. This suggests that office-seeking perspectives alone are not sufficient to determine the type of government formed after the election. Instead, there is a combination of policy-seeking and office-holding goals, indicating that both considerations come into play during government formation. Whether one goal is more

important than the other is a complex issue, and this study offers a preliminary descriptive glance.

Nevertheless, the study is unable to address the entirety of scholarly effort on government formation and duration. It should be noted that considerable work on such matters has been done recently (e.g. Bergman et al. 2021). On the one hand, the literature on government formation has deeply investigated the type of government formed by proposing new analytical frameworks and focusing on the portfolio allocation process, updating the analysis of *who gets what* beyond *who gets in* (Bergman et al. 2021). On the other hand, novel developments in the field of government stability have shed light on the tremendous impact exerted by factors that do not belong to cabinets' structures (Walther and Hellström 2019).

Overall, enduring government configurations are struggling to emerge from the bargaining process in Europe. This potentially damaging convergence seems to make room for instability at the systemic level. In these circumstances, potential ruling parties are dramatically challenged, as they need to establish compromise and agreements with other parties while maintaining credibility vis-à-vis their constituencies and remaining ideologically consistent. In Europe, some parties found enduring solutions to this problem, e.g. the magic formula in Switzerland. By contrast, Italian parties were unable to solve frequent intracoalitional conflicts, increasing the Italian government's instability (Improta 2022). In terms of future paths, the outbreak of new challenger parties in legislatures would not make life easier for present and future *formateurs*, as their anti-establishment stands make them partners that are difficult to negotiate with. Furthermore, coalition governments are becoming the rule of European politics so much so that even majoritarian political systems, such as that of the UK, have formed the first coalition government since 1945 (the 2015 Cameron–Clegg coalition). Therefore, the only answer to the problem of instability in a Europe that lacks stable ruling solutions is greater inter-party cooperation in government coalitions.

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REFERENCES

Alexiadou, D. and H. Gunaydin (2019). "Commitment or expertise? Technocratic appointments as political responses to economic crises". *European Journal of Political Research*, *58*(3): 845-865. https://doi.org/10.1111/1475-6765.12338

Andeweg, R. W., L. De Winter and P. Dumont. (2011). *Puzzles of Government Formation: Coalition Theory and Deviant Cases*. Milton Park: Taylor & Francis.

Axelrod, R. (1970). *Conflict of Interest*. Chicago: Markham.

Bardi, L., S. Bartolini and A. H. Trechsel. (2014). "Responsive and responsible? The role of parties in twenty-first century politics". *West European Politics*, *37*(2): 235-252. https://doi.org/10.1080/01402382.2014.887871

Bergman, T., H. Bäck and J. Hellström. (2021). *Coalition Governance in Western Europe.* Oxford: Oxford University Press.

Blondel, J. (1969). *Comparative Government: A Reader*. London: Palgrave Macmillan.

Browne, E. C., J. P. Frendreis and D. W. Gleiber (1984). "An "events" approach to the problem of cabinet stability". *Comparative Political Studies*, *17*(2): 167-197.

Browne, E. C., J. P. Frendreis and D. W. Gleiber. (1986). "The process of cabinet dissolution: An exponential model of duration and stability in western democracies". *American Journal of Political Science, 30*(3): 628-650.

Budge, I. and H. Keman. (1990). *Parties and Democracy: Coalition Formation and Government Functioning in Twenty States*. Oxford: Oxford University Press.

Budge, I. and M. Laver (1986). "Office seeking and policy pursuit in coalition theory". *Legislative Studies Quarterly, 11*(4): 485-506.

Casal Bértoa, F. (2021). *Database on Who Governs in Europe and beyond, PSGo.* Available at: www.whogoverns.eu.

Chiaramonte, A. and V. Emanuele (2017). "Party system volatility, regeneration and de-institutionalization in Western Europe (1945-2015)". *Party Politics, 23*(4): 376-388. https://doi.org/10.1177/1354068815601330

Crafts, N. (1995). "The Golden Age of economic growth in Western Europe". *Economic History Review*, *48*: 429–47.

Dahl, R. A. (1961). *Who Governs? Power and Democracy in an American City.* New Haven: Yale University Press.

Denison, E. (1967). *Why Growth Rates Differ*. Washington DC: Brookings Institution.

De Swaan, A. (1973). *Coalition Theories and Cabinet Formations*. Amsterdam: Elsevier.

De Winter, L. and P. Dumont. (2008). Uncertainty and Complexity in Cabinet Formation. In K. Strøm, W. C. Müller and T. Bergman (Eds.), *Cabinets and Coalition Bargaining: The Democratic Life Cycle in Western Europe* (pp. 123-157). Oxford: Oxford University Press.

Diermeier, D. and A. Merlo. (2000). "Government turnover in parliamentary democracies". *Journal of Economic Theory*, *94*(1): 46-79.

Dodd, L. C. (1974). "Party coalitions in multiparty parliaments: A game-theoretic analysis". *American Political Science Review*, *68*(3): 1093-1117.

Dodd, L. C. (1976). *Party Coalitions and Parliamentary Government*. Princeton: Princeton University Press.

Döring, H. and P. Manow. (2012). *Parliament and Government Composition Database* (ParlGov). *An Infrastructure for Empirical Information on Parties, Elections and Governments in Modern Democracies.* Available at: www.parlgov.org.

Downs, A. (1957). *An Economic Theory of Democracy*. New York: Harper.

Emanuele, V., Improta, M., Marino, B., & Verzichelli, L. (2022). Going technocratic? Diluting governing responsibility in electorally turbulent times. *West European Politics*, 1-29. https://doi.org/10.1080/01402382.2022.2095494

Franklin, M. and T. Mackie (1984). "Reassessing the importance of size and ideology for the formation of government coalitions in parliamentary democracies". *American Journal of Political Science, 28*: 671-92.

Gamson, W. A. (1961). "A theory of coalition formation". *American Sociological Review*, *26*(3): 373-382.

Grofman, B. (1989). "The comparative analysis of coalition formation and duration: Distinguishing between-country and within-country effects". *British Journal of Political Science*, *19*(2): 291-302.

Improta, M. (2022). Unpacking government instability. Cabinet duration, innovation, and termination events in Italy between 1948 and 2021. *Quaderni di scienza politica*, *29*(2), 151-180. https://doi.org/10.48271/104790.

King, G., J. E. Alt, N. E. Burns and M. Laver. (1990). "A unified model of cabinet dissolution in parliamentary democracies". *American Journal of Political Science, 34*(3): 846-871.

Krauss, S. and M. Thürk. (2021). "Stability of minority governments and the role of support agreements". *West European Politics,* 1-23. https://doi.org/10.1080/01402382.2021.1890455

Laver, M. and K. A. Shepsle. (1996). *Making and Breaking Governments: Cabinets and Legislatures in Parliamentary Democracies*. Cambridge: Cambridge University Press.

Leiserson, M. (1966). *Coalitions in Politics: A Theoretical and Empirical Study*. New Haven: Yale University.

Leiserson, M. (1968). "Factions and coalitions in one-party Japan: An interpretation based on the theory of games". *American Political Science Review*, *62*(3): 770-787.

Lowell, A. L. (1896). *Governments and Parties in Continental Europe* (Vol. 2). Boston: Houghton Mifflin.

Mair, P. (2009). *Representative versus Responsible Government*. Cologne: MPlfG WorkingArticle09/8. Max-Planck-Institut für Gesellschaftsforschung.

Marsh, M. and P. Mitchell. (1999). Office, Votes, and Then Policy: Hard Choices for Political Parties in the Republic of Ireland 1981–1992. In W. C. Müller and K. Strøm (Eds.), *Policy, Office, or Votes? How Political Parties in Western Europe Make Hard Decisions* (pp. 36-62). Cambridge: Cambridge University Press.

Mitchell, P. and B. Nyblade. (2008). Government Formation and Cabinet Type. In K. Strøm, W. C. Müller and T. Bergman (Eds.), *Cabinets and Coalition Bargaining: The Democratic Life-Cycle in Western Europe* (pp. 201-237). Oxford: Oxford University Press.

Müller, W. C. (2000). Austria: Tight Coalitions and Stable Government. In W. C. Müller and K. Strøm (Eds.), *Coalition Governments in Western Europe* (pp. 86-126). Oxford: Oxford University Press.

Müller, W. C. and K. Strøm. (2000). *Coalition Governments in Western Europe*. Oxford: Oxford University Press.

Müller-Rommel, F., K. Fettelschoss and P. Harfst. (2004). "Party government in Central Eastern European democracies: A data collection (1990-2003)". *European Journal of Political Research, 43*(6): 869-893.

Pastorella, G. (2016). "Technocratic governments in Europe: Getting the critique right". *Political Studies*, *64*(4): 948-965. https://doi.org/10.1111/1467-9248.12217

Riker, W. H. (1962). *The Theory of Political Coalitions*. New Haven: Yale University Press.

Robertson, D. (1986). *A Theory of Political Competition*. London: Wiley.

Robertson, J. D. (1983). "The political economy and the durability of European coalition cabinets: New variations on a game-theoretic perspective". *The Journal of Politics*, *45*(4): 932-957.

Saalfeld, T. (2002). "The German party system: Continuity and change". *German Politics*, *11*(3): 99-130.

Saalfeld, T. (2008). Institutions, Chance and Choices: The Dynamics of Cabinet Survival in the Parliamentary Democracies of Western Europe (1945-99). In K. Strøm, W. C. Müller and T. Bergman (Eds.), *Cabinets and Coalition Bargaining: The Democratic Life Cycle in Western Europe* (pp. 327-369). Oxford: Oxford University Press.

Schmidt, M. G. (2008). Germany: The Grand Coalition State. In J. M. Colomer (Ed.), *Comparative European Politics* (pp. 68-103). London: Routledge.

Schofield, N. (1987). "Stability of coalition governments in Western Europe: 1945–1986". *European Journal of Political Economy*, *3*(4): 555-591.

Somer-Topcu, Z. and L. K. Williams. (2008). "Survival of the fittest? Cabinet duration in Post- Communist Europe". *Comparative Politics*, *40*(3): 313-329.

Sonntag, L. (2015). *Politica.* Available at: http://www.kolumbus.fi/taglarsson/.

Strøm, K. (1990). "A behavioral theory of competitive political parties". *American Journal of Political Science, 34*(2): 565-598.

Strøm, K. and W. C. Müller. (1999). Political Parties and Hard Choices. In W. C. Müller and K. Strøm (Eds.), *Policy, Office, or Votes? How Political Parties in Western Europe Make Hard Decisions* (pp. 1-35). Cambridge: Cambridge University Press.

Strøm, K., W. C. Müller and T. Bergman. (2008). *Cabinets and Coalition Bargaining: The Democratic Life Cycle in Western Europe.* Oxford: Oxford University Press.

Verzichelli, L. (2008). Portfolio Allocation. In K. Strøm, W. C. Müller, and T. Bergman (Eds.), *Cabinets and Coalition Bargaining: The Democratic Life Cycle in Western Europe* (pp. 237-269). Oxford: Oxford University Press.

Von Neumann, J. and O. Morgenstern. (1947). *The Theory of Games and Economic Behavior*. Princeton: Princeton University Press.

Walther, D. and J. Hellström. (2019). "The verdict in the polls: How government stability is affected by popular support". *West European Politics*, *42*(3): 593-617. https://doi.org/10.1080/01402382.2018.1490598

Warwick, P. (1979). "The durability of coalition governments in parliamentary democracies". *Comparative Political Studies*, *11*(4): 465-498.

Warwick, P. (1992). "Ideological diversity and government survival in Western European parliamentary democracies". *Comparative Political Studies*, *25*(3): 332-361.

Warwick, P. (1994). *Government Survival in Parliamentary Democracies*. New York: Cambridge University Press.

Warwick, P. (2005). "Do policy horizons structure the formation of parliamentary governments?: The evidence from an expert survey". *American Journal of Political Science*, *49*(2): 373-387.

Woldendorp, J., H. Keman and I. Budge. (2000). *Party Government in 48 Democracies (1945-1998)*. Boston: Kluwer Academic Publishers.

Wratil, C. and G. Pastorella. (2018). "Dodging the bullet: How crises trigger technocrat-led governments". *European Journal of Political Research*, *57*(2): 450-472. https://doi.org/10.1111/1475-6765.12234