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Cycle XXXV

"Staying Alive"
The Patterns and Dynamics of Government
Stability in 21 Democracies (1945-2021)

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Introduction

Governing democracies is an arduous task. Different from autocracies, rulers in democratic systems must deal with several challenges beyond ‘normal’ tasks (e.g., law-making). During the life cycle of a democratic cabinet, prime ministers and cabinet members are confronted with voters fluctuations, public opinion shocks, media attention, and opposition parties’ criticism putting increased pressure on governmental performance in addition to the complexity of ‘simple’ policy-making and ruling duties. Within this framework, heads of cabinets and ministers struggle to deliver effective policies, risking failing to fulfil the requirements of *responsible* governance coming from supranational institutions and globalised markets. However, at the same time, they risk failing to satisfy citizens’ needs and demands, thus losing also on the *responsive* side of governance (Mair 2009; Lefkofridi and Nezi 2020).

European democracies are experiencing a sedimented crisis of party politics. The unrelenting decay in party memberships¹ (Tan 1997; Van Biezen, Mair, and Poguntke 2012), the growing distrust towards parties and political institutions (Muro and Vidal 2017; Bertou 2019), the increased recourse to technocratic government personnel (Alexiadou and Gunaydin 2019; Wrátil and Pastorella 2018; Emanuele, Improta, Marino, and Verzichelli 2022), the decline in voter turnout (Gray and Caul 2000; Kostelka and Blais 2021), the problem of affective polarisation (Hetherington 2009; Torcal and Comellas 2022) and the deinstitutionalisation of party systems due to disloyalty of electoral constituencies (Chiaromonte and Emanuele 2022) are just a few red flags indicating a concerning ‘bad health’ of our democracies. All the presented macrotrends are in addition to microtrends and exogenous shocks like the pandemic and the war. Before such recent disruptive events, Peter Mair (2013), when referring to the transformations occurring in the political arenas of developed countries, was already (and famously) talking about the ‘hollowing of Western democracy’.

How can a democratic government deal with all this complexity? How can policies be designed according to a long-term perspective, taking into consideration the short run but

¹ In particular, according to Gauja and Van Haute (2015) the traditional ‘mass parties’, such as the social democrats and the Christian democrats, are those suffering from the most pervasive membership declines. This is even more telling, as such parties are typically ‘government parties’ (Carty 2022).

also the needs of future generations? The first thing that would come to mind would be time. Governments need time to effectively cope with crucial challenges and design and implement successful policies. In other words, the government would need stability. As Huber (1998) argued, unstable governments usually record poor policy performance. For some authors, unstable governments even undermine the whole well-functioning of the democratic system (Linz 1978; Warwick 1994). According to Lijphart (1999), short-lived governments would dramatically fail effectively interact and collaborate with the legislatures. However, governments can record a high tenure while being irresponsible, unresponsive, and ineffective in implementing sound policies, thus ending up in what Giovanni Sartori defined ‘ruling immobility’ (Sartori 1982). In this thesis, I share the recent consideration by D’Alimonte and Mammarella (2022), who argued that stability is certainly not a *sufficient* condition for effective governance, yet it is no doubt *necessary* at least to create the conditions for it.

Recent political developments offer several instances of the negative implications of government instability. Italy, in this regard, is a spectacular example. Government instability is widely recognised as a distinctive feature of the Italian political system. Indeed, Italian cabinets are among the most short-lived in Europe, having served for less than the average duration in Western Europe. Such a pathology caused several negative consequences on the Italian government’s performance. At a recent outing in 2017, former Prime Minister Romano Prodi² remembered an anecdote in this regard dating back to his first meeting in his capacity of Italian government’s head with German chancellor Helmut Kohl. At the end of this meeting, says Prodi, Kohl asked him ‘who is coming next time?’. Thus, the proverbial Italian government instability negatively influences governmental personnel’s credibility in fulfilling their end of the bargain – thus reducing accountability. Also, in a supranational and globalised framework, leaders are forced to limit the room for collaboratively envisioning future objectives and challenges. In other words, even the world of international relations and cooperation is affected by the instability issue; it does not only affect domestic politics.

Time has passed from Prodi’s meeting with Kohl. However, Italian government instability is still distinctly visible. In this regard, government crises have dominated the media agenda since 2019. Indeed, after the first government crisis elicited by Matteo

² Full video can be accessed via this link: <https://video.repubblica.it/mondo/morto-kohl-prodi-al-primo-incontro-mi-chiese-la-prossima-volta-chi-viene/278777/279380>.

Salvini, leader of the League (*Lega*), terminating the first Conte cabinet formed in 2018, a new government once again headed by Giuseppe Conte was sworn in. On 28 December 2020, after several meetings between representatives of the ruling coalition to mediate divergences had failed, Matteo Renzi, leader of the small – but equipped with critical blackmail potential – Italy Alive (*Italia Viva*, IV), attacked Conte announcing 61 points of criticism to the Italian Recovery Plan. The ensuing government crisis was eventually enhanced on 13 January 2021, with IV's ministers sending a four-page letter formalising their resignations. The government crisis caused a political deadlock. Therefore, President of the Republic Sergio Mattarella asked former banker Mario Draghi to form a technocratic-led government and start consultations with Parliament. Draghi was sworn in as prime minister on 13 February. However, Draghi did not manage to turn the tide when it comes to the issue of Italian government instability. The third government crisis in four years broke out on July 14, 2022, as a result of the withdrawal of support by the Five Star Movement (*Movimento 5 Stelle*, M5S), League, and Forward Italy (*Forza Italia*, FI).

However, government instability is not a problem of Italian democracy only. Other countries are indeed experiencing frenetic government turnover, and voters are frequently called to show up at the polls. Israel, in this regard, is an excellent case. As a consequence of several government crises and challenging government formation processes, citizens are going to the polls to elect a new *Knesset* (the Israeli Parliament) for the fifth time in less than four years. In Israel, such electoral turbulences were accompanied by 'classic' security issues and financial problems (Neuberger 2022). Indeed, while peace agreements with the Palestinian authorities are still far from being reached, the Knesset failed several times to approve the budgetary law in due time. As a result, the Knesset was automatically dissolved by law, and the country currently faces turmoil.

Given the examples provided, one might think that government instability is just a problem of divided societies with consensus ruling style (see Lijphart 1999) that make the eruption of government crises and intracoalition conflicts easy. Government parties, in fact, are allies when in a coalition but, at the same time, they are formations competing with one another (Marangoni and Vercesi 2015). However, the recent political developments occurring in the governmental arena of the United Kingdom demonstrate the pervasiveness of instability even in systems commonly regarded as stable, typically Westminster models (Lijphart 1999; Weller, Grube, and Rhodes 2021; Helms and Vercesi 2022).

In the United Kingdom, the second administration guided by Boris Johnson, saw many of its members resign in early July 2022 in light of scandals about their misconduct while serving. A series of scandals plagued the government. Notably, Johnson and other cabinet members were accused of disregarding the rules concerning the limitation of the spread of the pandemic, particularly lockdown. On July 7, Johnson announced that he would step down as leader of the Conservative Party (CP) until a new leader was elected. Liz Truss was elected as the CP's leader on September 5, thus taking over as prime minister the day after. Economic growth, in response to a stagnating economic situation, was the Truss government's primary goal. The policy plan outlined by the then-Chancellor of the Exchequer (the equivalent of the Minister of the Economy and Finance in other political systems) Kwasi Kwarteng was mainly based on borrowings. The markets responded negatively to the release of this governmental plan. As a result, the economic situation even worsened. On October 20, 2022, Truss resigned as prime minister, becoming the shortest-serving one in all British history.

Beyond demonstrating the topicality of the instability issue even in stable systems, Truss' brief governmental experience also documents the increased centrality of markets and financial players in influencing the life cycle of government; the role of such new actors is carefully taken into account in this thesis.

In light of the dangerous consequences deriving from government instability, political science has devoted considerable attention to this matter. However, there is still a lack of systematic studies *exclusively* dedicated to investigating government stability. Scholars, indeed, mainly focused on the earlier stages of democratic governance, in particular government formation. The main research question from which the thesis starts is, therefore, the following: what are the main factors influencing government stability? In other words, what are the potential 'long-life elixirs' boosting the survival rates of governments? What are the potential drivers depressing stability, instead?

Despite a considerable body of literature, existing studies suffer from a number of shortcomings. Most importantly, scholars have not yet reached a shared consensus on the determinants of government stability. This results from issues concerning the methodology adopted, different measurements, operationalisations, and conceptualisations, and reduced parsimony when it comes to theory-building (and, consequently, theory-testing). As a result, government stability research highlighted that several factors play a significant role when it comes to government stability, yet none of these factors plays the lion's share. To put it in simple terms, *everything counts a bit*.

The present thesis aims to provide scholars, pundits, policy-makers, and readers with a systematic and comprehensive account of government stability in 21 democracies, introducing a novel explanatory framework and a manually-collected fresh original longitudinal multilevel dataset. As anticipated, this thesis' ultimate goal is to understand what are the factors leading to increased or reduced stability of governments. To answer this question, I have collected a wide array of data concerning 21 democracies and performed a comparative longitudinal analysis across 21 countries³. I have included not only democracies that have been traditionally studied in government stability research (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, and the United Kingdom), but also other democracies that have been usually overlooked (Cyprus, Iceland, Israel, Luxembourg, Malta, and Switzerland).

Moreover, the temporal framework of this thesis allows detection of both macrorends and peculiarities. The primary justification for deciding the temporal span is the democratic instauration criterion. Therefore, for most countries investigated, the start year is 1945. However, so-called late democratisation countries (Huntington 1993) like Portugal, Spain, and Greece have displayed liberal-democratic governments only since the late 1970s. In this vein, the timespan is broader or shorter depending on the beginning of the countries' democratic experience⁴. Therefore, the governments under investigation were mostly born after World War II (WWII). The last governments considered are those born up to the last months of 2021. Overall, covering almost 80 years, the thesis considers more than 700 governments and 400 elections in 21 democracies from 1945 to 2021.

To properly test the impact of relevant factors on government stability, the variables collected in the dataset and included in the analyses belong to three different levels. Variables concerning country characteristics, electoral features, and governmental attributes have been indeed considered. As a result, the dataset took the form of a multilevel structure, with observations recorded at the country-, election-, and government-level. With such a data structure, the empirical strategy adopted was to perform the standard methodology in the literature, i.e., survival analysis (belonging to

³ I thank Vincenzo Emanuele for his help with data collection and, in particular, for making available election-level data.

⁴ Nonetheless, no country in the dataset shifted from a democracy to an autocracy at the time of data collection and writing this thesis.

the family of event history modelling) specifying a shared frailties option⁵ to control for the multilevel-related specificities.

The main results deriving from the empirical analysis are fourfold. First, they document the destabilising role of some cabinet types. In detail, both undersized (i.e., minority) and oversized governments increase the risk of government termination. This is because, on the one hand, undersized governments cannot rely on a solid parliamentary majority, and ensuing frequent negotiations with externally-supporting partners over policies are likely to lead to intracoalition conflicts. On the other hand, oversized and minimal winning coalitions are risky configurations for ruling parties seeking stability. In minimal winning situations, the withdrawal of any single party can result in a government termination (Chiru and De Winter 2021). Oversized coalitions are instead undesirable because they include unnecessary parties, thus increasing the room for conflicts as a consequence of having established the cabinet as a ‘crowded room’. Single-party majority governments hold crucial stabilising effects. The absence of transaction costs and the reduced room for conflicts, emerging only as infighting, allowing ruling parties to focus more on policy-making. However, single-party majority governments are often the result of a specific institutional architecture easing the formation of solid majorities in parliament. Therefore, the first policy recommendation (for government stability-seekers) deriving from such results would be to design institutional provisions facilitating the formation of single-party majority governments.

Furthermore, the findings show the integral effect exerted by the constructive vote of no-confidence – a fundamental institutional mechanism for ‘rationalising’ parliamentary systems (Lijphart 2004; Rubabshi-Shitrit and Hasson 2022), requiring the simultaneous appointment of a successor cabinet to depose a government successfully (Lento and Hazan 2022). The stabilising effect of this more restrictive motion of no-confidence is relevant as policymakers could draw upon it when designing reforms seeking to solve issues of government instability. Therefore, policymakers might consider adopting the constructive vote of no-confidence in the institutional framework of a conflictual and unstable political system⁶.

⁵ I thank Till Weber for his suggestions on this matter.

⁶ Back in the day, Lijphart (2004) already suggested the adoption of the constructive vote of no-confidence as an effective instrument for limiting conflicts in the governmental arena of divided societies ruled according to a consensus style. However, as the constructive vote of no-confidence also affects the broader relationships between the executive and legislative branches, this more restrictive motion should be adopted in *parliamentary* systems with unstable and fragile cabinets. Systems in which the government is not subject to the confidence relationship to form, such as in Scandinavia, see Strøm (1990), or operating in

Third, the results testify a significant impact of coalition agreements on governments' reduced risk of termination. Such agreements provide ruling parties with a shared programmatic plan to follow throughout governance, which can be useful in preventing policy clashes among coalition partners. In this light, coalition agreements operate as mechanisms limiting intracoalition conflicts, and, as a consequence, reduce the likelihood of government termination. To support government stability, policymakers can therefore consider formalising the presence of coalition agreements as a rule to follow during the government formation stage of the democratic life cycle.

Lastly, the findings show the destabilising effect of increased parliamentary fragmentation. In this regard, stability-oriented constitutional engineering efforts could include mechanisms limiting the fragmentation in parliament. Typically, this goal can be reached by limiting the fragmentation in the 'entrance', i.e., by requiring high electoral thresholds to express members in the legislature or fragmentation once the parliament is in full operation, like anti-defection laws limiting the possibility for members of parliament to giving rise to small parliamentary groups as a result of their defection from the original group. Both solutions might be viable for tackling the fragmentation problem.

All the presented results are obtained after controlling for relevant factors, most of which were vital in previous studies on government stability. In a nutshell, the thesis' findings indicate that the driving force underpinning government instability is the existence of different sources of intracoalition conflict. This is the common thread linking all the effects to one another.

The thesis⁷ consists of this introduction, five core chapters and the conclusion. Chapter 1 delineates the theoretical background and hypotheses of the thesis. After thoroughly reviewing the considerable body of literature dedicated to government stability, highlighting in particular the research traditions and the 'way forward', it presents the hypotheses and a novel explanatory framework. Specifically, governments' paths to collapse or survival are interpreted as influenced by three main dimensions: a) government vulnerability, b) strategic considerations, and c) resources. All these dimensions entail different factors potentially leading to different outcomes. Concerning

presidential or semi-presidential systems should be excluded by institutional reforms comprising the inclusion of the constructive vote of no-confidence.

⁷ This thesis represents the continuation of my previous research conducted on government stability. In this regard, I wish to thank Roberto D'Alimonte for his helpful advice during his role as supervisor of my master's thesis on government stability. This master's thesis can be accessed via this link: http://tesi.luiss.it/24486/1/633262_IMPROTA_MARCO.pdf.

government vulnerability, such a vulnerability might be caused by a turbulent environment or the complexity in the party system. Turbulence and complexity might eventually lead to government collapse. As for strategic considerations, the actors playing the governmental game might deem government experience as profitable (office-seeking perspective) or as a risk. Therefore, actors may strategically opt for terminating the government (as noted by Strøm and Swindle 2002). Finally, the government can be born with valuable stabilising resources or not. As previously mentioned, governments may have a ruling configuration limiting conflicts. Instead, governments may rule in political systems in which institutions limiting conflicts and removal are present.

Chapter 2 illustrates the research design and methodology. It presents the features and the structure of the original multilevel dataset built for the thesis, particularly by delineating its hierarchical configuration. In this methodological chapter, the characteristics of the empirical analysis are presented, focusing on its rules and tests to perform for reliable results. Moreover, Chapter 2 delves deeper into the information regarding the failure variable, the analysis time, and the independent variables, providing insights into their descriptive statistics. Finally, to fully acknowledge the great number of effort the literature put into the issue of government stability, this chapter provides an in-depth illustration of the control variables considered in the analyses.

Then, considering the extensive temporal and spatial framework at disposal, Chapter 3 analyses the temporal trajectories, national variations, and the different types of government instability in the 21 democracies investigated. Crucially, the analysis of the temporal evolution of government instability demonstrates that the current (turbulent) times are those recording the lower government durations, signalling an increased room for political instability at large. Within this framework, the region suffering the most from increased government instability is Southern Europe, and particularly the Italian and Greek governments. Alongside government duration, Chapter 3 delves deeper into additional indicators of instability. Indeed, by exploring patterns of *ruling* instability leveraging the concepts of returnability (Warwick 1994) and ministerial experience (Huber and Martinez-Gallardo 2004), the thesis shows that only Finland, Greece, and Italy display both ruling and government instability.

After exploring the temporal and national trajectories of the thesis' *explanandum*, Chapter 4 shifts the focus to the explanatory factors under scrutiny. Specifically, it presents data on the temporal trajectories and national variations of government attributes

(e.g. the type of cabinet), institutions and rules (e.g. coalition agreements), and contextual features (e.g. public debt).

Chapter 5 is devoted to assessing the impact of the explanatory factors on government stability. Based on the methodology described in Chapter 2, it empirically tests the factors potentially affecting government stability through a survival analysis. The hypotheses pertain to three main dimensions: the structural attributes of the governments, the institutional and ruling setup, and the contextual dimension. Chapter 5 includes a paragraph in which the results are discussed and put in light of potential policy measures to solve the issue of government instability effectively. Thus, the thesis aims to function as a practical tool for policymakers as well.

Finally, the concluding part of the thesis summarises the findings of the thesis. It suggests potentially promising avenues for future research, particularly stressing the need for enquiries on the consequences of government instability on essential dimensions of democratic quality, such as voter turnout, satisfaction with democracy, and trust in political institutions and actors.

Overall, the thesis aims to be a useful reading for those interested in politics, especially those concerned with the causes and consequences underpinning the challenging transformations occurring in our contemporary democratic political systems.

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Chapter 1

Theoretical Background and Hypotheses

1.1 Introduction: The ‘then and now’ of the research on government stability

Investigating the factors influencing government stability constitutes a relevant task on several counts. First, as noted by Laver (2003: 23), government stability is ‘a very important substantive concern for political science’. Alongside the significance for the discipline, this topic produces evident consequences for the effectiveness of democratic governance, critically affecting political systems’ and governments’ policy performance (Huber 1998), executive-legislature relationships (Lijphart 1999), and the general democratic regime legitimacy (Linz 1978; Warwick 1994).

However, while the general enquiry of coalition politics has traditionally been centre-stage in political scientists’ contributions since the very beginning of the discipline, government stability⁸ has been only the *second* major interest in coalition government research (Müller, Bergman, and Strøm 2008). A greater focus has been dedicated to the dynamics of government formation, as scholars primarily sought to uncover the mechanisms of ‘who gets in’ in terms of parties’ involvement in government and coalition type outcomes (Mitchell and Nyblade 2008). Additional research questions, such as ‘who gets what’, i.e. party strategies when it comes to sharing ministerial offices among coalition partners, and ‘will it last?’, i.e. cabinet survival probability, have received less attention compared to government formation processes, yet they have been thoroughly examined in some contributions. As for the former, a considerable body of research has tested the classic propositions by Gamson (1961), the so-called ‘Gamson’s Law of Proportionality⁹’ or ‘parity norm’ (Browne and Franklin 1973), giving rise to studies on portfolio allocation (Warwick and Druckman 2001; Verzichelli 2008).

⁸ Similarly to Saalfeld (2008), in this thesis, the terms ‘stability’, ‘duration’, and ‘survival’ will be used synonymously to describe the ‘empirically observed time elapsed between a cabinet’s formation and its termination’ (Saalfeld 2008: 327). It should be noted that an additional term, i.e. ‘durability’, will be used referring to the statistical and theoretical models predicting the potential duration (Laver 2003: 24; Saalfeld 2008).

⁹ Gamson’s Law was suggested by Eric C. Browne and Mark N. Franklin (1973). They posited that coalition governments will distribute portfolios in proportion to each member party’s contribution of seats to the

The latter research question constitutes the core challenge with which cabinet scholars have been confronted. Existing studies have predominantly focused on the ‘hazard rate’, i.e. the governments’ probability of termination at any time (Müller, Bergman, and Strøm 2008), rather than investigating the factors influencing the governments’ actual duration. Investigating government stability represents the main objective of this thesis. It can be argued that the dynamics underpinning government actual duration and the types of government termination are ‘different twins’. Therefore, scholarly efforts on such issues have essentially produced a single body of literature, encompassing contributions dealing with different dependent variables and employing different, and often divergent, methodological strategies.

In this chapter, the existing literature on the broad concept of government stability, including termination types, actual duration, and durability¹⁰ is reviewed and discussed, starting with the first endeavours during the 1960s. Then, the focus is shifted towards what Paul Warwick (1994) labelled ‘survival debates’ between structural attributes and critical events theorists. As a consequence of such (spirited) debates, some scholars sought to provide a unified approach (King, Alt, Burns, and Laver 1990) to tackle both methodological and theoretical issues emerging from the discussion. In addition, the chapter presents the framework adopted for this thesis, drawing on the coalition life cycle (Strøm, Müller, and Bergman 2008; Bergman, Bäck, and Hellström 2021), which also reflects the freshest approach provided by the literature in relation to government stability and, more generally, to coalition politics. The chapter proceeds by elucidating the anchoring points derived from the literature so far and discusses the open issues that still need to be thoroughly addressed. Finally, it introduces the research hypotheses of the thesis, presents the expected causal mechanisms influencing government stability, and concludes.

1.2 Early contributions

coalition. The original Gamson’s consideration referred to the idea that each ruling party expects a payoff in proportion to the weight that it can provide to the coalition (Gamson 1961: 376). Such a proposition has been one of the most prominent landmarks in coalition studies since the 1970s (Carroll and Cox 2007).

¹⁰ The difference between duration and durability has been deeply investigated (Laver 2003) and will be extensively discussed in this thesis. At this stage, however, the main differences between these concepts can be summarised with Walther’s (2017) simple and effective distinction between government actual duration and government durability. According to Walther (2017: 26): ‘Duration is an empirical measure of how long the government managed to stay in office. Durability, in contrast, is the probable duration of the government, i.e. the general ability that it has to survive.’

The first attempt to explain the causes of short-lived cabinets¹¹ mainly focused on cabinet size and dates back to more than a century ago (Lowell 1896). In his investigation of government and parties in Continental Europe, Lawrence Lowell (1896) argued that the lower house of a legislature should include ‘two parties, and two parties only [...] in order that the parliamentary form of government should permanently produce good results’. Taylor and Herman (1971) argued that Lowell’s proposition should be interpreted as a preference towards single-party majority governments, a ruling formula that can limit the room for inter-party conflicts. Lowell (1896) maintained that ‘the larger the number of discordant groups that form the majority, the harder the task of pleasing them all, and the more feeble and unstable the position of the cabinet’. In addition, a second component prompting effective governance is the unity of opposition actors. Overall, Lowell’s assumption (1896) is that the numerical structure of the party system in the legislature is a determinant of government stability (Taylor and Herman 1971).

After the publication of Lowell’s work, several scholars interested in coalition studies advocated for his thesis (Lord Bryce 1921; Laski 1938; Hermens 1941; Duverger 1951). In particular, Maurice Duverger (1951) echoed Lowell’s proposition by stating that ‘Multipartism weakens the government in a parliamentary regime [...] the absence of a majority party makes it necessary to form heterogeneous cabinets based on a coalition, or else minority cabinets’. Consequently, ‘cabinet collapses which are exceptional and rare under the two-party system become normal and frequent’. Almost twenty years after Duverger’s considerations, Jean Blondel (1968) gave renewed attention to Lowell’s propositions, arguing that ‘the duration of governments is unquestionably influenced by the type of party system prevailing in the country’. Along these lines, Blondel (1968) concluded that small or large coalitions appear directly antagonistic to stable government.

To empirically corroborate such theses, Duverger (1951) provided evidence of Lowell’s assumption by performing a comparative analysis of two fragile government experiences, the French Fourth Republic and Weimar Germany, in relation to the more stable United Kingdom. Blondel (1968) zoomed out from an intensive empirical design to an extensive analysis of 17 Western parliamentary democracies between 1946 and 1966, examining the average cabinet duration in different party systems. The evidence

¹¹ As noted by Chiamonte and Emanuele (2022), in Anglo-Saxon countries and particularly in the United Kingdom, cabinet refers to the executive body, while governments refers broadly to executive power and activity, also including the parliamentary majority. In the rest of Western Europe, the two terms tend to overlap and are used synonymously. In this work I follow Chiamonte and Emanuele’s (2022) line of reasoning.

indicated that majority party systems produce more durable cabinets on average than multiparty cabinets, and single-party governments are more durable than coalition governments (Blondel 1968).

Considerations of the size of cabinet in connection to government stability have also stimulated the interest of political scientists adopting rational choice perspectives and game-theoretic methods. Two important instances of this tradition are the contributions of William Gamson (1961) and William H. Riker (1962). Despite neither Gamson nor Riker seeking to theorise about cabinet coalitions and government stability, their propositions have nonetheless profoundly influenced the study of coalition governments (Luebbert 1986). Notably, Riker's size principle (1962) is still centre-stage in empirical investigations on coalitions; according to Riker (1962: 32), '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'. More generally, it is argued that actors should give rise to coalitions just as large as they believe 'will ensure winning and no larger' (Riker 1962: 47). The size principle can be understood in terms of both the number of parliamentary or ministerial offices controlled (Gamson 1961; Riker 1962) and the number of ruling 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, avoiding forming non-rational overwhelming majorities. Based on a game-theoretic analysis of economic behaviour (Von Neumann and Morgenstern 1944), Riker's size principle also posits that all non-winning coalitions may be either blocking or losing (Riker 1962: 40). This assumption signals that, in the case of rationality and perfect information, parties will opt for a minimal winning solution.

Subsequent studies have reshaped the size principle, including additional elements to be taken into consideration. For instance, scholars have suggested that policy distance between parties in the legislature and ideological preferences derived from this distance are carefully considered when it comes to forming a government. Therefore, parties' coalition behaviour is not limited to office-seeking perspectives (Axelrod 1970).

However, one of the main shortcomings of Riker's size principle is that it implies that actors, i.e. parties, possess perfect information and act to acquire the largest possible share of the benefits deriving from the winning situation. In the early 1970s, several studies demonstrated that, at least as far as the prediction of cabinet coalitions was concerned, rational choice theories were weak (Luebbert 1986). The first endeavours seeking to

update the size principle were carried out by Abram De Swaan (1973) and Lawrence Dodd (1974; 1976). Similar to Riker and Gamson's contributions, De Swaan and Dodd's efforts were only partially devoted to the enquiry into government stability. As noted by Luebbert (1986: 237), Dodd and De Swaan 'produced highly original and path-breaking books that sought in different ways to apprehend the phenomenon of government formation and, over time, their works have acquired the status of classics in the [broader] study of governments and party systems'. Breaking the rationalist approach, De Swaan (1973) argued that parties will not survey all possible outcomes and calculate their own and every other actor's preferences. Studying nine European parliaments after 1918, he argued that parties are satisfied in their aspirations if they are merely included in a winning coalition, so they behave in a 'satisfying' rather than a maximising manner.

A few years later, analysing data on coalition governments in parliamentary democracies in two distinct periods, 1918–1940 and 1945–1974, Dodd (1976) explicitly devoted his attention to the issue of (coalition) government instability. Distinguishing between minimal winning coalitions, oversized coalitions, and undersized coalitions, i.e. minority governments, it is *preliminarily* demonstrated that polarisation and fragmentation in the legislature negatively affects the coalition's stability. Despite being anticipatory of future, and more established, findings, Dodd's work (1976) only referred to the impact of polarisation and fragmentation on parties' willingness to bargain and their capacity to obtain full information. In other words, Dodd's contribution was effective in providing a more satisfactory understanding of government stability, going beyond the size principle. Nonetheless, the limitation of his work is that the impact of polarisation and fragmentation refers to the bargaining process during the government formation stage, where parties are confronted with issues related to negotiations and information on other actors' behaviour. Thus, the impact of polarisation and fragmentation cannot be directly linked to governments' actual durations.

1.3 Survival debates

As we have seen from early studies of government stability, cabinet attributes, particularly size, have been in the spotlight. Following Dodd's contributions (1974; 1976), other scholars have stressed additional attributes of the cabinets, developing the 'structural attributes' approach (Strøm 1988). One year after Dodd (1976), Sanders and

Herman (1977) emphasised the role of majority status and low party system fragmentation in boosting government duration, whereas Warwick (1979) focused on the cabinets' ideological compactness and Strøm (1985) highlighted the impact of legislative features, such as formal investiture procedures. Along these lines, Laver (2003) noticed that according to the early-1980s literature, a stable government should be characterised by a single-party majority status or ideologically cohesive minimal winning coalitions operating in a party system with low fragmentation. Conversely, a country with ideologically diverse minority coalitions ruling in highly fragmented party systems is likely to experience government instability. These features represent the very essence of structural attributes theorists' investigations (Strøm 1988). In their works, structural attributes theorists claimed that government stability, using the empirical referent of government duration, can be deterministically presumed considering cabinets' characteristics at the formation stage. Adopting this *a priori* perspective, scholars following this tradition obtained satisfying results from their computations, as the particular attributes that were identified did appear to make 'good intuitive sense' (Laver 2003: 28).

While structural attributes theories were imposing themselves as the main explanations of government stability, a widely differing research programme was being formed. This research was that of the so-called 'critical events' theorists, associated with Eric C. Browne (Müller, Bergman, and Strøm 2008). Adopting a stochastic approach, the grounding assumption of this novel tradition was that 'governments exist in a world of critical events, such as economic crises, wars, international conflicts, political scandals, party splits, policy conflicts, financial and monetary turmoil, and also illnesses and sudden deaths of Prime Ministers and key government personnel' (Browne, Frendreis, and Gleiber 1984). One of the first studies advocating the use of stochastic approaches in relation to government stability regarded the analysis of Italian governments' survival probability (Cioffi-Revilla 1984). In his exponential survival model, Claudio Cioffi-Revilla (1984) showed that Italian cabinets collapse haphazardly, thus defying deterministic and *a priori* analyses performed by structural attribute theorists. A few years later, survival modelling was employed to test cabinets' aleatory downfalls in a wider range of democratic systems (Browne, Frendreis, and Gleiber 1984, 1986; Frendreis, Browne, and Gleiber 1986). In critical events theorists' understanding, governments are exposed to shocks, unrelated to structural attributes of the cabinet but linked to random events. However, the criticisms directed at the competing research tradition were not

corroborated by satisfactory empirical evidence. Analysing 12 established democracies, only Belgium, Finland, Israel, and Italy conformed to Browne, Frenreis, and Gleiber's (1986) theoretical assumptions (Müller, Bergman, and Strøm 2008).

Table 1 - Explanatory factors of government stability according to attributes and critical events theorists

Explanatory factors of government stability	
<i>Structural attributes</i>	Majority status (Low) Party system fragmentation Ideological compactness Single-party status Minimal winning coalition Formal investiture
<i>Critical events</i>	Scandals Economic crises International conflicts Illness of PM and government members Sudden death of PM and government members Party splits

Source: Author's elaboration

As a consequence of the poor empirical evidence emerging from critical events theorists' investigations, the leading figures of the two competing research traditions animatedly discussed the issue in several contributions. These discussions have been labelled by Warwick (1994) as 'survival debates'. The debate between the 'attributes' and 'events' schools of thought was predominantly developed in a prominent work¹² published in the *American Political Science Review* in 1988, characterised by a repartee among Kaare Strøm (1988), Browne's research group (Browne, Frenreis, and Gleiber 1988) and Cioffi-Revilla (1984). As mentioned, the debate was mainly concerned with the best approach to the analysis of the duration of coalition governments in parliamentary democracies. Strøm (1988) paid particular attention to three main criticisms made by critical events theorists to attributes-related explanations of government duration. Such criticisms can be summarised as follows (Strøm 1988):

¹² Interestingly, the paper contained both Strøm's address of critical events' criticism and the ensuing responses. In this way, the paper took the form of a 'symposium'.

- 1) Structural attributes theorists incorporate unrealistic premises and are therefore unpromising (Browne, Frendreis, and Gleiber 1984)
- 2) Structural attributes approaches are deterministic (Browne, Frendreis, and Gleiber 1984; Cioffi-Revilla 1984)
- 3) Structural attributes investigations have been empirically unsuccessful (Browne, Frendreis, and Gleiber 1986)

To begin with, the first criticism is addressed by Strøm (1988), who admitted the relevance and appropriateness of the criticism yet, at the same time, emphasised that most coalition theorists have already relaxed the assumptions considered unrealistic, particularly regarding party preferences, as is visible in many studies (e.g. Laver 1974; Bueno de Mesquita 1975). As for the second criticism, Strøm (1988) believes that the charge of determinism is much less warranted as ‘regression models employed in empirical attributes-related studies are deterministic in the sense of yielding point predictions of cabinet duration, but capture stochastic elements of the process through error terms’ (Strøm 1988: 924). The third and final criticism is directed against the empirical failure of structural attributes. In this regard, Strøm (1988) argued that these critics ‘place excessive emphasis on the coefficient of determination, which may be affected by a variety of factors of little theoretical interest’. Moreover, based on Powell (1982: 149), Strøm (1988) maintained that in attributes-related investigations, two variables alone, including the minimal winning status of the coalition, explain 50% of the variance in cabinet duration (considering in particular Warwick 1979; Strøm 1985). Along these lines, ‘the bottle that is half empty to Browne, Frendreis and Gleiber may be half full to many other social scientists, who would happily accept such explanatory power’ (Strøm 1988: 925).

Browne, Frendreis, and Gleiber (1988) in turn responded¹³ to Strøm by stating that his presentation of their criticisms was ‘a substantially distorted description’ (930). In their counter-reply, they further specified that governments are brought down by some events regardless of attributes such as fragmentation and cabinet status. Importantly, the

¹³ Browne, Frendreis, and Gleiber (1988) curiously started their counter-reply with a personal reference to their relationship with Strøm. In particular, they revealed that ‘for some years we have shared with Kaare Strøm a concern for explaining various processes associated with cabinet government. Indeed, our work is well known to him since we participated jointly on an APSA panel in 1982, where our stochastic model was first introduced [...] his current reading and criticism of our approach is surprising in light of this shared history and our own efforts at cumulative theory development’ (Browne, Frendreis, and Gleiber 1988: 930).

structural and strategic conditions existing at the time of government formation are not appropriate for explaining the length of time the government is expected to survive (Browne, Frendreis, and Gleiber 1988). In addition, they clarified that ‘our labelling of this [process] as deterministic [is] in the sense of searching for the determinants of governmental duration in the characteristics of the government, has not ever before been confused with deterministic versus probabilistic predictive ability’ (Browne, Frendreis, and Gleiber 1988: 931) and that ‘our basic argument remains that while structural attributes may establish the baseline of inherent cohesion of a government, they should be unrelated to the length of its historical tenure unless there is a causal linkage between these structural attributes and the timing of the events that bring about governmental dissolution’ (Browne, Frendreis, and Gleiber 1988: 931).

Despite the intensity of the debate, no relevant advancement in the enquiry of government stability *directly* derived from it¹⁴. According to Laver (2003), both positions manifested sensible and plausible claims. On the one hand, ‘it made intuitive sense to regard some governments as having attributes that made them more durable than others [...] but it also made sense to see governments as being terminated by one of a continuous stream of critical events to which every government is subjected’ (Laver 2003: 28). Yet, neither the structural attributes theorists nor the critical events theorists took account of the concerns of the other (Laver 2003).

Other scholars have further noticed that advocates of the critical events perspective did not offer any answers to the theoretical issues raised by structural attributes theorists (Saalfeld 2008). According to Saalfeld (2008), critical events theorists were ineffective in dealing with the two major criticisms pointed out in relation to their perspective. As regards the main theoretical criticism, Saalfeld (2008) appears to be in line with Strøm’s (1988) scepticism regarding the random and exogenous fall of cabinets, as ‘in reality such events are frequently engineered, or at least affected, by players in the game, i.e. parties inside or outside the government’ (Strøm 1988: 929). Moreover, the main empirical issue concerning critical events assumptions identified by Saalfeld (2008) was represented by Warwick’s contribution (1994), in which it was found that West European cabinets’

¹⁴ However, in this regard, it is important to recall that the unified approach proposed by King, Alt, Burns, and Laver (1990) aimed precisely to solve the dispute between structural attributes and critical events theorists.

hazard rate of discretionary terminations is not constant¹⁵ but tends to increase with cabinet age.

1.4 The unified approach

Laver's (2003) interpretation of the survival debates properly underlines how the debate was mainly centred on the more appropriate event-history methodology for analysing data on government duration rather than the substance of this process. The discussion on the appropriate epistemological approach for understanding the durability of governments has been neglected since the core dispute, i.e. concerning methodological issues, was solved by the emergence of event-history models, which is discussed in this section.

The survival debates came to an end with the emergence of event-history methodologies for analysing government stability. Specifically, the path-breaking work by Gary King, James Alt, Nancy Burns, and Michael Laver (1990) established a novel framework for investigating this topic. Their contribution is commonly known as the 'unified approach'. To solve the dispute and offer theoretical and methodological clarifications to the research field, King and colleagues (1990) proposed an essentially stochastic approach that nonetheless made the hazard rate of governments a function of a range of independent variables, most of which are attributes of particular governments (Laver 2003). In doing so, King, Alt, Burns and Laver renewed the early work of Browne and his research group by improving the statistical theory and methods used to study government stability.

The unified approach takes account of the fact that the observed pattern of terminations implies a Poisson process, i.e. government duration is not assumed to be normally distributed but is given an appropriate functional form (King, Alt, Burns, and Laver 1990; Laver 2003). At the same time, the probability of a government termination at any time is made a function of those independent variables that interest the researcher (Laver 2003). However, it is crucial to underline that in adopting this perspective, the unified approach confirmed the validity of the structural attributes investigations' earlier findings, particularly emphasising the impact of the majority status of the government on fostering government duration. A few years after the publication of the unified approach,

¹⁵ This is crucial, as, for instance, the risk of a discretionary cabinet termination should not be increased in the early days or later in the life of a cabinet (Saalfeld 2008).

a growing volume of literature started to refine and further develop King and colleagues' (1990) strategy. The most prominent and successful attempt is that of Arthur Lupia and Strøm (1995), which developed a testable and dynamic model of discretionary coalition dissolutions, emphasising the role of transaction costs in uncovering these dynamics (Saalfeld 2008; see also its refinement in Lupia and Strøm 2008). After the establishment of the unified approach, the theoretical and methodological debates were mainly concerned about issues of the shape of hazard rates (Diermeier and Stevenson 1999), prompting a series of methodological discussions on this topic and its implications (see in particular Alt and King 1994; Diermeier and Merlo 2000).

Alongside the theoretical and methodological innovation brought by the unified approach and its further developments, King and colleagues' contribution (1990) provided fresher empirical evidence on the attributes-related factors explaining government stability. Besides the already mentioned majority status of the cabinets, new covariates were found to exert a significant effect in boosting government stability.

Table 2 - Explanatory factors tested in King, Alt, Burns, and Laver (1990)

Explanatory factors tested in King, Alt, Burns and Laver (1990)		
<i>Variables</i>	<i>Expected impact on duration</i>	<i>Interpretation</i>
Identifiability of formation outcomes	positive	Identifiability reduces the complexity of bargaining environment
Opposition influence	negative	Opposition influence increases the likelihood of minority governments
Electoral volatility	negative	Volatility increases the complexity of bargaining environment
Responsiveness	negative	Responsiveness increases the sensitivity to electoral trends, thus diminishing cabinet duration
Fractionalization	negative	Fractionalization increases the complexity of bargaining environment
Polarization	negative	Polarization increases the complexity of bargaining environment
Majority status	positive	Majority governments are less likely to be defeated in parliament, thus expected to last longer
Opposition concentration	negative	Opposition concentration facilitates the creation of legislative coalitions to defeat a government
Crisis duration	negative	Lengthy crisis duration indicates a more difficult bargaining situation
Formation attempts	negative	Several failed formation attempts signal a complex bargaining environment

Source: Author's elaboration on King, Alt, Burns, and Laver (1990)

To begin with, party system fragmentation leads to an increase in (frequent) cabinet terminations. An additional variable that can explain government stability is the polarisation in the legislature, particularly concerning opposition parties; in legislatures

in which the support for extreme opposition parties, terminations are more frequent¹⁶. Finally, crucial factors underpinning government stability are those related to the formation stage. Specifically, the number of formation attempts, indicating the complexity of the bargaining environment (De Winter and Dumont 2008), signals the difficulties of the prospective ruling coalition to peacefully cooperate for effective governance. Therefore, the interpretation provided by King and colleagues (1990) for this finding is that the more formation attempts, the more frequent terminations. All in all, the substantive results of King, Alt, Burns and Laver (1990) pointed out that the complexity of the bargaining environment plays a major role in explaining the length of time a cabinet survives. This finding clarifies Browne, Frensdreis, and Gleiber's (1986) findings as well, arguing that Belgium, Finland, Israel, and Italy¹⁷ are systems with very unstable governments, and such governments act in a complex environment and fragmented party system. Therefore, they are particularly sensitive to the impact of critical events. This is not the case of less daedal political systems, i.e. with low levels of fragmentation and polarisation, which seem to have higher protection from exogenous shocks.

Despite being a tiebreaker for the outcome of the survival debates, the unified approach mainly clarified the methodological side of the discussion, leaving behind pressing outstanding theoretical matters (Laver 2003). In one relevant instance, at the dawn of the new century, scholars of executive politics began to address the challenge of linking the different stages of a cabinet's life in order to provide a comprehensive approach and theory to the enquiry of coalition governments and, albeit to a lesser extent, of government stability. This novel encompassing approach was called the 'coalition life cycle', which will be described in the next paragraph.

1.5 The coalition life cycle approach

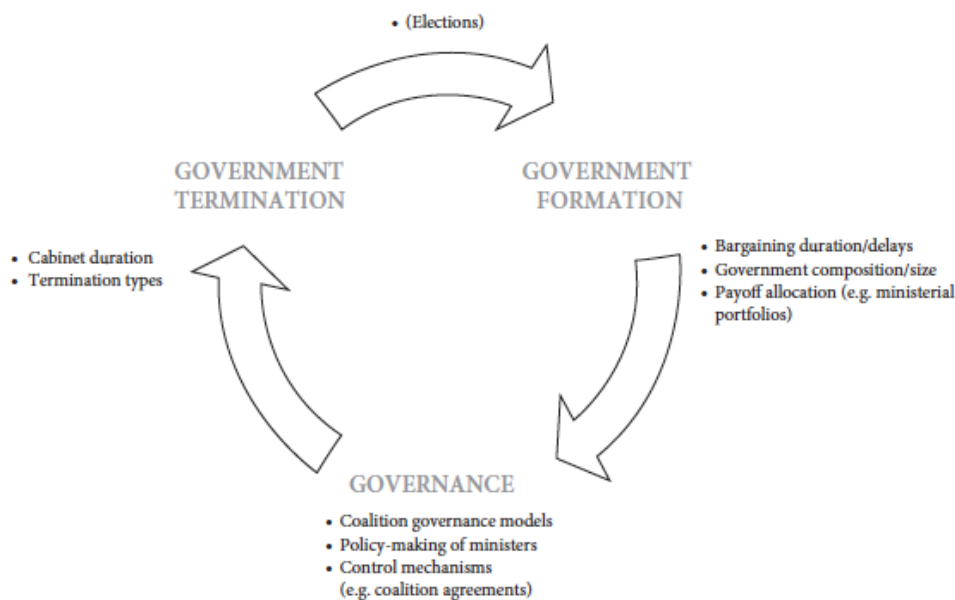
For many years, the different stages of a coalition government's life, i.e. the so-called 'making' and 'breaking' of governments, remained separate research fields, adopting heterogeneous theoretical and methodological approaches. Such a self-contained outlook

¹⁶ The role of party system polarisation and particularly the emphasis on the impact of extreme parties in legislature began centre-stage in coalitions' scholars since Sartori's classic *Parties and Party Systems*, published in 1976.

¹⁷ The only four countries out of a sample of 12 that provided empirical evidence of critical events explanations of government stability in Browne and colleagues' enquiry (1986).

inhibited the establishment of an encompassing framework for analysing the multiple steps characterising single-party and coalition governments' time in office. The first endeavour to provide a dynamic coalition politics perspective was made in Strøm, Müller, and Bergman's (2008) *Cabinets and Coalition Bargaining: The Democratic Life Cycle in Western Europe*. The book's grounding assumption is that what happens at the formation stage of a government's life shapes what happens during the governments' tenure, which in turn influences its durability (Strøm, Müller, and Bergman 2008; but see also Bergman, Bäck, and Hellström 2021).

Figure 1 - The life cycle of coalition governments



Source: Bergman, Bäck, and Hellström (2021)

Figure 1 displays the updated version of the coalition life cycle as provided by Bergman, Bäck, and Hellström (2021). The original description of this framework and of the governments' steps was presented by Strøm, Müller, and Bergman (2008). In their ground-breaking contribution, Strøm and colleagues (2008) focused on three main phases: government formation, governance, and government termination, with elections marking conclusion and beginning of the life cycle based on the specific step in which the coalition is situated. Such a conceptualisation is thus organised 'clockwise'; through elections, political parties receive their endowment of parliamentary seats and hence their bargaining power (Müller, Bergman, and Strøm 2008: 9). While the mechanisms

underpinning the electoral process in Western Europe are quite clear, the ensuing government formation is far less intelligible. Indeed, countries across Europe and beyond present sensible variation when it comes to government formation and bargaining procedures. On the one hand, political systems such as Greece, Malta, Portugal, Spain, and the United Kingdom are less likely to experience coalition governments, as they present a considerable share of single-party *majority* governments. For this reason, the outcome derived from the government formation process is straightforward. In all likelihood, the government will be formed by a single party holding the majority of parliamentary seats, and no particular negotiations among the parties are needed. On the other hand, countries such as Belgium, Israel, Italy, and the Netherlands have never been ruled by single-party majority governments. In such cases, bargaining among potential coalition partners is a crucial phase in the government's life, influencing its tenure in office. According to Müller, Strøm, and Bergman (2008: 9), 'each stage [of the life cycle] is more complex under government coalitions than under single-party majority government'.

Moreover, while scholars have reached substantial consensus over the meaning of government formation and, to a lesser extent, of government termination, the concept of governance and the processes characterising this stage remain more ambiguous. Müller, Strøm, and Bergman (2008) interpreted this phase as both the practice of governing and the stage in the life cycle of governments dedicated to policy design and implementation. However, this conceptual clarification appears ineffective in explicitly indicating the various processes characterising this step, as it seems to limit the perspective on the traditional *policy* life cycle.

Recently, Bergman, Bäck, and Hellström (2021) properly addressed this issue by elucidating the sub-steps of governance, which has been considerably overlooked by the coalition governments research. Assessing the fundamental question of 'how do coalitions govern?', Bergman, Bäck, and Hellström (2021) described several possible types of governance. The first is represented by the 'ministerial government model', indicating that ministers have complete control and autonomy over management of public policies in their ministries or departments (Laver and Shepsle 1996). The second is the so-called 'Prime Minister model', which suggests that governmental plans are extensively in the hands of the Prime Minister. Furthermore, a third model is that of individual parties carrying out several negotiations and monitoring their governmental actions and coalition behaviour, following the classic 'veto players model' (Tsebelis 2002), which posits that

each ruling party has the power to oppose policy initiatives proposed by other coalition actors. Finally, the last model delineated by Bergman, Bäck, and Hellström (2021) refers to the theoretical model in which political parties have the dual incentive to promote their own agenda and also to monitor and shadow what other political parties are pursuing. This model is known as the ‘coalition compromise model’, in which parties strive to constrain ministers from other parties by adopting various coalition governance mechanisms (Martin and Vanberg 2014).

Undoubtedly, the first stage of the coalition life cycle has been (and still is) the main focus of coalition studies investigations. Scholars have particularly elaborated on two main research questions. First, who gets in government, both concerning political parties and personnel (Laver and Schofield 1990). Second, what type of government is formed, whether minority or majority, oversized or undersized, minimal winning coalitions, and single-party majority cabinets. As previously mentioned, several contributions aimed to test the game-theoretic assumptions of early works (Gamson 1961; Riker 1962), while subsequent efforts were dedicated to explaining the establishment of minority and surplus governments (in particular Strøm 1990 regarding minority governments; see Mitchell and Nyblade 2008 for insights on oversized coalitions).

As mentioned above, additional questions have prompted the interest of coalition government scholars, particularly regarding parties’ payoffs during negotiations. In this regard, a considerable body of literature has investigated the allocation of cabinet portfolios (Warwick and Druckman 2005; Verzichelli 2008), drawing upon Gamson’s theories (1961). In recent years, this flourishing research field has been further developed by increasingly examining bargaining and negotiation processes, principally focusing on the variation in terms of duration (Golder 2010; Ecker and Meyer 2017). National variation in government formation duration in Europe is considerable. For instance, since 1946, Belgium has recorded an average duration of 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 (Improta 2022).

Finally, the last phase of the coalition life cycle concerns the ‘death’ of governments. As previously reported, before being included in the life cycle, this research field moved from early contributions adopting game-theoretic approaches to competing explanations of government stability, differentiating between attributes-related versus events-related mechanisms. This stage is the focus of this thesis.

It is worth emphasising the innovation brought by the coalition life cycle approach, particularly when it comes to identifying the explanatory factors of what they label as government survival. Interestingly, Strøm, Müller, and Bergman's (2008) book includes two distinct chapters studying both cabinet termination (Damgaard 2008) and cabinet survival (Saalfeld 2008). In order to examine these two phenomena, the authors use and test the same clusters of independent variables: structure, preferences, institutions, bargaining, and critical events. Such clusters contain approximately seven indicators each, which are employed for explaining a wide range of additional *explananda*, such as government formation (De Winter and Dumont 2008), cabinet governance (Müller and Strøm 2008), and inter-party conflicts (Andeweg and Timmermans 2008). The reason underpinning this research strategy lies in the assumption that the outcomes of coalition politics can be explained by a fixed set of *explanans* that are strictly related to each other.

After the publication of *Cabinets and Coalition Bargaining*, delineating the coalition life cycle approach (Strøm, Müller, and Bergman 2008) and providing fresh insights on the dynamics of government *termination* and *survival* (Damgaard 2008; Saalfeld 2008), research on government stability suffered from a lull; no significant comprehensive contribution emerged in the 2009–2020 period. However, a (very) recent work (Bergman, Bäck, and Hellström 2021) aimed to fill this lacuna by updating the coalition life cycle, yet without further elaborating on the explanatory factors of government stability. One of the most useful insights emerging from Bergman, Bäck, and Hellström's contribution (2021) is the renewed focus on party system change in relation to government survival. Specifically, they argue that the third stage of the coalition life cycle may be influenced by recent disruptive changes in European party systems, e.g. the rise of right-wing populist parties, the rise of new policy dimensions, increased polarisation, and increased fragmentation. As will be shown, the objective of this thesis also includes verifying the potential impact of such novel factors, as Bergman and colleagues (2021) did not test them.

Finally, the interconnectedness of the different stages of the democratic life cycle has been further reassessed in recent studies (Pedrazzani and Zucchini 2023), contributing to shed light on the ruling parties' ability to participate in novel cabinets after having experienced government termination. Such scientific advancements rekindle the discussion over relevant government formation and duration theories. Importantly, in their groundbreaking work, Diermeier and Merlo (2000) assumed that, at the formation phase, negotiators can decide attributes like the type of government, as well as anticipate

the potential duration (i.e., durability) of the government. From a coalition life cycle perspective, the contribution by Diermeier and Merlo (2000) is crucial to justify why the government's different life stages should be comprehensively examined.

1.6 The way forward: Anchoring points and open issues

Despite the abundance of scholarly efforts carried out so far, government stability still requires deeper investigation. The present work aims to provide a fresh look into such topic, by taking into account the established findings and suggestions of the literature and, at the same time, addressing outstanding theoretical and methodological issues.

Echoing Laver (2003), the literature has effectively provided a set of explanatory factors that were found to reliably matter when it comes to both government actual duration and the different types of government termination. Such factors regard, *inter alia*, the type of cabinet, party system fragmentation and polarisation. Methodologically, scholars interested in studying government termination strongly recommended to perform event history modelling (King, Alt, Burns, and Laver 1990). However, there are still several theoretical and methodological unsatisfied issues.

To begin with, scholars of government stability are now less interested in making sense of the distinction between duration and durability, as they largely focus on the latter concept in their investigations (Fischer, Dowding, and Dumont 2012). Government duration and government durability are two concepts which should be investigated jointly, yet according to distinct research questions. As for the former, the scholarly endeavours requires focusing on the factors boosting or hindering government duration. Regarding the latter, the attention should be shifted towards the causes of different cabinet terminations. This is crucial, as government duration is an empirical referent, while government durability is a theoretical term (Fischer, Dowding, and Dumont 2012). The two concepts are, therefore, close and yet different; they explain separate phenomena. In this respect, Laver (2003: 24) properly epitomised the meaning of durability by arguing that 'the healthiest person in the world can be hit by a bus tomorrow, while someone is a total physical wreck can limp on to a ripe old age'. However, Laver (2003: 24) also claimed that government durability should prompt greater interest than duration, as the latter is devoted to the analysis of past governments' duration; conversely, durability allows formulating generalizations on present and future governments.

In this thesis, I follow Laver's conclusion. As recognized by Laver's himself (2003: 24), durability is informative of 'present and future governments' likelihood to last'. Along these lines, studying durability means answering the 'what if?' question, allowing the researcher to make statements such as 'Government X would have lasted much longer if [...]' and 'Government Y has very little chance of running a full term' (Laver 2003: 24).

However, the main reason why the literature has focussed on durability rather than actual duration has to do with methodological issues¹⁸. Standard methods indeed fail to properly measure duration. First, logistic regression analyses are unable to deal with the problem of the time- and state-dependency, that is, the problem of time-varying covariates – sequence of changes and events that might affect government survival. Second, linear regression modelling will likely return inappropriate predictions as it fails to properly treat units that have not yet experienced an event, i.e. censored event times (Singer and Willet 2003).

Another relevant issue left unsolved in the literature is represented by the definition of when a cabinet is born and when it terminates. Since Blondel's criteria (1968), many attempts have been made to provide univocal criteria, which are much needed in order to reliably test the hypotheses in a wider range of studies utilising different datasets (see for instance Lijphart 1984). Nonetheless, recent contributions have emphasised that measures of government stability inflates instability (Shomer, Rasch, and Akirav 2022), particularly when it comes to considering changes in governments' partisan composition. By refining the standard definition, Shomer and colleagues (2022) demonstrated that using more precise definitions of government longevity, i.e. that do not equate any changes in governments' partisan composition as a sign of instability, yield important ramifications for the rank-order of countries' governments instability (Shomer, Rasch, and Akirav 2022). Such a novel specification is much needed, as it clarifies how to handle an outstanding issue which contributed to create a lack of consensus among scholars, failing to provide an encompassing theory of government stability. Following this recent contribution, this thesis adopts Shomer and colleagues' (2022) perspective, suggesting not considering *all* party composition changes as an indication of a government's birth or death.

¹⁸ Further discussion on such issues are discussed in the methodological chapter of the thesis.

Establishing the event marking a government’s start and termination is far from being an irrelevant task. In this regard, Lijphart (1984) underlined that government stability literature’s findings were divergent due to the presence of several distinct criteria proposed by Blondel (1986), Taylor and Herman (1971), Hurwitz (1971), De Swaan (1973), Taylor and Laver (1973), Dodd (1976), Sanders and Herman (1977), and Warwick (1979). Such a complexity was also exacerbated by the fact that only one criterion was common in all criteria. However, the shared criterion is precisely the one criticised by Shomer and colleagues (2022), i.e. the change in the party composition of the cabinet (Lijphart 1984: 266).

Table 3 - Criteria for establishing a government’s birth and termination

Criteria for establishing a government's birth and termination								
Change in:	Blondel	Taylor and Herman	Hurwitz	De Swaan	Taylor and Laver	Dodd	Sanders and Herman	Warwick
1. Parties composing the cabinet	x	x	x	x	x	x	x	x
2. Parties externally supporting the cabinet	x	x		x				x
3. Coalition status of the cabinet						x		
4. Prime ministership for political reasons	x	x	x		x		x	x
5. Prime ministership due to illness or death	x	x	x				x	
Parliamentary election			x	x	x		x	x

Source: author’s elaboration on Lijphart (1984)

In Shomer and colleagues’ (2022) elaboration, three main criteria are considered. First, the start of a new cabinet is marked by the occurrence of parliamentary elections. Second, a new cabinet starts when there is a change in the Prime Minister, for both political and personal reasons. Finally, and crucially, a new cabinet is recorded when *some* changes in partisan composition occur. However, such changes must respect strict sub-criteria. For instance, if a withdrawal of a coalition partner leaves the coalition majority status unchanged, stability remains largely unaffected. Thus, if a surplus coalition witnesses a withdrawal of a partner, which leaves its majority status as a surplus coalition, instability is unbothered. (Shomer, Rasch, and Akirav 2022). Moreover, if the departure of a partner alters the coalitions’ majority status from a surplus to either a minimal winning coalition or a minority coalition, stability is hampered (Shomer, Rasch, and Akirav 2022). By the same token, if the exit of a coalition partner changes the coalition’s majority status from a minimal winning coalition to a minority government, stability is altered (Shomer, Rasch, and Akirav 2022).

Finally, while the thesis theoretically draws on the coalition life cycle framework (Strøm, Müller, and Bergman 2008; Bergman, Bäck, and Hellström 2021), it proposes a novel explanatory framework considering factors related to three different clusters. Concerning government stability, it substantially aligns with past contributions for what concerns the methodological strategy¹⁹. Therefore, this thesis embarks on the most encompassing and up-to-date theoretical framework for the enquiry of executive politics.

1.7 Hypotheses

The core research question in government stability studies is the governments' probability of termination at any time – i.e. the hazard rate (Müller, Bergman, and Strøm 2008). This research assumed that the main explanatory factors of government termination were to be found either in the attributes of the cabinet, such as the type of cabinet, or in the political environment cabinets are confronted with, such as party system characteristics, or in the exogenous shocks randomly occurring during governance (Müller, Bergman, and Strøm 2008).

Using an extensive empirical design, this thesis provides an innovative theoretical approach to the study of government stability, following one of the four main traditions of coalition government research²⁰. Focusing on more than 700 governments and 400 elections in 21 democracies from 1945 to 2021²¹, this research tests the established findings of the literature, as well as novel disruptive features of democratic political systems. In doing so, it provides a comprehensive theoretical understanding of the determinants of government stability grounded in a large set of observations. Importantly, this thesis reinvigorates previous research on government stability by expanding the temporal framework of the analysis and including new explanatory factors. Moreover, it

¹⁹ All choices will be further discussed and explained in the methodological section of the thesis.

²⁰ According to Müller, Bergman, and Strøm (2008: 34), four main methodological and theoretical traditions can be detected in coalition government research. First, coalition governments have been studied with intensive empirical designs and complete theoretical approaches (Andeweg, De Winter, and Dumont 2010; Müller and Strøm 1999). Second, complete theoretical approaches have been accompanied by extensive empirical designs (Browne 1971; Martin and Stevenson 2001; Taylor and Laver 1973; Warwick 1994). Third, extensive empirical designs have been employed with more parsimonious theoretical approaches (Laver and Shepsle 1994; Thies 2001; Timmermans 2006). Lastly, other scholars have investigated coalition governments' life cycles with extensive empirical designs and parsimonious theoretical approaches (De Swaan 1973; Laver and Budge 1992; Laver and Shepsle 1996; Strøm 1990).

²¹ The dataset's features are fully presented in the design section of the dissertation.

covers unexplored countries and it provides innovative measurements of most explanatory factors.

Research on government stability generally investigates this issue by considering six different clusters of explanatory factors (see, for instance, Saalfeld 2008). More parsimoniously, this contribution narrows the scope, focusing on three main clusters: (1) government attributes, (2) institutions and rules and (3) context.

1.7.1 Government attributes

The first block of variables concerns the structural attributes of the government. Following Bergman, Gerber, Kastner and Nyblade (2008), this cluster includes both exogenously and endogenously determined structures. Specifically, this thesis investigates dynamic factors that are ‘the direct result of bargained outcomes in prior stages of the cabinet governance cycle, or are at least strongly influenced by earlier experiences of cabinet governance’ (Bergman, Gerber, Kastner, and Nyblade 2008: 95). In this vein, rather than focusing only on static structural attributes, the thesis aims to grasp the structures which are still manageable by political actors, so as to be informative for our understanding of political behaviour when it comes to governing responsibility.

In particular, the analysis includes the structural attributes of governments that have actually formed (Bergman, Gerber, Kastner, and Nyblade 2008: 97). Therefore, the thesis is devoted to studying the impact of cabinet parties’ features in terms of size and number – namely, the strength of ruling parties based on their parliamentary support and the number of ruling parties involved in the cabinet – to accurately grasp the effects of cabinet fragmentation and coalition type. In addition, the policy preferences of cabinet parties are taken into account. Besides examining coalition types, it is worth considering the ideological positions of coalition partners in the left–right scheme.

Alongside the presented classic explanatory factors, relevant transformations occurring in the governmental arena of Western democracies must be carefully considered. To this end, this thesis examines novel government attributes. Such novel attributes refer to the emergence of unprecedented ruling configurations deriving from the decline in the partyness of government in the last few decades (Katz 1987). In fact, changes in government personnel are increasingly prompting the appointment of

technocratic figures in Western cabinets (Emanuele, Improta, Marino, and Verzichelli 2022). Additionally, the outbreak of new parties in Western parliamentary arenas (Emanuele and Sikk 2021) paved the way for such political formations to enter the government, forming unprecedented cabinet coalitions. As recent political phenomena, such transformations have not yet been thoroughly investigated.

The first explanatory factor of government stability tested was the type of cabinet. Just as medical patients have their state of health influencing their life expectancy, governments have specific settings that may positively or negatively impact their chances of survival. Among such settings, the type of cabinet plays a critical role. As previously mentioned, the literature widely stresses the relevance of ruling configurations in boosting or hindering government stability. In particular, key distinctions need to be made regarding the number of parties involved in the cabinet, the type of coalition in terms of seat share controlled and the rationality of governing solutions when it comes to allocating ministerial positions. All of these concerns are of primary importance for potential coalition partners seeking to maximise both offices and policies during bargaining.

To effectively grasp the complexity displayed in the ruling configurations of the 21 democracies investigated, a categorical variable differentiating among multiple cabinet types was created. Specifically, each cabinet has been assigned to one of the following categories: multi-party minority, single-party minority, oversized coalitions, minimal winning coalitions and single-party majority governments. To begin with, minority governments are considered the most fragile cabinet type, as the lack of a solid parliamentary majority implies that ruling parties must bargain with parliamentary parties to obtain (external) support to fruitfully conduct their policy plans. Furthermore, some authors have interpreted such cabinets as symptoms of political instability and crisis (Friesenhahn 1971; von Beyme 1970). However, they are quite frequent in Scandinavian countries, particularly Norway, Denmark and Sweden, where the negative parliamentarism system (Bergman 1993; Rasch 2011) regulating the formation and investiture rules does not require the cabinet to obtain a majority in the legislature to seize power. Recently, minority governments have been spreading even outside Nordic countries. For instance, minority governments have been formed in Spain (the second Mariano Rajoy cabinet) and Portugal (the cabinet led by António Costa and externally supported by left parties). While the absence of a stable parliamentary majority dramatically undermines minority cabinets' autonomy in policymaking, some scholars,

in contrast to the conventional wisdom, have hypothesised that minority governments should be deemed rational cabinet solutions, as they might be considered a rational option when government participation is likely to be a liability in future elections (Strøm 1984). This conclusion, however, seems ineffective in explaining why minority cabinets should not be considered as unstable solutions. In fact, when government participation is deemed risky by parties, this should signal parties' unwillingness to take on the responsibility during turbulent times. Along these lines, *I expect multi-party and single-party minority governments to negatively influence government stability, thus presenting a higher associated risk of termination (H1a)*.

Turning the attention to oversized (or surplus) coalitions, the first interpretation of their impact on government stability dates back to Dodd (1976) who maintained that 'minimal winning will be quite durable. Oversized and undersized [i.e., minority] cabinets will be more transient' (Dodd 1976: 1094). As highlighted by Grofman (1989), Dodd made several crucial propositions; *inter alia*, he claimed that oversized cabinets tend to form in multi-party systems that are fractionalised (unstable) and non-conflictual. Conversely, Lijphart (1999) famously argued that oversized coalitions are a key feature of executive power sharing in consensus models of democracy and should be understood as a sign of peaceful decision-making in the wider framework of a 'kinder and gentler democracy' (Lijphart 1999: 274). Nevertheless, oversized coalitions may exacerbate intracoalitional conflicts, thus leading to increased cabinet turnover and decreased political and government stability. Differently from Dodd (1976), however, minimal winning coalitions should not be interpreted as more stable than oversized coalitions for two main reasons. First, during the past few decades, all the components of minimal winning coalitions – namely, 'minimal winning', 'winning', and 'coalition' – have not been held in practice in Western democracies. Investigating 17 West European countries, Mitchell and Nyblade (2008) found that oversized coalitions have been significantly more frequent than expected by established theories (in particular, Riker 1962; Dodd 1976) and that minimal winning coalitions account for 30.5% of the governments formed in their sample. Such findings suggest that, when attempting to form a coalition, parties are not always concerned about Riker's size criterion. Second, minimal winning coalitions provide 'necessary' parties with more room for manoeuvre, as they can maximise their blackmail potential (Sartori 1976) influencing the decision-making by threatening senior coalition partners of exiting the government, thus leading to the cabinet's collapse. In this constrained situation, even minor disputes on specific policies may cause early

termination of the coalition alliance. All things considered, ***I hypothesise that oversized coalitions and minimal winning coalitions are both detrimental to government stability, thus presenting a higher associated risk of termination (H1b).***

Finally, single-party majority governments are typically the more likely outcome of government formation processes in Westminster democracies (Lijphart 1999). Countries such as Malta, the United Kingdom, but also pre-2019 Spain have experienced a large number of single-party majority governments during their democratic lives. As the executive power is fully concentrated in the responsibility of a single party that obtained the majority in the legislature, policymaking might be deemed smoother than that of all alternative cabinet types. However, conflicts can still break out from party factions. This was a frequent cause of termination in 1948–1992 Italy, when the pivotal political formation of that time – i.e. Christian Democracy (DC) – had to play havoc with its several factions (Mershon 2001; Improta 2022). Nonetheless, compared to different cabinet types, single-party majority cabinets should still be regarded as more stable, as coalition governments will typically face the issue of factions in addition to the issue of inter-party dynamics. In this vein, ***I expect single-party majority cabinets to positively influence government stability, thus presenting a lower associated risk of termination (H1c).***

After having discussed a largely employed explanatory factor, I examine the impact of two novel *explanans*: the share of technocratic positions and government innovation. Firstly, the implications for government stability potentially resulting from the increased cabinet involvement of technocratic personnel are tested. For this, a continuous variable indicating the weight of technocracy in government has been collected. As will be shown in more detail in the methodological section of the thesis, such a variable allows the detection of technocratic power in a cabinet in terms of ministerial seats controlled. In addition, allows the testing of the impact of technocrats also in ‘partisan’ governments.

Studying this phenomenon in relation to government stability is crucial, as technocrats have often been appointed in many West European democracies, where their appointments have been key to neutralising politically-sensitive positions within coalition governments, or even to coping with the complexities of some specific policy domains (Blondel 1991; Emanuele, Improta, Marino, and Verzichelli 2022). However, the recourse of ministers with no political affiliation has been traditionally infrequent for a long time, as having a partisan background has been a crucial prerequisite for reaching European cabinets’ offices (Costa Pinto, Cotta, and Tavares de Almeida 2018; Emanuele,

Improta, Marino, and Verzichelli 2022). Over the past few decades, the party-based nature of European cabinets has wavered, and technocratic ministers' government participation has become more common both in quantitative terms within the ruling class and in qualitative terms in the sphere of government (Andeweg 2000; Mair 2008). Technocracy in government prompted deep transformations in Western executive politics, particularly regarding policymaking style (Bertsou and Caramani 2020), social features of political elites (Costa Pinto, Cotta, and Tavares de Almeida 2018) and representation patterns in relation to the party government model and implications for democracy (McDonnell and Valbruzzi 2014; Pastorella 2016; Caramani 2017; Mair 2013; Chiru and Enyedi 2022).

The growing body of literature investigating technocratic transformations of Western cabinets indicates that technocratic ministers are appointed to deal with economic and financial crises (Alexiadou and Gunaydin 2019; Semenova 2020; Alexiadou, Spaniel, and Gunaydin 2021) and citizens' distrust (Brunclík and Parížek 2019). Other studies have emphasised the role of institutional settings, arguing that in presidential or semi-presidential regimes, where the directly elected president enjoys autonomous political legitimacy and holds substantive powers in government formation, non-partisan ministers' selection is enhanced (Amorim Neto and Strøm 2006). Finally, the recourse to technocracy might be considered a party strategy to dilute governing responsibility in electorally turbulent times, particularly in high volatility contexts (Emanuele, Improta, Marino, and Verzichelli 2022) and during economic recessions (Alexiadou and Gunaydin 2019; Wratil and Pastorella 2018).

Considering these conclusions, the involvement of technocrats in government can be interpreted as a strategy aimed at alleviating the burden of governance in turbulent times. However, the citizenship might deem non-partisan figures less legitimate in decision-making than they do partisan members (Caramani 2017). Therefore, cabinets with a higher share of technocratic ministers might be more vulnerable than 'normal' cabinets, as they are appointed to manage electoral and economic turmoil by implementing (often unpopular) reforms²² to be responsible towards supranational institutions, thus losing on the responsiveness side of representative governmental action²³ (Mair 2009; 2013). In

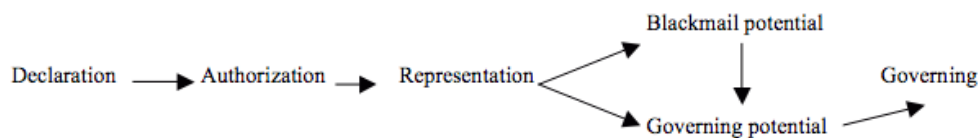
²² See, for instance, the austerity policy packages implemented in Italy (Mario Monti's cabinet) and Greece (Lucas Papademos' cabinet) or, more recently, Mario Draghi's measures to contain the spread of Covid-19 in Italy.

²³ The responsibility–responsiveness dilemma (Mair 2009; Mair 2013) is crucial when it comes to technocratic appointments (see on this point: Emanuele, Improta, Marino, and Verzichelli 2022).

addition, after having appointed technocratic ministers during the peak of the turmoil, parties and their leaders may wish to reclaim executive centrality and therefore have incentives to terminate the cabinet by strategically calling early elections, similar to the mechanism of strategic election timing proposed by Lupia and Strøm (1995). All things considered, *I expect technocratic share to negatively influence government stability, thus presenting a higher associated risk of termination (H1d).*

A second novel factor is government innovation. Specifically, the focus is devoted to the impact of new parties in government. To this end, a continuous variable indicating the share of new parties in government in terms of ministerial seats controlled was collected. Extensive research has been conducted to test new parties' impact (e.g. Deschouwer 2008; Lago and Martínez 2011; Sikk 2012; Emanuele and Sikk 2021), highlighting in particular their role in reshaping traditional patterns of Western party systems.

Figure 2 - The life cycle of parties



Source: Deschouwer (2008)

Considering the life cycle of political parties in Figure 2, for a new party, deciding to cross the threshold of government is a ‘hard decision’ (Müller and Strøm 1999), as it means that a party has added the seeking of office to its mix of strategic goals (Harmel and Janda 1994). In crossing the government threshold, the new party is ‘taking the risk of being blamed at the polls for what goes wrong, but hopes to take advantage of the visibility that comes with being in power. It is taking the risk of being challenged by its militants for having accepted compromises, but hopes that being in power is a more effective way to influence policy’ (Deschouwer 2008: 4). Entering government is a new step in the life of new parties, but newly governing parties can become accustomed to it. Specifically, ‘once they have been in power and have experienced the consequences of

it, they can decide to keep the office-seeking as one of their major goals. The second or the third time in government will not be the same as the very first time. Being in government will always be different from being in opposition [...] but the first time is special' (Deschouwer 2008: 6). When investigating the relationship between new parties' government participation and government stability, paying attention to the life cycle of parties and the incentives deriving from first cabinet experiences is fundamental. Notably, parties that do not have past government experience want to maximise their time in office. On the one hand, they should be aware that by moving from opposition to government, they risk losing voters as a consequence of the transition through the blackmail potential phase to the government. If a party has built its place in the party system as a protest party, an anti-establishment party, or a principled opposition party, then its joining the government is nothing less than a deep transformation (Deschouwer 2008). Therefore, new parties seek to increase their longevity in government as much as possible, conscious that the first government experience could also be the last. On the other hand, as new parties usually form government with mainstream partners, the latter may exploit such ruling configuration, striving to 'normalise' or 'institutionalise' the novel coalition partner, turning it in a less appealing option for (protest) voting in the next elections. Along these lines, *I hypothesise that government innovation positively influences government stability, thus presenting a lower associated risk of termination (H1e).*

1.7.2 Institutions and rules

The second block of variables considered in the analysis focuses on institutions and institutional rules. In particular, I aim to examine the impact of two factors: the constructive vote of no-confidence and coalition agreements.

In parliamentary democracies, voting a motion of no-confidence against the executive allows the legislature to ensure that public policies implemented by cabinets are in line with the preferences of the parliamentary majority supporting the cabinet (Hazan and Rasch 2022). When governmental action becomes unaccommodating, the legislature can vote the government out of office by ending the confidence relationship between the two branches (Huber 1996), leading to cabinet termination (Sieberer 2015).

The constructive variant of the no-confidence procedures plays a relevant role in this relationship. This institutional tool is a key element of the 'rationalisation of

parliamentarism’ (Huber 1996; Cheibub and Rasch 2022). Countries that have adopted the constructive motion have primarily sought to increase their governments’ longevity in office. Indeed, the constructive vote of no-confidence should boost government stability (Rubabshi-Shitrit and Hasson 2022; Improta 2022) by making the no-confidence process much tougher and restrictive (Lento and Hazan 2022). Specifically, in countries adopting such an instrument²⁴, the legislature can vote the government out of office only provided that the legislature supports a vote of confidence for a new government ready to take over promptly. The increased restrictiveness of the constructive vote compared to motions of no-confidence requiring simple majority in parliament may limit the room for government crises ‘in the dark’, allowing only government crises out in the open, thus increasing both government and opposition parties’ accountability during such delicate phases.

The variable collected for testing the impact of different types of vote of no-confidence on government stability is based on Lento and Hazan’s (2022) framework for analysis. As shown by Lento and Hazan (2022), in order to analyse the vote of no-confidence, we need to distinguish among three main criteria. The first is the minimum threshold required for proposing a no-confidence vote. The second is the quorum to be reached for the voting procedure’s validity. Finally, there are the temporal limits for proposing the no-confidence vote. In this vein, Lento and Hazan (2022) distinguish between three types of no-confidence vote according to the degree of permissiveness and restrictiveness.

Table 4 - The vote of no-confidence. A framework for analysis

Stage	Indicator	Permissiveness	Restrictiveness
Voting	Majority	Simple	Absolute
Voting	No confidence	Regular	Constructive
Voting	Vote	Secret	Open

Source: Adapted from Lento and Hazan (2022)

²⁴ Countries in the thesis’ sample that have adopted the constructive vote of no-confidence are the following: Germany (from 1949), Belgium (from 1992), Spain (from 1978) and Israel (from 2001). Additional countries, not included in the dataset, utilising this mechanism are Albania, Lesotho, Slovenia, Poland and Hungary. Motivations concerning the need for more stable governments were the basis for the inclusion of constructive procedures in most of the countries (Walther and Hellström 2022).

The more permissive motion is constituted by the regular plurality motion; then, at an intermediate level, the absolute majority motion. Finally, the most restrictive measure is the constructive vote of no-confidence (Hazan 2014; Lento and Hazan 2022). This restrictiveness is evident from two viewpoints. On the one hand, in parliamentary systems, reaching an absolute majority for removing the government from office is complex, as the latter can generally benefit from solid support in the legislature. Therefore, opposition parties willing to cause the cabinet's early dissolution need to obtain the support of ruling parties or some factions of the single party in the government. On the other hand, opposition parties and ruling parties interested in removing the government need to come to an agreement on the alternative cabinet. Such a 'constructive' condition greatly mitigates the risk of cabinet early termination, as it makes the bargaining environment more complex.

Recently, a growing body of literature investigated the relationship between the constructive vote of no-confidence and government stability (Damgaard 2008; Sieberer 2015; Rubabshi-Shitrit 2020; Rubabshi-Shitrit and Hasson 2022; Improta 2022). However, a first theoretical insight was derived from Lijphart's (2004) investigation on this mechanism in relation to democratic models and political stability. Specifically, according to Lijphart (2004), the adoption of the constructive vote of no-confidence is particularly beneficial in divided societies, as it would boost government stability, limiting the emergence of internal conflicts exacerbated by political instability²⁵.

To investigate the impact of the vote of no-confidence in relation to government stability, I collected a variable based on the permissiveness – restrictiveness line in the voting stage: regular plurality and constructive vote. Considering the discussed theoretical foundations, ***I expect the constructive vote of no-confidence to increase government stability, thus presenting a lower associated risk of termination (H2a).***

Another important institutional factor is the presence of a coalition agreement. All government coalitions are based on some initial agreement between the partners; in most cases, the coalition partners make an agreement that goes beyond the division of high office spoils (Müller and Strøm 2008). Coalition agreements are the outcome of an intense, protracted, and hard-nosed process defining the set of offices to be filled, the

²⁵ In this regard, however, it must be said that according to Lijphart (2004) the constructive vote of no-confidence should be adopted in countries where mechanisms of negative parliamentarism are absent, as in such systems this type of no-confidence motion would dramatically overbalance the powers in favour of the executive over the legislature.

perquisites to be distributed, the mechanisms of governance, and the public policies to be conducted (Müller and Strøm 2008: 159). Interestingly, De Winter, Timmermans, and Dumont (2000: 322) referred to coalition agreements as ‘the coalition’s equivalent of the bible’. Recent studies have underlined the positive impact coalition agreements exert on government stability (Krauss 2018). To account for this relevant factor, a variable indicating the presence of a written coalition agreement was collected. Specifically, the coalition agreements considered are pre-electoral, post-electoral, and those established during the parliamentary term and not immediately following elections. The data come from the European Representative Democracy Data Archive (ERDDA) dataset²⁶ (2021).

All in all, *I expect coalition agreements to increase government stability, thus presenting a lower associated risk of termination (H2b).*

1.7.3 Context

The third and last block of variables regards the context in which governments live. Since the first critical events approaches (Browne, Frensdreis and Gleiber 1984), contextual features have been widely deemed crucial vis-à-vis government stability. Scholars have particularly devoted attention to economic conditions (Warwick 1992; Pinto 2018), polarisation (Savage 2013; Bergmann, Bäck, and Saalfeld 2022) and fragmentation in the legislative arena (Enyedi 2006; Grotz and Weber 2012).

In this thesis, I analyse four types of contextual factors. First, I include variables concerning the electoral context, such as electoral volatility and electoral system. Second, variables of economic context are tested, such as public debt. Third, I verify the impact of features regarding the parliamentary environment, such as fragmentation and polarisation. Finally, contextual characteristics concerning the countries’ ties with supranational institutions (e.g. the European Union and the International Monetary Fund) are included. Some of these variables record whether a country is member of the European Union or has signed a memorandum with supranational actors such as the so-called Troika – i.e. the European Commission, the European Central Bank, and the International Monetary Fund.

Investigating contextual features in relation to government stability, previous research has found a destabilising role of poor economic conditions, in particular in terms of high

²⁶ December 2021 release.

job insecurity (Robertson 1983), high unemployment and low GDP rate (e.g. Warwick 1992). Moreover, high fragmentation and polarisation in the system (e.g. Bergmann, Bäck, and Saalfeld 2022) have been interpreted as damaging for governments' time in office. However, Western cabinets are facing recent disruptive challenges that need to be taken into account when dealing with the issue of government (in)stability. Therefore, I primarily focus on two factors which may greatly undermine the endurance of governments in Western democracies.

The first factor belongs to the economic context: public debt. In recent years, some countries, especially in Southern Europe, have been dramatically hit by the outbreak of the European sovereign debt crisis, creating high levels of electoral uncertainty (Bosco and Verney 2012). Consequently, the electoral environment became turbulent; in this environment, uncharted government types and frequent early elections found fertile ground, leading to an increased risk of government instability (Bosco and Verney 2016). According to Bernhard and Leblang (2016), the financial crisis reshaped the basic calculation of political support: voters were concerned about the effect of the crisis on their pocketbooks, especially in countries that were largely affected by it²⁷. The most relevant economic outcome of the financial crisis was the unprecedented increase in countries' public debts (Woo and Kumar 2015).

Alongside the economic implications, increased public debts made governments' life more complex, leading to high cabinet turnover and to the appointment of technocratic personnel both as prime ministers and ministers (Alexiadou and Gunaydin 2019). In fact, financial markets are becoming increasingly relevant in domestic and international politics, influencing the life of cabinets globally. Italy's and Greece's cabinet terminations in 2011 are a telling instance of such increased influence. In particular, the fourth Berlusconi cabinet greatly suffered from external pressures caused by the unrelenting economic meltdown. The cabinet's finance minister, Giulio Tremonti, who was deeply concerned about the financial situation of the country at the dawn of the 2011 economic crisis, suffered from pressures as well. The impact of the growing public debt in that occasion became apparent with the mounting tensions between Berlusconi and then-President of the Republic Giorgio Napolitano over the management of the crisis. After the collapse of the fourth Berlusconi cabinet, supranational institutions welcomed the appointment of the technocratic executive led by Mario Monti, deemed better

²⁷ The so-called *PIIGS*: Portugal, Ireland, Italy, Greece and Spain. However, the term is quite derogatory.

equipped to handle the turbulence emerging from the increased Btp-Bund spread in 2011 and to implement reforms and austerity measures to solve the crisis and calm the markets. In a similar vein, Lukas Papademos was sworn in as the new prime minister in Greece during the crisis, forming a technocratic executive with the explicit goal of limiting the negative consequences deriving from the unrestrainable growth of public debt. Therefore, when public debt is endangering the financial and political stability of the country, governments are confronted with two main issues. On the one hand, they need to be responsible towards external actors. Yet, at the same time, the need to remain responsive in relation to citizens' demands. In this environment, however, governments are at a crossroads: they can implement policies for fiscal consolidation to meet the responsibility requirement, or they can opt for an expansionary fiscal policy to preserve constituencies.

All things considered, *I hypothesise that public debt negatively influences government stability, thus presenting a higher associated risk of termination (H3a)*, as it challenges governments both domestically – i.e. responsiveness vis-à-vis citizens – and externally – i.e. responsibility towards external actors and supranational institutions – thus reactivating what Mair (2009) labelled the ‘responsibility vs responsiveness’ dilemma.

The second factor to be carefully considered is fragmentation in parliament. Using a quantitative approach to analyse the impact of fragmentation, I rely on the effective number of (parliamentary) parties index proposed by Laakso and Taagepera (1979), specifically focusing on the index on the effective number of parties in seats. In this index, each party's share of seats is taken as a decimal fraction and squared; I then sum these squared fractions and divide one by this sum. According to Taagepera (1999: 498), one of the strengths of this index is that it is ‘self-weighting’. Theoretically, fragmentation in parliament signals complexity of the environment, as more parties in the legislature implies that competition for government is higher and negotiations may be more conflictual. Traditionally, government stability has been negatively associated with the number of parties holding seats in the parliament (Taylor and Herman 1971). The destabilising effect of high fragmentation lies in the increased complexity and uncertainty brought by many parties in the legislature when it comes to bargaining (De Winter and Dumont 2008). Specifically, uncertainty and complexity may cause the establishment of ineffective and short-lived coalitions, which decide to rule together because there are no feasible alternatives yet the internal ideological divergences result in a blocking

governance. Therefore, *I hypothesise that fragmentation in parliament endangers government stability, thus presenting a higher associated risk of termination (H3b).*

Table 5 displays a summary of the thesis' hypotheses.

Table 5 - Summary of hypotheses

Variable	Category	Expected effect on stability
Minority governments	Government attributes	Negative (H1a)
Oversized and minimal winning	Government attributes	Negative (H1b)
Single-party majority governments	Government attributes	Positive (H1c)
Technocratic share	Government attributes	Negative (H1d)
Government innovation	Government attributes	Positive (H1e)
Constructive vote of no-confidence	Institutions and rules	Positive (H2a)
Coalition agreement	Institutions and rules	Positive (H2b)
Public debt	Context	Negative (H3a)
Fragmentation in parliament	Context	Negative (H3b)

Source: Author's elaboration.

1.7.4 Explanatory framework

Government stability is influenced by factors related to three main domains: government attributes, institutions and rules, and contextual features. However, these blocks should not be considered distinct and separate, as their factors are interconnected. From a dynamic perspective, it is believed that beyond what happens in the early stages of a government's life affecting the later stages, external (e.g. economic and electoral turbulence) and internal (e.g. uncertainty and complexity in the legislature, strategic considerations of opposition and ruling parties) conditions influence the ability of the cabinet to survive. Along these lines, in this thesis, I argue that governments collapse as a consequence of reasons related to two main domains: government vulnerability and actors' strategic considerations. Furthermore, a cabinet can survive if actors have

incentives to participate in the government and/or if the cabinet has useful resources limiting treacherous conflicts and its removal. All these elements in turn concern each of the three clusters of variables investigated and are caused by factors that are present in different domains, thus overcoming the boundaries of the belonging categories (government attributes, institutions and rules, and context).

Figure 3 - Explanatory framework



Source: Author's elaboration

Figure 3 shows the explanatory framework of the thesis. Differentiating between government vulnerability, strategic considerations, and resources, I argue that a government collapses when the economic environment (public debt) is turbulent and fragmentation in parliament increases the complexity of the bargaining environment. As for the impact of public debt, while I expect a more pronounced destabilising effect during the economic crisis of the past decade, public debt it is expected to function as a driver of destabilisation also in other periods, e.g. post-war times.

Moreover, strategic considerations may also lead to governments' collapse. Specifically, when government participation is deemed risky, parties may opt not to join the cabinet (minority situations) or may dilute responsibility through technocrats (technocratic share). On the other hand, when government participation is deemed profitable, as in the case of new parties joining the government, actors can choose to maximise their time in office by exploiting office-seeking and policy-seeking

considerations (Budge and Laver 1986). Finally, two crucial resources are key for providing the cabinet with higher chances of survival. First of all, the existence of ruling configurations limiting the room for internal conflicts, such as single-party majority cabinets, function as a relevant protection for the government. Secondly, institutional requirements may limit the possibility for opposition parties and other actors to remove the government from office, as in the case of the constructive vote of no-confidence, and the presence of institutions that limit conflicts within the ruling coalition, as in the case of coalition agreements.

All in all, what emerges from the explanatory framework is the interconnectedness of the three main clusters investigated, which should therefore not be considered as strictly separate domains.

1.8 Conclusion

In this first chapter, I have explored and examined the considerable research that has been carried out on government stability, starting from early contributions (Lowell 1896; Riker 1962; Dodd 1976) to the more updated coalition life cycle approach (Strøm, Müller, and Bergman 2008; Bergman, Bäck, and Hellström 2021). As I have observed, government stability is a broad concept. Contributions on this topic have examined the types of cabinet termination and the survival probability and, to a lesser extent, government actual duration. The topic has been at the core of a heated debate between structural attributes theorists and critical events theorists.

Such a debate was mainly centred on the best methodological approach to the analysis of government stability. On the one hand, Strøm (1998) argued that studying the impact of governmental structural attributes does not imply adopting a deterministic perspective, as this strategy is still able to capture stochastic elements. On the other hand, the critical events school (Browne, Frensdreis, and Gleiber 1998) maintained that governments collapse as a result of random events regardless of their structural attributes. Therefore, the structure of the government should not be considered as an appropriate feature for explaining government tenure. Despite the intensity of the debate, no significant advancement was elicited from it. Laver (2003) asserted that both positions were characterised by plausible arguments. However, neither the structural nor the critical events theorists took account of the concerns of the other. In addition, some scholars (e.g.

Saalfeld 2008) deemed the claims of critical event theorists as substantially groundless as critical events can still be (strategically) engineered by political actors both in government and opposition.

Undoubtedly, government stability is a widely studied topic. However, some theoretical and methodological issues still need to be addressed. Firstly, scholars are now less interested in making sense of the distinction between duration and durability. In this respect, Laver (2003) considered government durability as of greater interest than duration, as the latter is devoted to the analysis of past governments' duration. Another issue is the crucial understanding of when a government is formed and when it dies, as recently highlighted by Shomer, Rasch and Akirav (2022). Since Blondel's criteria (1968), many attempts have been made to provide univocal criteria. Recent endeavours have highlighted that measures of government stability inflates instability, particularly regarding the modifications in the partisan composition of governments.

In this first chapter, I focused on three main clusters to investigate government stability. The first concerns the structural attributes of the government. Following Bergman, Gerber, Kastner and Nyblade (2008), this cluster includes both exogenously and endogenously determined structures. In this fashion, rather than focusing only on static structural attributes, the thesis aims to grasp the structures which are still manageable by political actors, so as to be informative for our understanding of political behaviour concerning governing responsibility. The second cluster regards the institutional provisions and rules enacted in the political systems researched. The third and last cluster considers the impact of contextual features. As for the government attributes, I expect a negative effect of minority, oversized, and minimal winning governments. Conversely, single-party majority configurations should secure a higher stability compared to the other cabinet types. Moreover, the constructive vote of no-confidence and the presence of coalition agreements should reduce the risk of cabinet discretionary terminations, as they are commonly understood as effective conflict management instruments. Finally, I expect a negative effect of high public debt and high parliamentary fragmentation, as governments operate in such contexts might encounter increased difficulties.

The chapter presented the explanatory framework of the thesis. Considering government vulnerability, strategic considerations, and resources as the foundations of government collapse and/or survival, I argue that a government terminates when the economy is turbulent and fragmentation in parliament is high. Furthermore, the strategic

incentives of the actors of the ‘governmental game’ may also influence cabinets’ life. In particular, in cases in which the actors do not seek offices, government termination might be considered less profitable or even a risky affair. Conversely, when government involvement is deemed profitable, actors may opt for maximising their tenure. In the explanatory framework presented, resources play a critical role. I consider the presence of ruling configurations limiting conflicts, such as single-party majority governments, and institutional and ruling provisions stability-oriented, such as the constructive vote of no-confidence and coalition agreements, as crucial for government survival.

Following this review of the literature on different declinations of government stability and its presentation of the hypotheses and causal mechanisms underpinning the phenomenon under study, the next chapter elucidates the research design. In it, I present and describe the original multilevel dataset collected for this work and delineate the methodology adopted.

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Chapter 2

Research Design and Methodology

2.1 Introduction

This thesis adopts a comparative longitudinal approach. It studies 21 Western democracies from 1945 to 2021, on which an original multilevel dataset was manually collected. Theoretically, this thesis draws upon the coalition life cycle approach, positing that in democratic systems, governments are born and die after passing through different stages characterised by multiple steps beginning after elections. They form, govern, and terminate. Each step in the cycle is highly influenced by the previous ones, and, in turn, formation and governance are affected by the short or long endurance record of the previous government. Therefore, all steps are interrelated (Strøm, Müller, and Bergman 2008). Building on this fundamental consideration, I propose a novel explanatory framework in relation to government stability, accounting for specific government attributes, institutions and rules, and context. More generally, governments' chances of survival are based on their vulnerability, the involved actors' strategic considerations, and the resources at their disposal. Factors considered can produce effects at both the formation and governance stages of the life cycle.

To test this explanatory framework effectively, an extensive empirical design needs to be carried out. This chapter illustrates the research design and methodology adopted. First, in Section 2.2, the features of the original multilevel dataset are presented. Importantly, the multilevel structure of the dataset allows us to gauge legislature and country characteristics alongside those of the governmental arena. Section 2.3 delineates the methodological strategy and modelling adopted for this thesis. Specifically, considering the hierarchical data matrix at disposal, I perform Cox (1972) proportional hazards regression models with shared frailty to properly control for country specificities.

Then, Section 2.4 discusses the operationalisation of the analysis time variable – government duration and the failure variable – type of termination as well as the operationalisation of the main independent variables. Next, Section 2.5 illustrates the control variables included in the analysis. A concluding section follows.

2.2 Dataset

For this thesis, an original longitudinal multilevel dataset²⁸ has been manually collected. Its three different levels are country, legislature, and cabinet. A cabinet is the basic unit of analysis²⁹. Following Bergman, Gerber, Kastner and Nyblade (2008) and Shomer, Rasch and Akirav (2022), I counted a change of cabinet with any of the following circumstances: *a*) any change in the person of the *prime minister*, by which I mean the head of the cabinet, regardless of the specific title the cabinet might have (e.g. Chancellor in Austria and Germany, State Minister in Sweden); *b*) changes in the cabinet's party composition altering its status (e.g. minority/majority and/or oversized coalition/minimal winning coalition); and *c*) any general election, whether constitutionally mandated by the end of a term or precipitated by an early or extra election. I identify as the cabinet's 'start date' the date that the government was inaugurated by the head of state (e.g. the *giuramento* in Italy) and as the 'end date' the date of the general election, or the date of the formal resignation of the cabinet, 'whichever comes first' (Müller and Strøm 2000: 11–17).

Table 6 - Information gathered in the dataset (thesis' sample)

²⁸ The dataset and its codebook will be released along the publication of this work. The characteristics and the codebook are presented in the Annex of the thesis.

²⁹ The main sources of data are Casal Bértoa and Enyedi (2022) and, in case of missing data, Sonntag (2015). The electoral data come from Emanuele (2015).

Country	Time frame	N legislatures	N cabinets
Austria	1945-2021	23	33
Belgium	1946-2021	23	47
Cyprus	1970-2021	11	22
Denmark	1945-2021	28	39
Finland	1945-2021	21	61
France	1945-2021	20	75
Germany	1949-2021	20	23
Greece	1974-2021	18	28
Iceland	1942-2021	24	35
Ireland	1944-2021	22	29
Israel	1949-2021	23	35
Italy	1948-2021	18	66
Luxembourg	1945-2021	17	19
Malta	1947-2021	18	21
Netherlands	1946-2021	22	30
Norway	1945-2021	20	32
Portugal	1976-2021	15	23
Spain	1977-2021	15	16
Sweden	1944-2021	23	32
Switzerland	1943-2021	20	25
UK	1945-2021	20	29
Total		421	720

Source: Author's elaboration.

The sample includes 720 cabinets and 421 legislatures in 21 countries in a timeframe covering the first cabinets born after the end of the Second World War up to the last executives of 2021. While the end year is common for every country, the first data entries differ according to the countries' democratic installation. For this reason, the first cabinet recorded in the dataset was Thors I (Iceland, 1942), while data collection for the so-called 'late democratisation' (Huntington 1993) countries, such as Greece, Spain and Portugal, began in the 1970s³⁰. Therefore, even if not for all countries, this thesis can investigate almost 80 years of political development in the electoral and governmental arenas.

Cross-national research on governments has widely employed extensive datasets to investigate government stability and other issues related to cabinets' lives (Franklin and Mackie 1984; Budge and Keman 1990; Warwick 1994; Martin and Stevenson 2001; Strøm, Müller, and Bergman 2008). However, the 21 countries investigated in this thesis expand previous studies' samples, both in quantitative terms (numbers of countries analysed) and by introducing unexplored countries. In fact, while many of these countries have been regularly included in coalition research, others, such as Malta, Cyprus, and Switzerland, have been disregarded.

³⁰ Specifically: Karamanlis IV (Greece, 1974), Suarez I (Spain, 1977), and Soares I (Portugal, 1976).

Notably, Franklin and Mackie (1984) focused on 12 countries (Austria, Belgium, Denmark, Finland, Germany, Ireland, Israel, Italy, Luxembourg, the Netherlands, Norway and Sweden). Budge and Keman (1990) investigated 19 countries, yet neglected Greece, Iceland, Portugal and Spain. Moreover, Warwick (1994) covered a wide range of countries, yet limited his attention to the (unstable) French Fourth Republic rather than the Fifth. Both the Fourth and Fifth French Republics were excluded by Martin and Stevenson's (2001) investigation, which also overlooked Finland, Greece, Portugal and Spain. Finally, Strøm, Müller and Bergman (2008) focused on a wide range of countries (17) yet did not consider Cyprus, the French Fourth Republic, Israel, Malta and Switzerland. Therefore, the dataset built for this thesis covers the widest range of Western parliamentary democracies over the longer period of time ever investigated. This large number of countries (and observations) allows us to not only test the research hypotheses in a reliable manner but also to investigate how the countries under study display considerable variation in terms of frequency and setup of coalition governments (e.g. common, and fragmented coalitions in Italy and Israel, common and cohesive coalitions in Austria and Germany) and their minority or majority status: the former a rare event in countries such as Greece, the United Kingdom and Malta, but an everyday affair for Scandinavian countries.

The 21 countries under examination are all ascribable to Europe except Israel, which can, however, be considered a country of European heritage (Hazan, Dowty, Hofnung, and Rahat 2021) and has been included in past works' samples (Franklin and Mackie 1984; Budge and Keman 1990; Martin and Stevenson 2001). Overall, the sample incorporates six southern European countries (Cyprus, Greece, Italy, Malta, Portugal, and Spain), five northern European countries (Denmark, Finland, Iceland, Norway, and Sweden); seven Western European countries (Austria, Belgium, France, Germany, Luxembourg, the Netherlands, and Switzerland); two countries of the British Isles (the United Kingdom and Ireland); and one additional culturally European country³¹ (Israel). Regarding the temporal framework, the extensive configuration of the dataset allows verification of trajectories of government stability – and of additional phenomena – considering important moments in the history of single countries and of the entire continent, such as the fall of the Berlin Wall and the outbreak of the Great Recession.

³¹ In addition to historical considerations, the inclusion of Israel in the analysis can be justified also by the fact that it has a multi-party parliamentary democracy which operates under the liberal-democratic perspective. Thus echoing the systemic configuration of some European political systems.

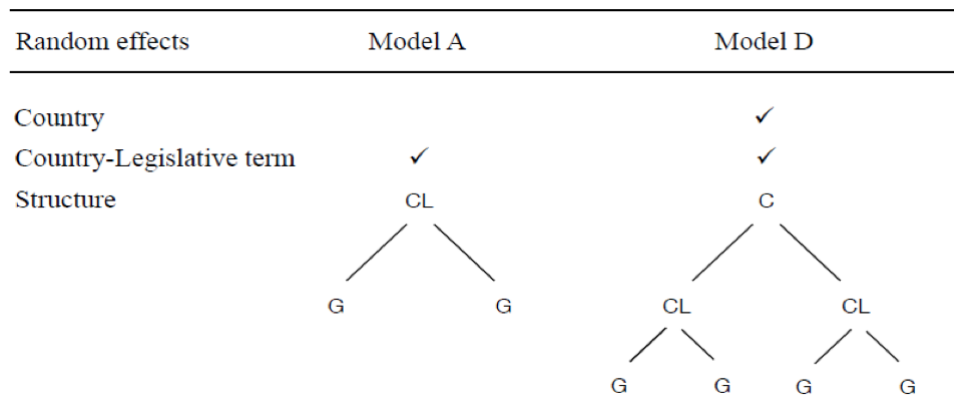
Similar to Bergman, Gerber, Kastner and Nyblade (2008), in this thesis, I take an approach that is as cross-national as possible. Specifically, the thesis does not seek to explain how or why a particular cabinet formed or terminated in some country but rather what factors produce common and generalizable trends across countries and over time (Bergman, Gerber, Kastner, and Nyblade 2008: 87). By adopting this perspective, I join Bergman and colleagues (2008) in their challenge to comparative politics scholars who argue that each country must be understood in isolation³², that factors such as institutions alone determine outcomes, or that the preferences of the actors involved are all that matter. In the dataset collected – and in the analytical section of the thesis – I value the relevance of different clusters (or blocs of variables) that have been regularly studied in isolation but are experiencing a growing consensus that they should be investigated in combination (King, Keohane and Verba 1994; Bergman, Gerber, Kastner and Nyblade 2008). This is not limited to enquiry into government stability but encompasses the broader study of government coalition politics.

Moreover, this thesis expands the timeframe of previous studies, providing the most extensive time coverage for an investigation on government stability. As noted by Müller, Bergman, and Strøm (2008), ‘cross-national studies of coalition politics, and particularly those committed to an extensive research design, have tended to recycle the same, or very similar, data on the post-Second World War parliamentary democracies’. In their work, they sought to improve this state of affairs in different ways, particularly by including the decade of the 1990s. More recently, the ERDDA group of the Umeå University further expanded the data collection, yet no comprehensive work aiming at analysing government stability derived from such an impressive effort. By constructing a new original dataset, this thesis includes the decade of the 2000s, 2010s, and 2020s. No previous extensive designs offer such a wide temporal scope (see e.g. De Swaan 1973; Laver and Budge 1992; Laver and Shepsle 1996; Strøm 1990; Warwick 1994).

As regards the structure of the data, the dataset comprises three different levels. Specifically, it is based on country-level, legislature-level, and cabinet-level variables. The dataset has a hierarchical matrix, as the 720 cabinets are nested within 421 legislatures, in turn nested within 21 countries.

³² However, this is certainly true for studies aiming at investigating the specificities of single cabinet formations or terminations without attempting to provide a general explanation of government stability in a wider range of political systems.

Figure 4 - Multilevel structure of the dataset



Note: C: Country; CL: Country*Legislative term dyad; G: Government. Source: Adapted from Schmidt-Catran and Fairbrother (2016: 25) and Emanuele, Improta, Marino, and Verzichelli (2022)

As suggested by Rabe-Hesketh and Skrondal (2008), with this type of data structure, simple linear regression modelling would return biased results, as errors among units belonging to the same cluster will likely covary: cabinets within the same legislature or legislatures within the same country (Emanuele, Improta, Marino, and Verzichelli 2022). The groupings in the dataset arise in a nested fashion; therefore, a shared frailties specification when performing Cox regression should be used. Thus, the methodological approach adopted in this thesis requires consideration of such a hierarchical structure.

2.3 Methodology

The survival regression analyses performed aimed to estimate the effect of multiple sets of independent variables (*explanans*) on the dependent variable (*explanandum*), controlling for the effects of additional independent (control) variables. As mentioned, using the presented dataset, the main modelling strategy adopted was the Cox survival model. Alongside the multilevel structure of the dataset, the time-series cross-sectional nature of it must be properly treated. In this regard, the analyses were set according to the time-series cross-section approach (Beck and Katz 1995). Nonetheless, regression analyses according to additional model specifications have been performed³³. Finally, the robustness of the results was tested by performing multiple diagnostics³⁴.

³³ Robustness checks and further controls are presented and discussed in the analysis section of the thesis. See also Appendix.

³⁴ No issues of assumptions' violation emerged.

To properly investigate the determinants of government stability, it is necessary to test whether the explanatory factors' impact analysed on the most informative types of terminations, i.e. discretionary ones. In fact, not all cabinet terminations are equal and signal instability and vulnerability. For instance, cabinets may fall simply because of regular elections, death or illness of the prime minister, or other constitutional reasons (Damgaard 2008: 308). Such types of terminations are defined 'technical terminations'. Conversely, discretionary terminations are signs of governments' difficulties to survive, as they typically include early elections, voluntary enlargement of the coalition, cabinet defeat, intra-party conflict, inter-party policy conflict, and inter-party personal conflict (Damgaard 2008: 308). These are defined 'discretionary terminations'.

Moreover, the constitutional interelection period (CIEP) must be taken into account to properly gauge the governments' different life expectancies. Of course, first governments of the legislative term intrinsically have a higher potential time in office, while later governments have a reduced time horizon. In addition, the duration of the legislative terms in the investigated democracies differ. For instance, Swedish legislatures should last maximum four years, while Italian legislatures have one year more by law. Therefore, when studying durability, I consider the potential duration of governments (Laver 2003).

Methodologically, I performed Cox analysis – a type of event-history analysis – to give an account of the standard strategy adopted in the literature on government survival that investigates this phenomenon by distinguishing discretionary and technical terminations. As mentioned, the former are terminations that are 'deliberately brought about by the actors involved, even if these actors may feel that they have no other options' (Damgaard 2008: 304). In other words, discretionary terminations are the outcome of party leaders' strategies for evaluating the options available under specific political conditions. On the other hand, technical terminations are those that 'occur for reasons that are beyond the control of players in the coalition game' (Damgaard 2008: 303). Because of such differences, the literature focused on discretionary terminations, as they are produced by actors' considerations and therefore more informative and meaningful for scholars interested in government stability (Damgaard 2008: 312).

To test the impact of the independent variables presented in the first chapter of this thesis in relation to discretionary terminations, I used Cox proportional hazards models (Cox 1972) with shared frailty. Cox techniques were initially used to study issues in medical research, yet it has become widely employed in investigations of government survival rates over their lifespans.

Cox models are ‘semiparametric’, as they blend the linear representation of covariates with the baseline hazard (Fox and Laughton 2002). Therefore, there are no assumptions about the shape of the baseline hazard function. However, there are other assumptions that must be met, such as independence and proportionality (Schoenfeld 1982). Standard Cox models assume proportional hazards, that is, hazard ratios are constant over time. To check and heal violations of this assumption, there are ways, e.g. log-rank test. Such a test has been performed and it did not return issues of assumption violations.

Among the survival analysis’ estimation methods, semi-parametric techniques are a good ‘compromise’ between efficiency and robustness, as it implies fewer assumptions on time compared to parametric techniques (yet more compared to non-parametric) and it allows for better predictions compared to non-parametric methods. Along these lines, Cox regression estimates effects of covariates on the hazard while being ‘agnostic’ about the baseline hazard, i.e. partial likelihood.

The baseline hazard is one of the fundamental notions in survival analysis and signals the likelihood of the event’s occurrence when the vector of all the covariates is zero, thus identifying the effect of underlying events in the model. In Cox modelling, the hazard rate indicates the probability that cabinet termination occurs at a specific time point on the basis that such a specific event has not yet happened (Box-Steffenmeier and Jones 2004). In formal terms, the model works by indicating the censor variable that informs us about the occurrence of cabinet termination, which is the event of interest. The Cox proportional hazards model is given by the following formula (Cox 1972):

$$h(t|X) = h(t) \exp (X_1\beta_1 + \dots + X_p\beta_p).$$

In a nutshell, $h(t)$ represents how the risk of cabinet termination changes with time, whereas \exp indicates the effect of the covariates. However, standard Cox regression does not take into account random effects. Hence, I performed Cox regression with shared frailty. Specifically, parallel to random effects for regression models – as the ones computed in linear modelling – a shared frailty set random effects for survival analysis. A frailty is a latent random effect that enters in a multiplicative fashion on the hazard (Gutierrez 2002). Along these lines, observations are nested in groups, similarly to random effects in standard linear models. I fit a Cox shared frailty model by specifying the groups over which frailties are shared. As shared frailty models are used to model

within-group correlation, observations within a group are correlated because they share the same frailty (Gutierrez 2002). Such considerations very much follows the ones made for the multilevel models, that are performed according to Schmidt-Catran and Fairbrother (2016) suggestions. Including shared frailties, the hazard is transformed as follows:

$$h_{ij}(t) = h_0(t)\alpha_i \exp(X_{ij}\beta).$$

Following Gutierrez (2002), in a Cox model with shared frailty the data are organised as the observations j are nested in the i th group. The group-level frailty is represented by α_i . The basic advantage of including shared frailties in Cox regressions is that we can model the correlation that might occur in specific groups. For instance, the correlation can derive from a latent country- or legislature-level effect or frailty influencing multiple cabinets in the same legislature or country. To control for this potential correlations, shared frailty allows to fit a model specifying such effects. As will be shown in the analytical section of the thesis, by computing Cox analysis with shared frailties it is displayed by looking at the likelihood-ratio test of theta³⁵ a significant frailty effect, meaning that the correlation within countries cannot be ignored.

Another issue to carefully consider is the dealing with ties in partial likelihood. There are different methods to be employed. The simplest and fastest method is the Breslow method for ties. Other methods are Efron, Exact-Partial, and Exact-Marginal. Since the computations required for these methods are considered more expensive (Skopek 2022), I adopted the standard Breslow method for handling the ties³⁶.

Finally, starting from the seminal contribution by David R. Cox (1972), Cox modelling soon began to be employed in several studies in medicine, economics, and social science. Currently, the study by Cox (1972) represents one of the most cited papers in social science with more than 50,000 direct citations (Skopek 2022).

³⁵ The likelihood-ratio test of $\theta = 0$ is a boundary test requiring consideration when it comes to the calculation of its p-value (Gutierrez, Carter, and Drukker 2001). However, the computed models do not present issues in this regard.

³⁶ Using the software STATA, this method is the default.

2.4 Failure variable, analysis time and independent variables

This thesis investigates government discretionary termination as failure variable (in Cox terminology) and government duration in days as analysis time (dependent variable).

Before presenting the features of such variables, it is important to clearly define the basic unit of observation of this thesis: the cabinet. In their groundbreaking work, Müller and Strøm (2000) clarified the definition of a cabinet. Specifically, ‘a cabinet is the set of politically appointed executive offices involved in top-level national policymaking’ (Müller and Strøm 2000: 11). Similar to Müller and Strøm (2000), this thesis considers prime ministers and ministers as the government personnel of interest. Under-secretaries and junior ministers are not counted as government members. Following Müller and Strøm (2000), this conception allows a greater comparability³⁷.

As previously mentioned, actual governmental duration functions as an empirical referent for the concept of government stability. I define *government stability* as a government’s capacity to last in office over time. While government stability is not a *sufficient* source of effective governance, it can be argued that it is certainly *necessary*. Therefore, it is possible to argue that long government duration can function as the prerequisite for government stability (and effective performance). On the one hand, cabinets struggling to survive are not well equipped to fully implement their policies. On the other hand, unstable cabinets (and ensuing high cabinet turnover) decrease the accountability of the general political system, as voters may fail to identify actors responsible for specific policy interventions (Huber 1998).

Table 7 - Descriptive statistics of the analysis time and of the failure variable

Variable	Observations	Mean	Standard deviation	Min	Max
Duration	720	707.5	524.8	2	1935
Termination type	720	0.489	0.500	0	1

³⁷ However, the room for grasping nuances on local institutions and usage is greatly reduced (see Müller and Strøm 2000, p. 12).

Note: The minimum duration is recorded by two cabinets of the Fourth French Republic: Schuman II and Queuille II (Casal Bértoa and Enyedi 2022). The longest duration is that of the Werner III cabinet in Luxembourg. Source: Author's elaboration on official data.

Empirically, government duration indicates the time in office – measured in days – spent a given government. The cabinet starts its time in office when the government is inaugurated by the head of state and terminate on the date of the general election or on the date of the formal resignation of the cabinet. Specifically, I aim to investigate the conditions boosting or hindering the survival rates of governments by focussing on the lower or higher risk of experiencing termination either in forms of early election calling and cabinet replacement.

As noted by Saalfeld (2008), government stability in terms of the time elapsed between a cabinet's appointment and termination can be measured in two ways. The first is the actual duration in days. The second is the 'relative duration', which is a percentage of its maximum feasible duration (Müller and Strøm 2000). As mentioned, a relevant role in the research strategies adopted in previous contributions is played by the constitutional inter-election period (CIEP), which measures the maximum possible duration of cabinets considering the countries in which they operate and their conditions when they are sworn in. For instance, cabinets formed immediately after elections have, by definition, longer life expectancies than cabinets formed at a later point during the inter-electoral period (Saalfeld 2008). Moreover, cabinets ruling in countries where the CIEP is shorter have reduced potential durations compared to cabinets acting in countries where the CIEP is longer. Controlling for such differences appear to be an effective strategy for dealing with contextual specificities. In the literature, government actual duration and government durability are often included in the same study (Conrad and Golder 2010; Rubabshi-Shitrit and Hasson 2022). Government duration is the actual time in office spent by the government. Government durability is the *potential* duration of the government. Therefore, by considering duration as the analysis time and discretionary terminations as the phenomenon of interest, I examine the hazard ratios associated with the sets of independent variables. Hazard ratios are similar to odds ratios regarding the interpretation. Higher hazard ratios indicate higher risk of experiencing discretionary termination. Conversely, lower hazard ratios signal lower risk.

The main independent variables tested in this thesis are type of cabinet, technocratic share, government innovation, constructive vote of no-confidence, coalition agreement, public debt, and fragmentation in parliament. To begin with, the type of cabinet has been

operationalised as a categorical variable. Specifically, five different cabinet types are included: multi-party minority (0), single-party minority (1), oversized coalitions (2), minimal winning coalitions (3), and single-party majority (4). I constructed such a variable by considering the number of parties participating in the government³⁸ and their parliamentary seat share³⁹. In bicameral systems, the ruling party's seat share considered is that in the lower house. The cabinet types have the following features. First, multi-party minority governments are formed by two or more parties that do not hold a majority of seats in the legislature. Second, single-party minority governments share the characteristics of multi-party minority governments, yet they are formed by a single political formation. Third, oversized coalitions are governments formed by a surplus of parties, compared to the number of required parties to obtain a majority of seats in the legislature. In this vein, they are considered non-rational solutions, as such governments would reduce parties' office benefits and increase transaction costs (Riker 1962). However, as recently noted by Shomer and colleagues (2022), the alleged instability deriving from such ruling configurations should not be taken for granted. Following Riker's size criterion (1962), the fourth category of cabinet types included was that of minimal winning coalitions. Such coalitions entail the smallest number of parties that together can secure a parliamentary majority. Finally, single-party majority governments are formed by a single political party that holds the majority of seats in the parliament. To construct this variable, I relied on Riker (1962) and Müller and Strøm (2000). The sources for the number of government parties are Casal Bértoa and Enyedi (2022) and, in case of missing data, Sonntag (2015). The sources for government parliamentary support are the official data provided by the electoral authority in each country.

The second main independent variable is the share of technocratic positions in the government. As in Emanuele, Improta, Marino and Verzichelli (2022), unlike other studies focusing only on full-technocratic governments (McDonnell and Valbruzzi 2014) and technocratic-led cabinets (Wratil and Pastorella 2018), I consider the overall weight of technocracy in the 21 Western democracies' cabinets. This operationalisation provides a more encompassing picture of the recourse to technocratic appointments. Detecting the 'shades' of technocracy (Verzichelli and Cotta 2018) rather than focusing on technocrat-led or full-technocratic cabinets also allows for a more detailed understanding of

³⁸ That is, holding ministerial seats.

³⁹ To be precise: how many seats in the lower chamber of the parliament are held by each governing party.

technocrats' ruling centrality when they occupy governmental posts in partisan executives (Amorim Neto and Strøm 2006). Along these lines, the independent variable is the share of technocratic positions, measured as the share of ministries held by technocratic personnel in a specific cabinet at the time of government formation. Like Emanuele, Improta, Marino, and Verzichelli (2022), I define technocrats as non-partisan ministers – i.e. ministers who are not formally affiliated with political parties. The operationalisation of technocratic share is based on the total number of ministries, including the prime ministerial post, and not on the total number of ministers. The variable takes a value of 0 if the cabinet is formed by all partisan personnel, while it takes a value of 100 if the cabinet is full-technocratic. The rationale behind this calculation is weighting positions, not people, as if the same person holds two different ministries, there is not one but two positions to be considered, held by the same minister (Emanuele, Improta, Marino, and Verzichelli 2022). As for the cabinet type, information on government composition derives from Casal Bértoa and Enyedi (2022) and, in case of missing data, from Sonntag (2015).

The last variable belonging to the government attributes category is government innovation. Similar to technocratic positions, this variable is operationalised as the share of new parties in the government, namely the number of ministries held by a new party (Chiaramonte and Emanuele 2022). The variable takes a value of 0 if no new party holds ministries in the cabinet, whereas it takes a value of 100 if new parties control all ministerial positions. As mentioned in Chapter 1, I expect that the greater the presence of new parties in government, the longer the time in office, as new parties may wish to maximise office benefits when finally reaching the governing phase of their life cycle (Deschouwer 2008).

Moving to the institutions and rules cluster, I tested the impact of the constructive vote of no-confidence. To properly verify this variable's effect, I rely on Lento and Hazan's (2022) recent theoretical framework. Specifically, three criteria should be carefully considered when studying motions of no-confidence. The first is the presence of a minimum threshold for proposing a no-confidence procedure. The second is the presence of a voting quorum for validating the motion. The third is the provision of temporal constraints for advancing a no-confidence vote. Along these lines, degrees of permissiveness or restrictiveness were detected. More permissive motions are no-confidence procedures that require a regular plurality. Then, restrictiveness increases when an absolute majority is needed. Finally, the most restrictive procedure is that of the

constructive vote of no-confidence, requiring the expression of simultaneous support to an alternative cabinet to successfully terminate a cabinet through a no-confidence vote (Improta 2022). From this perspective, the operationalisation of the variable is as follows: Focusing on the voting stage – i.e. majority (simple or absolute), no-confidence (regular or constructive), vote (secret or open) (Lento and Hazan 2022: 9) – the variable gives a score that ranges from 0 to 1 based on the permissive/restrictive scale of the vote of no-confidence. Specifically, the variable takes a value of 0 if the vote of no-confidence requires a regular plurality. Then, the variable takes a value of 1 if the vote of no-confidence requires an absolute majority and a constructive procedure. Therefore, the variable takes the highest value on the scale of restrictiveness.

The second variable belonging to the institutional and rules cluster regards the presence of a coalition agreement. To verify the impact of this relevant factor potentially influencing government stability (see, for instance, Krauss 2018), a dichotomous variable has been collected. Specifically, the variable assumes value 0 if the government did not form under a coalition agreement in either written form or tacitly. Absence of both pre- and post-electoral coalition agreements are considered. Such cases also includes situations of coalitions formed during the parliamentary term and not immediately following elections. Conversely, the variable takes value 1 if the government formed in presence of a written coalition agreement. Data on coalition agreements are retrieved from the December 2021 release of the European Representative Democracy Database, collected by the Umeå University researchers.

Moving to contextual factors, the first independent variable considered was public debt. This indicator is an important way for governments to finance investments in growth and development. However, it is also critical that governments continue servicing their debt and that their debt burden remains sustainable. Entering into debt distress is often a painful process that may threaten macroeconomic stability and set back a country's development for years (International Monetary Fund 2020). To properly gauge threats derived from high public debt, I operationalise this variable by calculating it one year before the formation of each government. The data on public debt levels come from the International Monetary Fund. Consideration of the one-year lagged value of debt allows investigation of the economic condition that a new government has to manage, thus linking public debt and ruling responsibility in a finer-grained fashion compared to other strategies.

The second contextual variable is fragmentation in parliament. Previous research on government stability has already emphasised its destabilising role vis-à-vis cabinet tenure (Grotz and Weber 2012), as well as several related matters concerning democratic governance (Strøm, Müller, and Bergman 2008). Overall, party system fragmentation is a well-known and widely employed indicator for investigating many phenomena in political science. I operationalise this concept by relying on Laakso and Taagepera's (1979) effective number of party criteria. In their proposed index, parties become relevant (see the discussion in Sartori 1976) in terms of their strengths in parliamentary seats held. Therefore, parties are counted according to their weighting in seats. The data on fragmentation in parliament was retrieved from Gallagher (2020).

Table 8 - Descriptive statistics of the independent variables

Variable	Observations	Mean	Standard deviation	Min	Max
Type of cabinet	720	2.26	1.18	0	4
Share of technocratic positions	720	7.35	18.9	0	100
Government innovation	720	3.83	14.3	0	100
Vote of no-confidence	720	0.08	0.27	0	1
Coalition agreement	720	0.39	0.49	0	1
Public debt	493	56.06	35.07	4.80	180.5
Fragmentation in parliament	685	3.98	1.40	1.96	9.7

Source: Author's elaboration

2.5 Control variables

Research on government stability has devoted particular attention to several potential explanatory factors. In this vein, to effectively test the impact of the presented independent variables, additional variables must be included in the analysis.

To begin with, a relevant indicator tested in past contributions is the ideological preference of the cabinet. Therefore, I collected information on the left–right position of the governments. This variable is operationalised as follows. Drawing upon Woldendorp and colleagues (2000), I followed the strategy already utilised and validated in Emanuele,

Improta, Marino and Verzichelli (2022). Specifically, I generated a categorical variable to indicate whether a cabinet is left-leaning, centre-leaning or right-leaning. The variable is based on the ParlGov party family identifier (Döring and Manow 2021). Each party family was assigned a position from 1 to 5 according to the left–right spectrum. ParlGov party families were classified as follows: communist/socialist (1), social democracy and green/ecologist (2), agrarian and liberal (3), Christian democracy and conservative (4), and right-wing (5). In order to assess the left–right position of the cabinets, I measured the weight of each ruling party holding ministerial seats. The criteria adopted are the following. *a)* If a single government party holds at least 66.6% of the ministerial seats, the left–right position of the government is the position of that party. *b)* If none of the ruling party holds at least 66.6% of the ministerial seats, the ideological position is assigned according to that of government party which holds the absolute majority of ministerial seats and whether contiguous or non-contiguous party families form the government. Unlike Woldendorp and colleagues (2000), the share of parliamentary seats of the ruling parties is not considered, as the focus is on the degree of dominance in the governmental arena. In addition, what Woldendorp and colleagues (2000) label as a ‘balanced situation’ is not included, as, employing the presented criteria, the parties’ degree of dominance in the executive is always detectable. Alongside the cabinet ideological position, I also include a dichotomous variable indicating whether the prime minister belongs to a left party or not, as an alternative source of cabinet left–right position that, rather than observing the ministerial composition, focuses on the prime ministerial figure. Finally, to further testing the impact of cabinet ideology, I include the Right-Left position of the cabinet (RILE) as a weighted measure of the governing parties’ RILE. Specifically, I used the last release of the Comparative Manifesto Project (CMP), i.e. 2021a. The coding rules are as follows: in cases of single-party governments, the RILE is that of the single ruling party. In cases of coalitions, a weighted average of RILE positions is performed, by considering the ministerial seats held by the parties in government.

Furthermore, I account for three additional government attributes. The first is the governments’ parliamentary support by looking at the share of parliamentary seats held by ruling parties. In the cases of bicameral systems, the representative assemblies considered are the lower houses. The second is the fragmentation in the governmental arena, in terms of the effective number of government parties, echoing Laakso and Taagepera’s (1979) already presented index. Lastly, to account for the disruptive impact

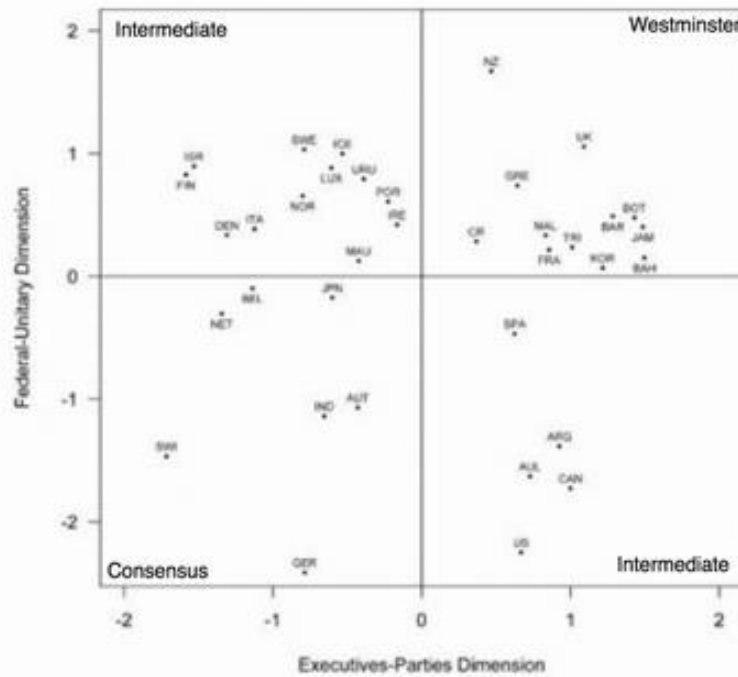
of new cleavages (Hutter and Kriesi 2019) and parties emerging from such new conflict lines (Kriesi et al. 2006; Emanuele, Marino, and Angelucci 2019), I included a variable measuring the share of demarcation⁴⁰ parties in government.

Moving to the institutions and rules cluster, the analyses control for positive parliamentarism, which is a variable indicating the presence or absence of a positive investiture requirement. Empirically, negative parliamentarism can be found in Portugal, Denmark, and Sweden, where unless more than half of all Members of Parliament vote against the cabinet, it is inaugurated (Bergman 1993; Bergman, Gerber, Kastner, and Nyblade 2008: 101). This distinction is of particular relevance when it comes to defining what constitutes a minimal ‘winning’ coalition (Bergman, Müller, Strøm, and Blomgren 2003: 148).

Moreover, government stability might be affected by the rules of the electoral system and, more generally, by the country’s democratic model. To grasp the effects of the former, I include a variable indicating whether the country, in the specific time span, adopted a proportional representation system (0), a mixed system (1), or a majoritarian system (2). Data come from Bormann and Golder (2022). As for the latter, an original variable is constructed based on Lijphart’s (1999) classic typology concerning the models of democracy.

Figure 5 - Lijphart’s (1999) models of democracy revisited

⁴⁰ Demarcation parties’ features entail the following stances: anti-immigration on the cultural dimension, anti-European integration on the institutional dimension, and protectionism on the economic dimension (Emanuele, Marino, and Angelucci 2019).



Source: Author. Adapted from Lijphart (1999).

Specifically, the trichotomous variable has a value of 0 in cases of consensual democracies, 1 for hybrid (i.e. in an intermediate position) systems, and 2 for majoritarian/Westminster models.

Additionally, following a dynamic perspective and building upon the life cycle approach, a variable measuring the uncertainty and complexity in the bargaining environment must be considered (Lupia and Strøm 2008; De Winter and Dumont 2008). This variable is bargaining duration, operationalised by looking at the overall duration of the bargaining process, measured in days, i.e. government formation date minus election date, in cases of first governments in the legislature, and government formation date minus previous cabinet's end date. This index specifies the amount of time – in terms of time spent in negotiations – taken by *formateurs* in order to form a coalition. This serves as a proxy for gauging the complexity and uncertainty of the bargaining process (De Winter and Dumont 2008). Nonetheless, it must be noted that there is a lack of consensus in the literature on the bargaining duration's impact on government stability. On the one hand, scholars have argued that a longer bargaining duration produces a shorter government duration. In this vein, bargaining delays are interpreted as a symptom of complexity in forming feasible coalitions. On the other hand, studies deem prolonged bargaining to be a sign of careful consideration of the potential benefits derived from

joining a coalition government and of the policies to implement. Thus, a longer bargaining duration would return a longer government duration.

Moving to contextual features, I include variables concerning the stabilisation of the democratic system, economic conditions, and social distrust. To begin, I control for the country's age of democracy. As underlined in several studies (e.g. Rama Caamaño and Casal Bértoa 2020; Chiaramonte and Emanuele 2017), younger democracies have more volatile electorates, indicating that the greater the age of democracy of a given country, the higher its levels of liberal democracy. Drawing upon this framework, I expect the age of democracy to positively influence government stability, as, like party system stabilisation, reaching government stability should be easier for consolidated democratic systems and more difficult for young democracies.

Moreover, research on government stability (King, Alt, Burns, and Laver 1990) also tested the impact of electoral volatility, pointing out that this phenomenon has a destabilising effect on cabinet endurance. Drawing on measures by Chiaramonte and Emanuele (2017) and using data from Emanuele (2015), I verify the effect of total volatility – which entails two components⁴¹: alteration volatility⁴² and regeneration volatility⁴³ – measuring the net aggregate electoral shifts between two consecutive parliamentary elections (Pedersen 1979). Ruling parties are dramatically challenged by increased electoral volatility. Indeed, in environments characterised by elastic voter responses, ruling parties will face the responsibility–responsiveness dilemma examined by Peter Mair (2009; 2013). Specifically, parties with governing duties need to be responsible for supranational institutions, while at the same time remaining responsive to voter demands. If this latter goal is not achieved, voters in elastic contexts are likely to punish unresponsive parties. However, this punishment might be evident even before election day. Unsatisfied voters can express their opposition to governmental actions while the government is in office, decreasing its approval rates and undermining its survival by manifesting its restlessness. Since most of the countries forming the sample are strongly tied with European Union (EU) institutions, thus reactivating the already

⁴¹ Other parties' volatility is a third, albeit residual, component of the total volatility index, measuring the volatility due to electoral shifts among those parties which fall below 1% in both t-0 and t-1 elections.

⁴² Electoral volatility due to electoral shifts among established parties (Chiaramonte and Emanuele 2017).

⁴³ Electoral volatility due to the entry of new parties or the exit of old parties from the party system (Chiaramonte and Emanuele 2017).

discussed responsibility–responsiveness dilemma (Mair 2009; 2013), I introduce two additional controls, as in Emanuele, Improta, Marino and Verzichelli (2022). The first is an ordinal variable for detecting the impact of European constraints, which particularly focuses on EU membership. Specifically, the EU membership⁴⁴ variable has a value of 0 if the country is not a member of the EU in a given year and a value of 1 if the country is an EU member. The second variable is a dichotomy, indicating whether a country signed a Memorandum with Troika⁴⁵ – i.e. the European Central Bank, the European Commission, and the International Monetary Fund – to tackle phases of financial crises, thus being subjected to harsh programmes of austerity hindering governments’ policy autonomy (Lefkofridi and Nezi 2020).

Then, concerning the economic context, I account for the effect of two additional variables: public expenditure and the GDP growth rate. Public expenditure is operationalised as a one-year lagged general government final consumption expenditure as a percentage of GDP. This index includes government current expenditures for purchase of goods and services – including compensation of employees. It also includes most expenditures on national defence and security but excludes government military expenditures that are part of government capital formation. The variable is collected on an annual basis and is operationalised as a weighted average. GDP from the expenditure side is made up of household final consumption expenditure, general government final consumption expenditure, gross capital formation, and net exports of goods and services. The relevant data were retrieved from the World Bank (World Development Indicators) and covers the 1970–2021 period. Alongside government expenditure, I focus on the GDP growth rate. As for all economy-related variables, this variable is one-year lagged – that is, measured one year before the formation of each government, to better appreciate the ability of governments to handle the economic situation since the beginning of their tenure in office. The data were retrieved from the Total Economy Database (Conference Board 2020).

When studying government stability, contextual features are not only related to economic performance and the electoral environment. The outbreak of disruptive political crises must also be taken into consideration, as in several studies investigating the

⁴⁴ Source: <https://european-union.europa.eu/principles-countries-history/>.

⁴⁵ The operationalisation of this variable follows Emanuele, Maggini and Marino (2016). Source: https://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp149_en.pdf.

duration of cabinet ministers (e.g. Fischer, Dowding, and Dumont 2012). The first variable regarding political crises is the presence of scandals. Drawing upon Wratil and Pastorella (2018), a dichotomous variable was collected. Precisely, scandals have a value of 1 if they occur and 0 otherwise. As in the case of coalition agreements, data come from ERDDA (2021). The second variable concerns the level of corruption in the country. The operationalisation of this variable follows the criterion of economic ones, as the levels of corruption are recorded one year before the formation of a cabinet to grasp their consequences on the political system. Specifically, the level of corruption can delegitimize political parties and punish ruling ones. I have used the Political Corruption Index from the Varieties of Democracy (V-Dem) dataset (Coppedge et al. 2021), ranging from 0 to 1.

Finally, all models in the analysis include a trend variable, which is *year*. As in Emanuele, Improta, Marino and Verzichelli (2022), this variable is measured at the time of each parliamentary election. In the case of multiple governments within a legislative term, year is the same across these governments. A time variable is also helpful in time-series data to avoid spurious correlations among variables that vary in a consistent direction over time (Tavits 2005).

Overall, these multiple controls allow testing of the main independent variables considered in the most encompassing way possible, considering the large number of studies carried out on government stability since the 1960s.

2.6 Conclusion

This second chapter presented the methodological features of the thesis' comparative longitudinal approach. As previously mentioned, this thesis builds on the coalition life cycle approach, maintaining that in democracies, governments are born and die after passing through different phases passing through multiple steps. Each step in the cycle is highly influenced by the previous ones. Government formation and governance are affected by the varying endurance recorded. Adopting this perspective, all steps are interrelated (Strøm, Müller, and Bergman 2008).

In this chapter, I delineated the research design and methodology adopted to effectively study the government life cycle. As mentioned, the thesis relies on an original

multilevel dataset containing information on 720 cabinets and 421 elections from 1945 to 2021. Therefore, with this hierarchical data structure, Cox semi-parametric with shared frailties specification survival analysis was performed. Similar to Bergman, Gerber, Kastner and Nyblade (2008), in this thesis, I take an approach that is as cross-national as possible. Specifically, the thesis does not seek to explain how or why a specific cabinet formed or terminated in some country but rather what factors produce generalizable trends. In doing so, I join Bergman and colleagues (2008) in their challenge to comparative politics scholars who argue that each country must be understood in isolation, that factors such as institutions alone determine outcomes, or that the preferences of the actors involved are all that matter.

To test the impact of the explanatory factors delineated and discussed in Chapter 1, I performed Cox proportional hazards models (Cox 1972) with shared frailty specifications. Cox techniques were initially used to study issues in medical research, yet it has become widely employed in investigations of government survival rates over their lifespans. Cox models are ‘semiparametric’, as they blend the linear representation of covariates with the baseline hazard (Fox and Laughton 2002). Along these lines, there are no assumptions about the shape of the baseline hazard function. However, there are other assumptions that must be met, such as independence and proportionality (Schoenfeld 1982). Standard Cox models assume proportional hazards, that is, hazard ratios are constant over time. Tests have been performed and did not display problems of assumption violations.

As presented in this chapter, actual governmental duration is the empirical referent for the concept of government stability. I define *government stability* as a government’s capacity to last in office over time. The failure variable is government discretionary termination and the analysis time (dependent variable) is government duration in days. The survival analysis performed thus focuses on discretionary types of cabinet termination. The independent variables belong to three different clusters: government attributes, institutions and rules, and context. The main independent variables tested in are type of cabinet, technocratic share, government innovation, constructive vote of no-confidence, coalition agreement, public debt, and fragmentation in parliament. Beyond verifying the effect of such main factors, I control for relevant additional variables that are discussed and presented in the chapter.

Following the illustration of the research design and methodology, the next chapter presents temporal and national variations in government stability and the main

independent variables. In it, I investigate patterns of stability and instability and grasp the specificities of countries, geographical areas, and periods for what concerns both government stability and the main explanatory factors included in the framework presented in Chapter 1.

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Chapter 3

Temporal Trajectories, National Variations, and Types of Government (In)stability

3.1 Introduction

This chapter explores the patterns of government duration in the 21 democracies under investigation, particularly the temporal trajectories, national variations and types of instability. As noted by Chiamonte and Emanuele (2022), government duration is the first sign of government stability. When it comes to citizens' perceptions of this phenomenon, it is suggested that 'any ordinary citizen who is asked to mention a tangible indicator of government stability would probably first refer to the cabinet duration. Intuitively, [...] long-lasting cabinets are a sign of government stability, while the presence of frequent short-lived cabinets is a clear indicator of government instability' (Chiamonte and Emanuele 2022: 105). Including this perspective as the starting point, the chapter gauges the peculiarities of specific time periods and national contexts in relation to government stability by exploring its empirical referent, i.e. government duration.

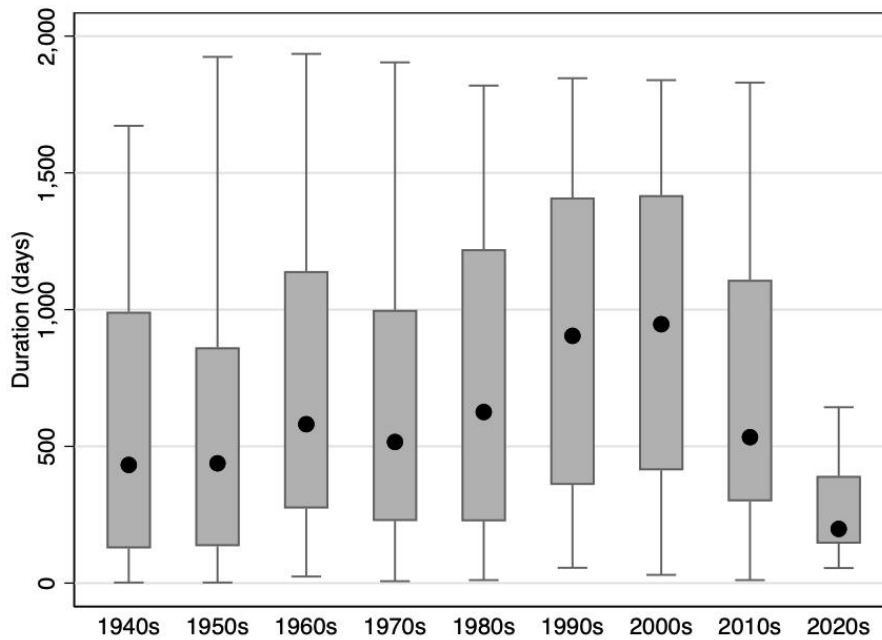
The chapter is structured as follows: Section 3.2 explores the temporal trajectories of government duration, while Section 3.3 examines national variations. Next, Section 3.4 includes an additional indicator, i.e. returnability, used to detect the type of government instability. As there can be cases of short-lived cabinets without discontinuity in the ruling actors, Section 3.4 identifies patterns of ruling instability alongside cabinet instability. Lastly, Section 3.5 concludes the chapter.

3.2 Temporal trajectories

The timespan under investigation in this thesis covers 76 years of political development in several democratic systems. Gauging temporal specificities helps to illuminate critical junctures that occurred in the governmental arena of the countries examined as time plays an important role when it comes to government stability. In some national contexts, periods of great instability are often attributed to high government turnover, as was the

case in the Weimar Republic and the French Fourth Republic, which are considered phases of excessive government turnover that ultimately threatened the very survival of democracy (Müller and Strøm 2000: 27).

Figure 6 - Temporal trajectories of government duration



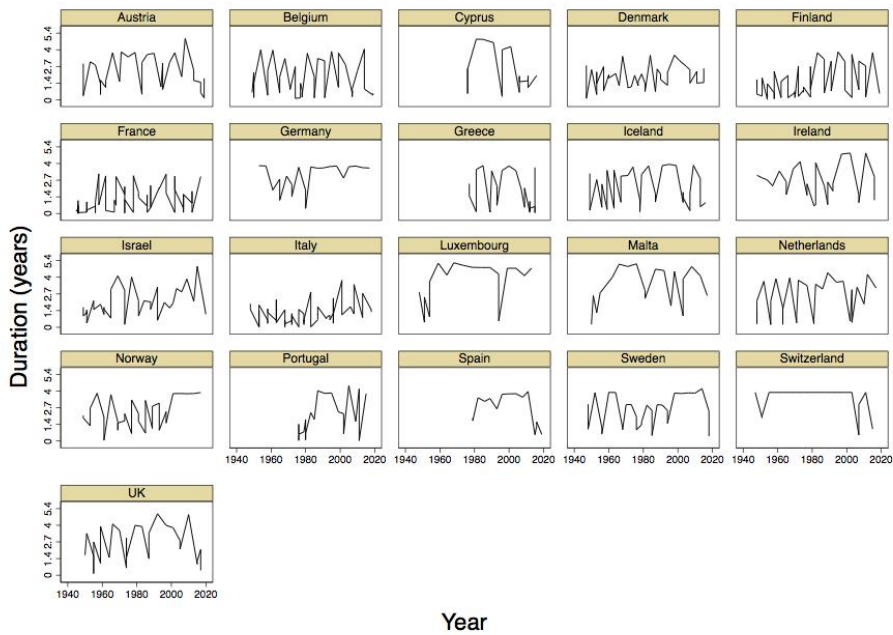
Source: Author

Figure 6 shows the temporal trajectories of the median⁴⁶ government duration, measured in days. It can be observed that from the first decade (the 1940s), there was a growing trend, almost monotonic, towards a longer duration in office. The peak was reached during the 1990s and 2000s, the periods in which the median government duration exceeded two and a half years, doubling the median duration recorded in previous decades. After this period of stability, government duration began its downfall. It first declined by half in the transition from the 2000s to the 2010s and then plunged to its lowest level since the 1940s. Such a decline signals that the governments ruling in the contemporary period face the hardest challenges when it comes to their survival in office. The levels of instability recorded in the 2020s are unprecedented and should be taken into

⁴⁶ The median duration is preferred to the mean duration as it better controls for extreme values. The dataset includes both the cabinets that lasted for few days (Italy's Andreotti 1968 cabinet) and the long-lived cabinets almost reaching their maximum potential duration (especially in Luxembourg).

careful consideration when reflecting on how to address the challenges, e.g. health and security crises, emerging in recent years.

Figure 7 - Temporal trajectories of government duration by country



Source: Author

The temporal trajectories in different decades by country displayed in Figure 7 can help appreciate whether a decline in government duration is common in all researched countries. The downward trend of government duration is observable in many democracies: Belgium, Finland, Ireland, Israel, Italy, Malta, Spain, Sweden, Switzerland and the United Kingdom. Conversely, other countries experience increased government duration in the latest period (i.e. from 2019-2020), notably Denmark, France, Greece, Luxembourg, Norway and Portugal. Interestingly, the decline can be observed not only in traditionally unstable countries, such as Italy and Finland, but also in more stable ones, such as Switzerland and the United Kingdom. Figure 7 also shows that almost all countries, except for Switzerland and, to a lesser extent, Luxembourg, have experienced frequent fluctuations.

In several countries, the decreased government duration reveals patterns of political transformations occurring in their political systems. Particularly, known as a country of prolonged bargaining, Belgium had recently experienced the formation of puzzling coalitions. The first Verhofstadt coalition introduced elements of unpredictability in the bargaining environment (Dumont 2011), relegating the pivotal Christian Democracy to opposition, while the more recent short-lived caretaking cabinets (e.g. Wilmes) led the country to multiple elections (De Winter and Dumont 2021). Higher complexity was also critical for Finland's and Ireland's cabinets. While the former witnessed the formation of ideologically heterogeneous oversized coalitions (Raunio 2021), the latter shifted from being a country of single-party governments, dominated by Fianna Fáil, to a country whose political system is characterised by short-lived coalitions, where Fianna Fáil's dominance is becoming a 'fading memory' (Mitchell 2021: 357).

Similar to Belgium, Israel's and Italy's divided societies are ruled according to power sharing in the government based on a consensual model of democracy (Lijphart 1999). However, power sharing exacerbates intracoalitional conflicts in both countries. During the COVID-19 pandemic, Israel and Italy were the only two countries to experience both government and pandemic crises simultaneously (Capati, Improta, and Sinay Lento 2022). The government crises were the result of tensions produced by the oversized configuration of the coalition governments in both countries. Specifically, from 2019 to 2021, Israel held five elections (Gedalya-Lavy and Ganel 2021) resulting in the formation of a minimal winning coalition but still comprised of several parties headed by Yamina's Naftali Bennett, which replaced the former prime minister Benjamin Netanyahu of Likud, who had ruled Israel for almost 12 years. As for Italy, Zucchini and Pedrazzani (2021) note that there are persisting high levels of internal fragmentation in Italian governments, which contributes to the increase in their instability compared to other European democracies. In the last decade, three Italian cabinets were terminated after tumultuous personal tensions and infighting among the leaders of coalition parties (D'Alimonte and Mammarella 2022; Marangoni and Kreppel 2022). On 14 February 2014, Democratic Party's Letta resigned after losing a vote of no-confidence undertaken by the party colleagues. Five years later, the first Conte cabinet collapsed as a result of the government crisis initiated by his League's coalition partner Salvini. Moreover, there were further internal conflicts behind the second Conte cabinet's termination. Matteo Renzi, the leader of the junior coalition partner Italy Alive (IV), particularly criticised Conte's approach to pandemic management (Improta 2022).

However, decreased government duration is not related solely to historically unstable countries and divided societies. Malta and Spain generally record high government duration, and the same applies for Sweden, Switzerland and the United Kingdom. Nonetheless, these countries are experiencing deep transformations in their governmental arenas. Spain is moving from a tradition of single-party majority governments to minority executives (Field 2021). Although a novelty in Spain, minority executives are the rule in Sweden (Hellström and Lindahl 2021). A peculiar case of recent times is that of the United Kingdom. Indeed, this country has had single-party governments only during the post-Second World War period, and only three times since 1945 have the general elections failed to deliver a parliamentary majority to either the centre-right Conservative Party or the centre-left Labour Party (Barlow and Bale 2021). In this sense, the Cameron-Clegg coalition of 2010–2015 stands as a clear outlier in the British tradition. As for the British governments' endurance in office, the 'nadir' observable in Figure 7 can be attributed to the post-Brexit governments' short duration. As a matter of fact, after 2015, the United Kingdom saw the formation of four cabinets (May, May II, Johnson, and Johnson II), which lasted slightly over a year on average, while the overall median duration of British cabinets is more than two and a half years.

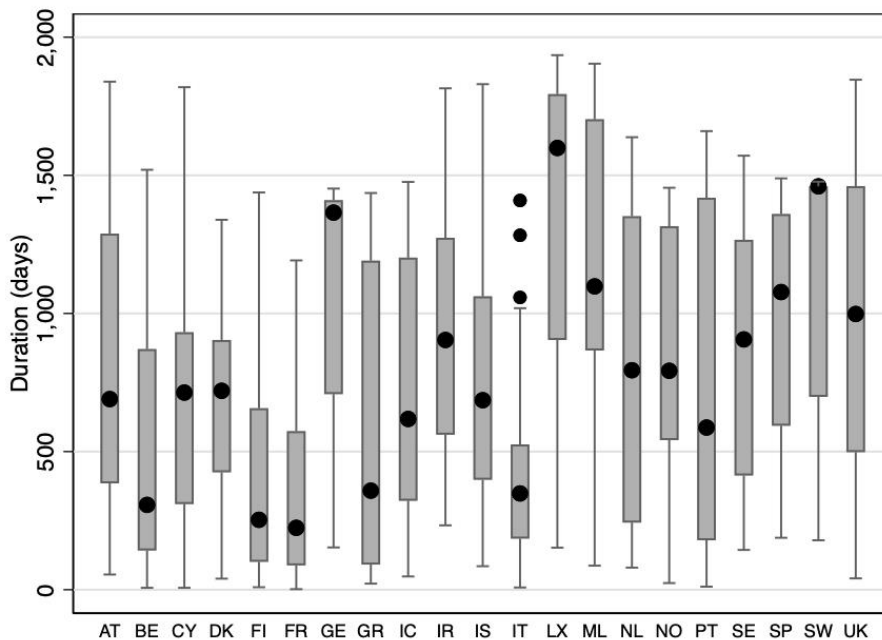
Despite the drastic decline in government durations, some countries do not share this negative trend. France experienced a small yet evident increase in government longevity in the very last period. However, considering the bigger picture, the increased stability even in other periods can be attributed to the constitutional engineering carried out to solve the instability of the Fourth Republic (during which the French governments were in office 6 months on average). Notably, the constitution of the Fifth Republic created the conditions for stable and effective governments, with a majoritarian electoral system and comparatively strong restrictive legislative procedures (Guinaudeau and Persico 2021). The recent scores of government duration suggest that these goals were actually achieved as the governments appear more stable than in the past (Guinaudeau and Persico 2021). Nonetheless, the French majoritarian setup still envisages the possibility of '*cohabitation*', which may escalates government crisis.

3.3 National variations

Government instability is a critical issue for effective governance. However, some countries need not worry about it as the longevity of their cabinets is taken for granted.

For instance, while a number of Italian institutional reforms focused, without success, on solving the problem of cabinet instability (Lanzalaco 2005), German law-makers were not affected by the issue. As noted previously, some countries experienced turbulent times in the past, and the short endurance of their cabinets was one of the main issues. While Italy is still pondering how to solve the instability issue, other parliamentary democracies, such as Germany, have successfully managed to include institutional instruments in their constitutional architecture to rationalise the parliamentary system⁴⁷ (Saalfeld 2000) and stabilise the government.

Figure 8 - National variations of government duration



Source: Author

Designed to gauge contextual specificities, Figure 8 shows the national variations in government duration in our 21 democracies. The black circle indicates the median duration recorded in each country.

As indicated in Figure 8, Belgium, Finland, France, Greece and Italy are the countries with the lowest median duration in comparative perspective. Belgium and Italy are among

⁴⁷ A notable example is the adoption of the constructive vote of no-confidence in Germany, Spain, Belgium and Israel.

the ‘divided societies’, as Lijphart (1999) expressed it. Although Italian governmental instability is well-known, the Belgian public debate started to talk about ‘Italian situations’ regarding Belgian politics only at the end of the 1990s. Associated with ungovernability, chaos and instability (De Winter et al. 1996), the term ‘Italian situations’ was also used as an argument to defend the need for radical changes in the system that culminated in the institutional reform of 1993 and introduced the constructive vote of no-confidence in light of German experience. However, many scholars argue that prolonged negotiations during the cabinet formation process constitute the major determinant of government instability in Belgium (e.g. De Winter and Dumont 2021).

Moreover, the case of France is mostly driven by the inclusion of the Fourth Republic’s period in the spatial framework. Began in 1946, this period is commonly understood as a period of instability because the duration of cabinets averaged six months, with 24 cabinets formed under 16 prime ministers in just 20 years, which is the entire time span of the regime (Huber and Martinez-Gallardo 2004). The government instability of that period raised several issues in the management of both domestic and international affairs. The Algerian crisis in May 1958 undermined the stability of the French political system, prompting the design of a new constitution, which was mostly advocated by Charles de Gaulle. As a result of the constitutional engineering process, the regime changed. The majoritarian setup of the Fifth Republic contributed to an increase in government duration and overall stability of the system. This experience is considered similar to that of the Weimar Republic by some scholars (Huber and Martinez-Gallardo 2004); however, as discussed in Section 3.4, the instability of the Fourth Republic needs to be investigated more in-depth, taking into account government returnability (Warwick 1994).

Considering the case of Finland, it is important to note that despite low government stability, Finland displays a fluctuating trend. Similar to France, much of the observed instability has been due to a specific phase. For instance, from the late 1980s to the 1990s, Finnish cabinets were primarily short-lived and based on the premise that each coalition party was responsible for its own turf (Raunio 2021), and the short endurance in office was mainly due to the large leeway the president had for intervening in the executive’s life.⁴⁸ After a major constitutional reform, the president lost most of its powers of

⁴⁸ Curiously, before the constitutional reform, Finnish cabinets were considered more accountable towards the President than the parliament (Raunio 2021).

intervention; thus, the political parties ‘simply’ needed to agree on formation rules and the effective management of the coalition (Raunio 2021).

In Greece, the Hellenic country has recently become familiar with short-lived governments and cabinet turnover. For a long time, short-lived coalition governments used to be exceptions (Tsakatika 2021). As in Spain and the United Kingdom, Greek governments were largely dominated by single-party majority configurations. Government alternation was indeed characterised by the presence of either the centre-left PASOK (Panhellenic Socialist Movement) or the centre-right New Democracy (Nea Demokratia). In recent times, several stages of the coalition life cycle in Greece have become more complex. Regarding duration in office, the shift from long-lived single-party governments to unstable coalitions has been particularly visible since the 2010s. There has been a sharp drop in relative cabinet duration in the past decade, which reflects a higher number of coalition governments since 2012 (Tsakatika 2021).

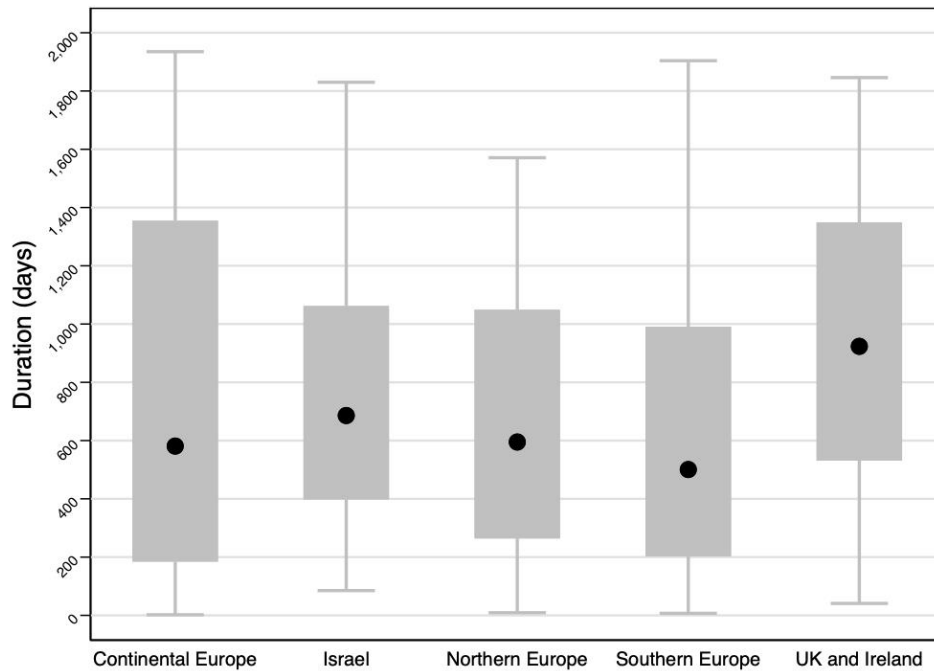
Furthermore, Figure 8 shows patterns of higher stability in Luxembourg, Switzerland, Germany and Malta. Following Lijphart’s insights (1999), Luxembourg and Malta owe their traditional governmental stability to two factors: first, they are small countries in terms of population; second, they are characterised by a relatively homogenous society without heated societal conflicts. Unlike Luxembourg, which is defined as a semi-plural society (Lijphart 1999), Malta has a unified structure. These two peculiarities allow governments to survive in office and, therefore, achieve the full term. Switzerland and Germany, on the other hand, are two federal systems that have gained stability due to reforms and institutional arrangements. The Swiss case is of great interest as Switzerland records 0% in terms of single-party governments and is among the most fragmented party systems in comparative perspective (Lijphart 1999). Despite these features, the country manages to produce long-lived cabinets, which is mostly due to the establishment of the ‘magic formula’ in Swiss coalition politics (the magic formula is an arithmetic solution for dividing the seven governmental seats on the Swiss Federal Council among four political parties). As a consensual democracy, power sharing in the executive branch of power has indeed been interpreted as an opportunity to create an environment in which most political formations are allowed to hold government positions. For a long time, this magic formula has paved the way for major parties to enter the government. It was first applied in 1959 and mainly regarded the Free Democratic Party (FDP), the Catholic Conservative Party (The Centre) and the Social Democratic Party (SDP). Another party

involved in the magic formula configuration was the Party of Farmers, Traders and Independents, now the Swiss People's Party (SPP).

As for Germany, most scholars argue that the increased stability of German cabinets is a consequence of adopting the constructive vote of no-confidence, which helps to rationalise parliamentarism (Hazan 2014; Saalfeld 2000). After the turbulent experience of the Weimar Republic, Germany acquired a long tradition of government stability, accompanied by stability in the prime ministerial personnel (Debus, Döring, and Ecker 2021). The stability of multiparty governments in Germany can also be explained by the structural change in party competition since the mid-1980s. Specifically, the liberal party (FDP) was the pivotal political formation in the prevalent two-and-a-half party system (Ware 1996) as they could either opt for joining the Christian Democrats (CDU/CSU) or the Social Democrats (SPD) (Debus, Döring, and Ecker 2021). The Liberals were successful in making a profit from this bargaining position as a 'hinge' half-party (Siaroff 2003), featured in all but four cabinets in German post-war history until 1998 (Debus, Döring, and Ecker 2021). Simultaneously, the changes in the Liberals' preferred coalition partner in 1969 and 1982 (from the CDU/CSU to the SPD and back) were a notable driver of premature government dissolution for much of the post-war period in Germany (Saalfeld 2000; Debus et al. 2021).

While Germany preserves government stability, some signals of increased turbulence are visible. For instance, as in other European countries, dealignment processes in the traditional party preferences of voters result in changes in the party system, with new political actors, such as the Greens (Grüne) and the Alternative for Germany (AfD), entering representative institutions. The entrance of such new parties produces changes in the parties' policy profiles and complexity and uncertainty in the bargaining environment. As a result, potential coalitions face more difficulties when dealing with negotiations during coalition formation processes, which are becoming lengthy.

Figure 9 - National variations of government duration by geographic area



Source: Author

Finally, Figure 9 displays the national variations of government duration by geographic area, which allows to identify three main geographical clusters (Continental Europe, Northern Europe and Southern Europe) and two additional clusters (an extra-European country, Israel; and the British Isles, the United Kingdom and Ireland). The latter area records a higher level of median government duration, whereas Southern Europe is the region with the shortest median government duration. However, as observed previously, this short duration can be imputed to the frequent cabinet turnover in Italy and Greece, whereas such countries as Spain and Malta record higher stability.

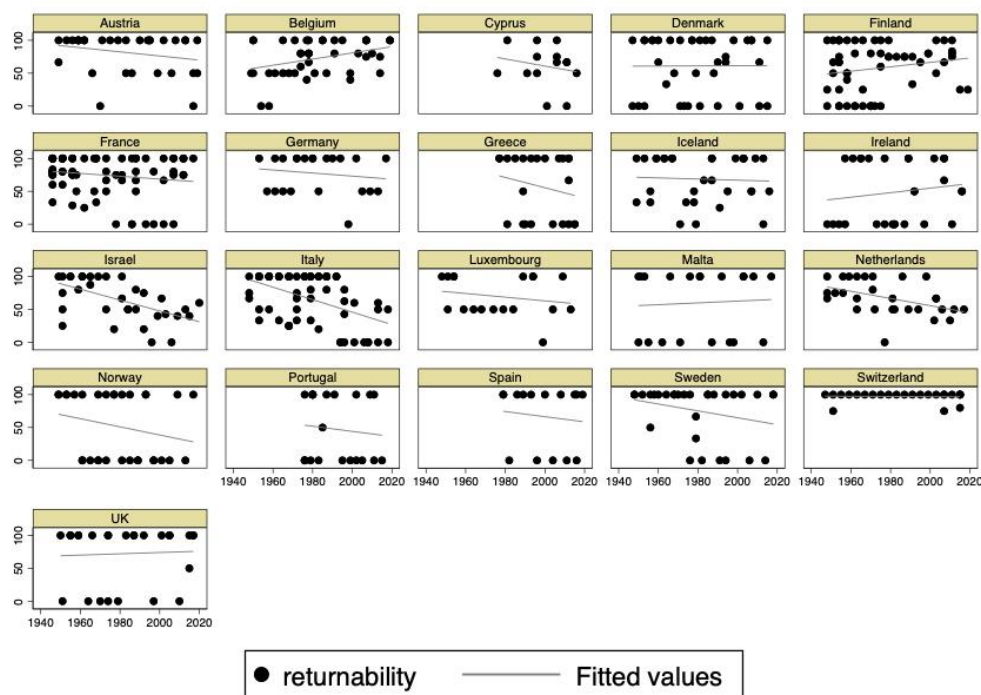
3.4 Types of instability: 21 democracies between cabinet and ruling instability

After exploring the trajectories of government duration, this section addresses the patterns of ruling parties' returnability in office by distinguishing between cabinet instability and ruling instability (Improta 2022). As noted by Battezzorre (1987), this distinction is important as studying government stability requires an additional effort that involves considering other indicators alongside cabinet duration. Political stability can persist during periods of cabinet stability, as the cases of the Fourth Republic in France

(Siegfried 1956; Huber and Martinez-Gallardo 2004) and the Italian First Republic (Calise 2015) show. Such periods were identified as times of ‘stable instability’.

To gauge the continuity in ruling actors, data on the returnability index were collected according to Warwick’s proposition (1994). This indicator is operationalised as the share of cabinet parties that return to power after their termination. Therefore, returnability indicates the ability of ruling parties to be resilient vis-à-vis cabinet collapse. In other words, it indicates parties’ ability to return. When returnability is high, there is substantial continuity in government formations, even if there is high government turnover and low government duration.

Figure 10 - Returnability in 21 democracies over time



Source: Author

Figure 10 shows the temporal variation of returnability in the 21 democracies investigated. Interestingly, well-known Italian short-lived cabinets followed different patterns over time. From 1948 to 1994, the period labelled as the ‘First Republic’, short longevity in office was accompanied by a high rate of returnability (78%). Therefore, this

period was characterised by cabinet instability and ruling stability⁴⁹ (Improta 2022). With the termination of the first transitional cabinet, Ciampi, the Italian political system underwent major changes in multiple arenas, showing a declining trend of returnability. Importantly, the pivotal Christian Democracy (DC) imploded (Cotta and Isernia 1996), paving the way for the emergence of new political formations, particularly Forward Italy (FI) and the Northern League (League). More recently, the outbreak of a challenger party, the Five Star Movement (M5S), further contributed to the increase in the unpredictability of government formation outcomes, leading to augmented innovation in the parliamentary and governmental arenas. Alongside Israel and Norway, Italy has displayed the lowest rate of returnability in the past two decades (2010s and 2020s). Political transformations occurring in Italy since the ‘electoral earthquake’ of the Italian general election in 2013 (Chiaramonte and De Sio 2014) led to the development of volatile tripolar competition (see also Chiaramonte and Emanuele 2022). During this period, Italian cabinets’ duration and discontinuity in ruling actors increased. Therefore, as argued in Improta (2022), this phase can be regarded as a period of both cabinet and ruling instability.

The overwhelming majority of countries, including Italy, Israel, Norway, the Netherlands, Greece and Portugal, experience downfalls in returnability. In contrast, a rising trend in returnability is recorded in Belgium, which is a country with increased cabinet instability. Moreover, the Swiss case is peculiar: Switzerland is commonly known as the country of the ‘magic formula’ when it comes to government formation (Steiner 1982), and the installation of innovative cabinets is rare, so much so that returnability reaches the highest threshold (97%) in comparative perspective.

Table 9 - Patterns of cabinet and ruling stability in 21 democracies

⁴⁹ The presence in the legislative arena of the Italian Communist Party (PCI) and the Italian Social Movement (MSI) was critical for the lack of government innovation and discontinuity, as both parties were barred from the government, thus restricting the available options for interparty coalitional bargaining (Improta 2022). The same applied in the case of the French Communist Party (PCF) for several years.

Country	Duration	Returnability	Outcome
Austria	690	82	Cabinet stability and ruling stability
Belgium	307	72	Cabinet instability and ruling stability
Cyprus	713	61	Cabinet stability and ruling instability
Denmark	720	61	Cabinet stability and ruling instability
Finland	253	59	Cabinet instability and ruling instability
France	224	75	Cabinet instability and ruling stability
Germany	1365	77	Cabinet stability and ruling stability
Greece	358	55	Cabinet instability and ruling instability
Iceland	618	69	Cabinet stability and ruling stability
Ireland	904	49	Cabinet stability and ruling instability
Israel	686	65	Cabinet stability and ruling instability
Italy	348	65	Cabinet instability and ruling instability
Luxembourg	1599	69	Cabinet stability and ruling stability
Malta	1098	60	Cabinet stability and ruling instability
Netherlands	794	68	Cabinet stability and ruling stability
Norway	792	52	Cabinet stability and ruling instability
Portugal	587	48	Cabinet stability and ruling instability
Spain	1077	66	Cabinet stability and ruling instability
Sweden	906	76	Cabinet stability and ruling stability
Switzerland	1460	97	Cabinet stability and ruling stability
United Kingdom	998	70	Cabinet stability and ruling stability

Source: Author. Note: total median duration (days): 587; total returnability (mean): 67%.

It is necessary to consider ruling instability to better appreciate the type of government instability characterising the 21 democracies investigated. Table 9 can be used to identify the stability-and-change patterns in the countries. As noted previously, Belgium, Finland, France, Greece and (much less so) Italy display the shortest cabinet duration from a comparative perspective. However, in terms of returnability, only Finland, Greece and Italy show a situation of both cabinet and ruling instability.⁵⁰ Belgium and France, on the contrary, have higher rates of returnability: 72% and 75%, respectively. Countries with stable cabinets, such as Sweden and Germany, also have high rates of returnability.

3.5 Conclusion

⁵⁰ It should be noted that the criterion for establishing whether a country is characterised by ruling instability or not is the mean returnability for the total sample. In this light, Israel and Italy are close to the total mean. Therefore, it is necessary to exercise care when attributing the term of ruling instability to a country.

This third chapter presented information on the fundamental dependent variable of the thesis, i.e. government duration. Specifically, in this chapter, the patterns of temporal and national variations in the 21 democracies under investigation were explored, and the quality of government instability was investigated by focusing on a further indicator of ruling instability.

The descriptive findings yielded relevant insights. By examining temporal trajectories, it can be observed that the current decade (2020s) presents the highest level of government instability recorded since the 1940s. The peak of stability was reached during the 1990s and 2000s, the periods in which the median government duration exceeded two and a half years, doubling the median duration recorded in previous decades. After this period of stability, government duration began its decay. Government duration first reduced by half in the passage from the 2000s to the 2010s and then plunged to its lowest level since the 1940s. Such a decline signals that the governments ruling in the contemporary period face the hardest challenges when it comes to their survival in office.

This decline testifies that governments ruling in the present day are challenged by considerable difficulties undermining their durability. Furthermore, considering the multiple crises occurring in the political arena in most democratic countries, such as health crises, e.g. COVID-19 pandemic, and security crises, the recorded instability suggests the possibility of higher levels of instability in the governmental arena in the future.

As for the national variation of government duration, the descriptive statistics show that Belgium, Finland, France, Greece and Italy are among the countries with the shortest-lived cabinets in comparative perspective over the entire period. Conversely, countries such as Luxembourg, Germany, Switzerland and Malta display higher levels of government stability. By investigating whether short government duration is accompanied by discontinuity in the ruling personnel, it can be observed that Finland, Greece and Italy are the countries experiencing both government instability and ruling instability.

The next chapter continues to document the temporal and national trajectories of the main explanatory factors of government stability identified in the theoretical chapter of this thesis.

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Chapter 4

Explanatory Factors of Government Stability: Temporal Trajectories and National Variations

4.1 Introduction

This chapter explores the temporal trajectories and national variations of the explanatory factors identified in Chapter 1. Specifically, it focuses on the three main clusters of the presented variables: government attributes, institutions and context. Regarding the first cluster, this chapter investigates patterns of the type of cabinet, technocratic presence in government, and government innovation. The explored institutional factors are the vote of no-confidence type and coalition agreements. Finally, the last cluster concerns the contextual features of the economy (public debt) and the party system (parliament fragmentation).

This chapter provides comprehensive insight into the explanatory factors of government stability gathered in the multilevel dataset built for this thesis. This exploration has two additional functions. First, it allows a better appreciation of the attributes of the main independent variables, thus helping to verify the proper testing of them in the empirical analyses featured in the next chapter. Second, the large amount of collected information is useful for detecting key trends occurring in relation to all three clusters of the variables analysed.

This chapter is structured as follows: Section 4.2 explores the temporal and national trajectories of government attributes; Section 4.3 examines the institutional variables; Section 4.4 identifies the temporal and national patterns of contextual explanatory factors of government stability; and lastly, Section 4.5 concludes the chapter.

4.2 Government attributes

This section explores temporal and national trajectories of government attributes, focussing on cabinet types, technocratic presence, and government innovation. While the configuration of cabinets is among the most important features the literature look at when dealing with government stability, technocratic presence and government innovation has

been deemed as two instances of critical transformations occurring in the governmental arena in several countries, e.g. Italy (Cotta and Isernia 1996). Political systems in which the partyness of governments (Katz 1987) was evident and taken for granted are in fact witnessing changing patterns of government formation that are influencing government survival.

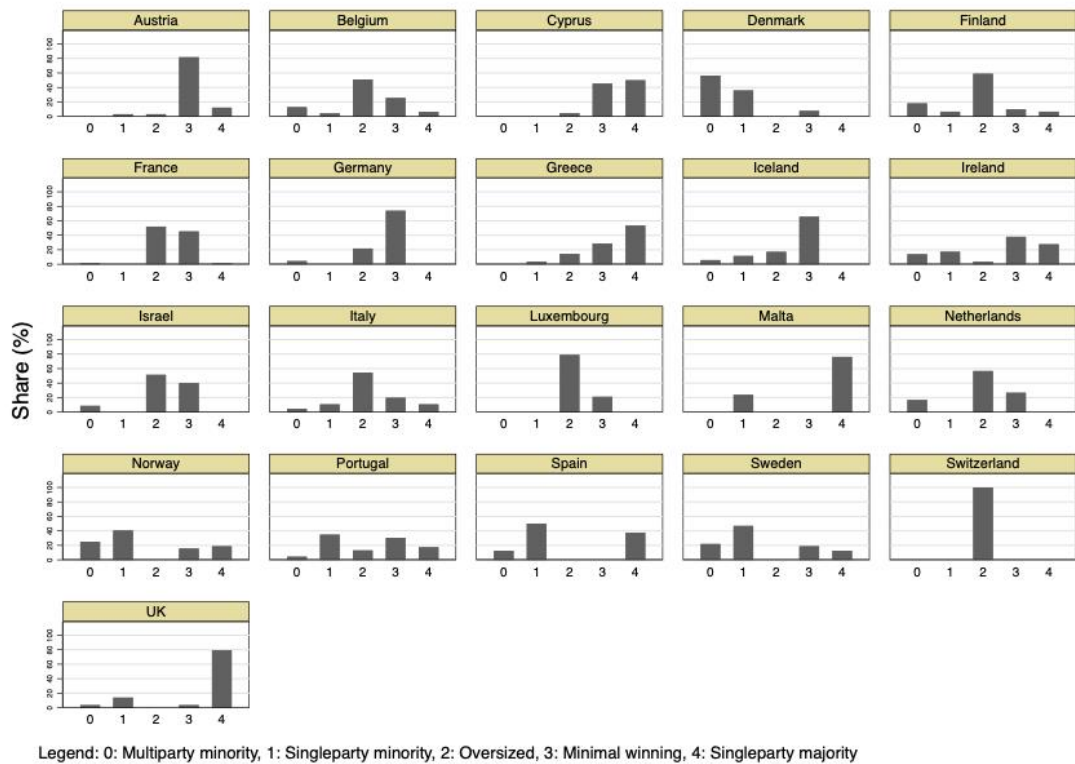
Table 10 - Type of cabinet in 21 democracies (1945-2021)

Type of cabinet	Number of cabinets	%
Multiparty minority	77	10.69
Singleparty minority	91	12.64
Oversized coalition	231	32.08
Minimal winning coalition	209	29.03
Singleparty majority	112	15.56
Total	720	100

Source: Author.

First, the cabinet types should be analysed. As shown in Table 10, oversized coalitions is the most frequent cabinet type: 32% of cabinets in the 21 countries considered from 1945 to 2021 are oversized coalitions. Moreover, the minimal winning formula is at a close percentage of 29%, which testifies that governments are frequently coalitions that include either unnecessary parties (oversized coalitions) or coalition partners required to hold the majority in terms of parliamentary seats (minimal winning coalitions). The single-party majority configurations – the key feature of Westminster models of democracy (Lijphart 1999) – comprise approximately 16% of the sample. This cabinet type is less frequent among minority setups. If considered jointly, multiparty and single-party minority governments comprise 23% of cabinets in the dataset. Thus, despite being considered the most durable ruling solution (Dodd 1976), single-party majority governments are the least frequent cabinet type when it comes to government formation.

Figure 11 - National variation of the type of cabinet in 21 democracies (1945-2021)

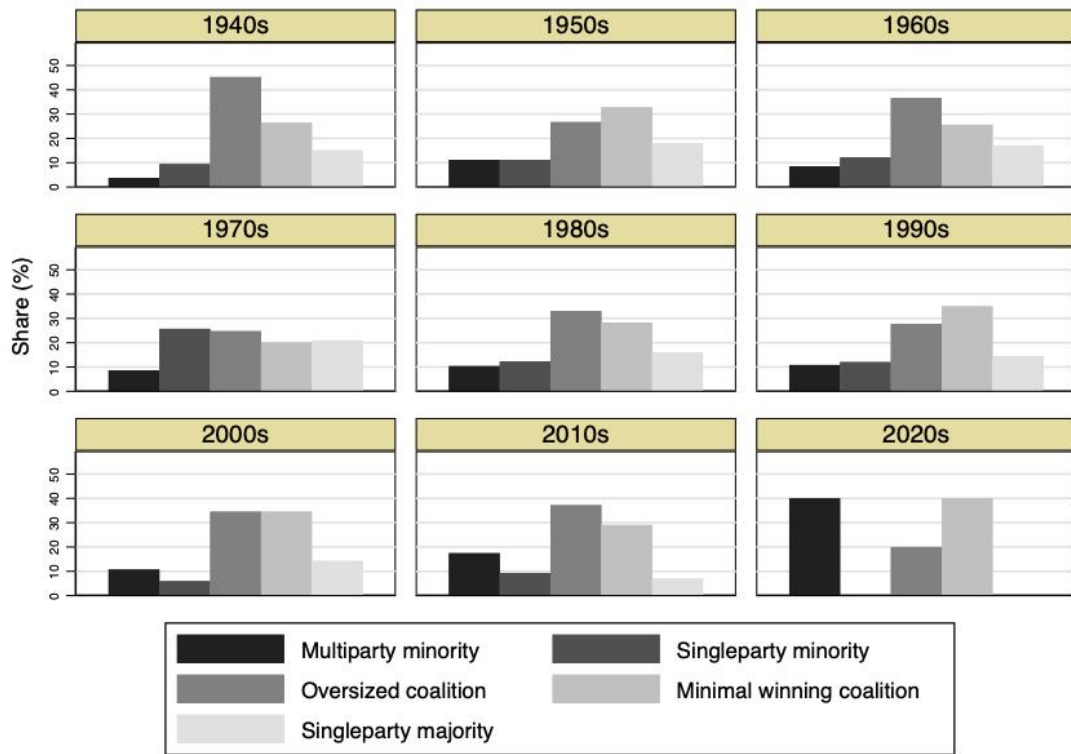


Source: Author.

To analyse this phenomenon, Figure 11 illustrates the share of cabinet types by country. Oversized coalitions are the most frequent ruling configurations in Belgium, Finland, Italy, Luxembourg, Switzerland, the Netherlands, France and Israel. On the other hand, minimal winning coalitions are widespread in Germany and Austria, two countries that are known for the stability of their governments (Saalfeld 2000) and the formation of tight coalitions (Müller 2000). Single-party majority cabinets are mostly recurrent in the political systems characterised by bipartyism: Figure 11 shows that the single-party majority cabinets are often recorded in the United Kingdom and Malta, which can be the consequence of political competition revolving around the dialectic between their Conservative and Labour parties. Finally, minority governments are peculiar to two Scandinavian countries: Denmark and Norway. Multiparty minority governments are more frequent in Denmark, whereas single-party minority governments are typical for Norway. As argued by several scholars (e.g. Strøm 1990), the recurrent formation of minority cabinets in these countries is the result of negative parliamentarism, i.e. the

absence of the investiture vote, facilitating the establishment of cabinets that do not have to rely on a parliamentary majority to take office.

Figure 12 - Temporal variation of the type of cabinet in 21 democracies (1945-2021)

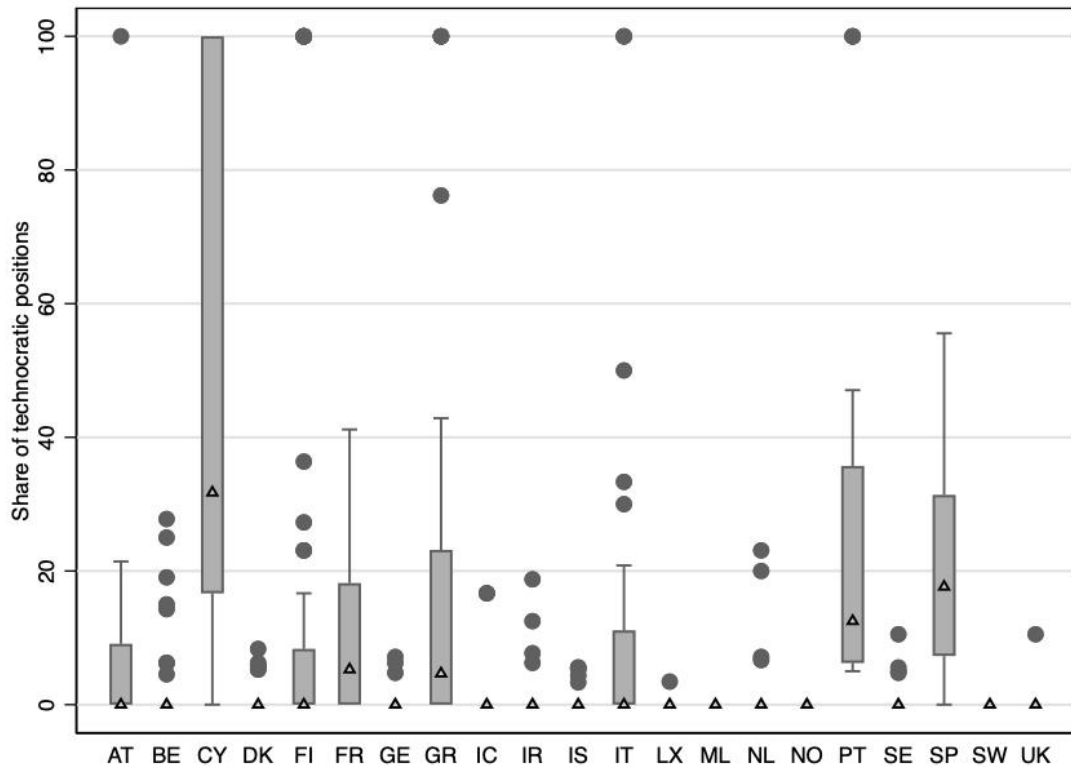


Source: Author.

Next, the temporal trends of the different ruling configurations are explored. Figure 12 illustrates the trajectories in the coalition types of the 21 investigated democracies. In the first decade (1940s), the most frequent outcome of government formation was an oversized coalition. This is also confirmed in three more decades: the 1960s, 1980s and 2010s. On the other hand, minimal winning coalitions were frequently adopted in the 1950s and 1990s. Overall, these two cabinet types have always been detectable and deemed feasible by political parties during bargaining. Quite surprisingly, minority governments are not marginal as they in particular frequently formed during the 1970s. Singleparty majority struggled to form over the decades. In particular, the last decades witnessed the marginality of such cabinet types: in the current period (the 2020s), the share of single-party majority governments in the 21 democracies under enquiry is 0%. This observation signals the increased complexity of political and party systems. However, examining the share of single-party minority governments, Figure 12 shows

that parties are still able to form single-party governments, yet they fail to achieve a parliamentary majority.

Figure 13 - National variation of technocratic share in 21 democracies (1945-2021)



Source: Author.

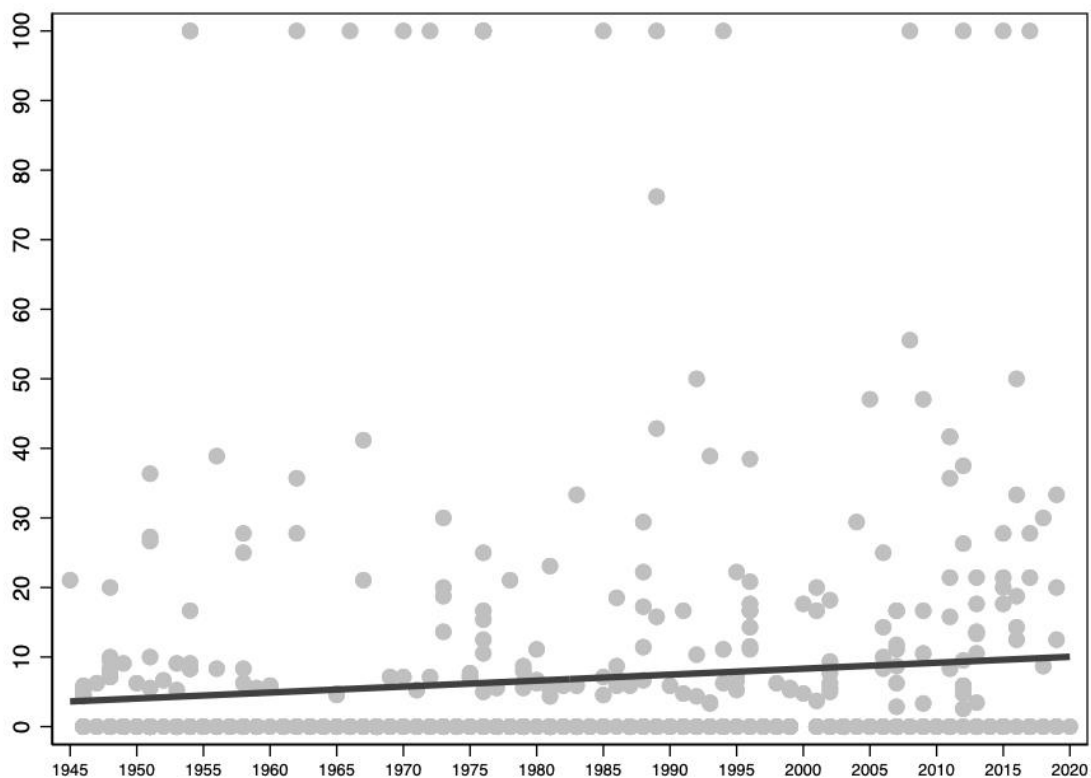
Figure 13 documents the national differences related to the second variable of the government attributes' cluster, namely, the share of technocratic positions in the government. Figure 13 shows that technocratic presence is pervasive in Cyprus (it has the highest median value, displayed by the triangle), Greece, France, Italy, Portugal and Spain. All these countries, except France, experienced the formation of full-technocratic cabinets. Moreover, less technocratic countries also experienced the formation of a full-technocratic cabinet, i.e. the Bierlein cabinet in Austria.

However, the peculiarities of certain countries deserve careful attention. While technocratic presence in Cyprus, Portugal and Greece has been mostly concentrated around a specific period of these countries' democratic experience, Italian government partyyness has been declining for the past three decades (Verzichelli and Cotta 2018;

Improta 2022). Almost 10 years after the formation of the technocratic cabinet guided by Mario Monti, the President of the Republic once again entrusted a technocratic figure, Mario Draghi, to lead the cabinet. Therefore, Italy confirms its place as a promised land of not only populism but also technocracy (Piccolino and Puleo 2021). From a comparative perspective, Italy has the highest shares of technocratic government appointments (Cotta 2018), both in the core executive positions (Strøm 2000) and prime ministerial posts, with five technocratic heads serving from 1992 to 2021 (Improta 2022).

The gradual reduction of the partyness of government is a sign of a decline in partisan presence and of a mounting complexity when it comes to dealing with the responsibility–responsiveness dilemma examined by Peter Mair (2009, 2013). Contemporary parties are confronted with challenges and lose membership (Van Biezen, Mair and Poguntke 2012), while the feeling of distrust among their members is growing (Bergman et al. 2020).

Figure 14 - Temporal variation of technocratic share in 21 democracies

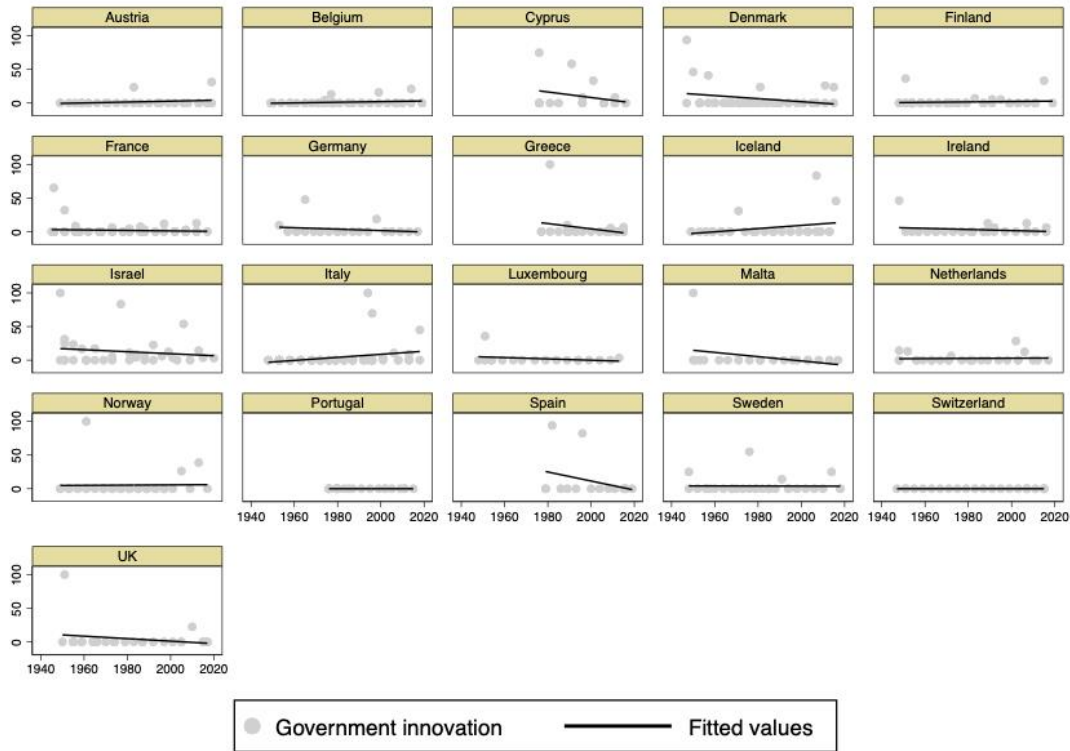


Source: Author.

Figure 14 shows the temporal evolution of the share of technocratic positions. Despite being a phenomenon that characterised the entire considered timespan, the number of technocratic ministers in democratic cabinets is increasing. For instance, in Italy, the formation of technocratic governments rekindled the discussion on the role of technocracy (Improta 2022). Verzichelli and Cotta (2018: 78) argued that the formation of the Monti technocratic government in 2011 stood as the most extreme case of party abdication, signalling the ‘bad health’ of Italian parties in exerting their control over cabinet posts. Monti and his ministers benefitted from high policy autonomy. In this light, scholars are concerned about ‘this palpable sign of weakness of the political system [that] says a lot about the difficult state of Italian parties, twenty years after the crisis of the 1990s’ (Verzichelli and Cotta 2018: 78). After a brief interlude of partisan cabinets, Italy quickly returned to the hands of technocratic figures, confirming that the weakness of parties has been a structural problem of the Italian political system (Improta 2022).

From a comparative perspective, Italian technocratic patterns of ministerial recruitment differ from those of other European countries. In France, the parties managed to preserve their centrality in government formation. Notably, despite the increasing levels of disaffection towards political parties, the French party government remained centre-stage (Bruyère and Gaxie 2018). Conversely, Spain and Portugal recorded high shares of technocratic involvement, similar to Italy. The technocratic presence is a peculiar feature of Portuguese democracy, grounded in the process of late democratisation of the country (Costa Pinto and Tavares de Almeida 2018). As for Spain, Spanish patterns of technocratic recruitment are the outcome of prime ministerial strategic efforts, envisaging the risks of defection from the government and emphasising personal loyalty (Rodríguez Teruel and Jerez Mir 2018). Along these lines, Spanish prime ministers strived to source ministers from outside the parliamentary party.

Figure 15 - Government innovation in 21 democracies (1945-2021)



Source: Author.

Finally, Figure 15 illustrates the temporal and national evolution of government innovation — a relevant government attribute that contributes to reshaping the traditional features of cabinet politics in the countries investigated. Figure 15 shows that Iceland and Italy experienced a sensible increase in government innovation. The other countries, such as Sweden, Portugal, Norway, the Netherlands and Switzerland, on the contrary, displayed the trend of stability in terms of their ruling actors. Slight decreases are recordable in the United Kingdom, Israel and Denmark. Interestingly, government innovation is a declining phenomenon in three South European countries: Spain, Cyprus and Malta. The traceable reason explaining such a decline is the bipolar competition between mainstream parties in these countries, in which electoral contests mainly revolve around conservatives and centre-right forces and social democrats and labour formations.

4.3 Institutions and rules

Institutional factors of government stability have been attracting renewed attention in recent years (e.g. Hazan and Rasch 2022). A significant variable considered among these

institutional factors is the vote of no-confidence, particularly the constructive variant. In parliamentary democracies, the possibility of terminating a cabinet as a result of a vote of no-confidence presented by the legislature prevents governmental public policies from escaping legislature preferences (Hazan and Rasch 2022). In fact, in cases of divergence in public policies, the legislature can dissolve the cabinet by voting a motion of no-confidence (Huber 1996; Sieberer 2015). As discussed in Chapter 2, there are different forms of vote of no-confidence, which vary according to their degrees of permissiveness and restrictiveness (Lento and Hazan 2022).

The constructive vote of no-confidence constitutes the pivotal element of the rationalisation processes of parliamentarism, standing as the most restrictive motion of no-confidence. The systems that adopted this instrument within their institutional setups primarily pursued government stability (Rubabshi-Shitrit and Hasson 2022). The constructive vote of no-confidence is meant to produce a boost in government stability: the legislature cannot terminate a cabinet via the motion of no-confidence if it does not approve a confidence vote towards another cabinet that is to take over. In this light, government crises are reduced in terms of their frequency and duration as negotiations among parliamentary parties are visible because crises are handled in the legislative branch. Thus, the constructive vote of no-confidence has two restrictive requirements: it requires both the absolute majority and the agreement on a new government replacing the terminated one.

Table 11 - The constructive vote of no-confidence: adoption year and regulation

Country	Adoption year	Regulation
Germany	1949	Artt. 67-68, Grundgesetz
Spain	1978	Art. 113, Constitución Española
Hungary	1989	Art. 39, Magyarország Alkotmány
Slovenia	1991	Artt. 116-117, Ustava Republike Slovenije
Poland	1992	Art. 66 Mała Konstytucja
Belgium	1994	Art. 96, Constitution Belge
Israel	2001	Art. 28b, Basic Law: The Government (חוק יסודי: הממשלה)

Source: Adapted from Improta (2022)

Despite the potential benefits of adopting the constructive vote, very few countries have introduced this instrument in their constitutions and basic laws (Table 11). The first European country that adopted the constructive vote was Germany, which introduced the

konstruktives Mißtrauensvotum in the 1949 Basic Law. The reasons underpinning this institutional amendment were grounded in the intention of the *Parlamentarischer Rat* – the Council that elaborated the *Grundgesetz* – to stabilise the governments considering the recurrent turnover during the Weimar Republic (Helms 1998; Saalfeld 2000; Hazan 2014; Rubabshi-Shitrit 2020). German lawmakers thus focused on the need to respond to the government crises in the Weimar period.

Table 12 - Type of vote of no-confidence in 20 countries

Country	Type of No-Confidence Vote
Austria	Regular
Belgium	Constructive (since 1994)
Cyprus	Regular
Denmark	Regular
Finland	Regular
France	Regular
Germany	Constructive
Greece	Absolute majority
Iceland	Regular
Ireland	Regular
Israel	Constructive (since 2001)
Italy	Regular
Luxembourg	Regular
Malta	Regular
Netherlands	Regular
Norway	Regular
Portugal	Absolute majority
Spain	Constructive
Sweden	Absolute majority (since 1970)
UK	Regular

Source: Adapted from Improta (2022); Note: Switzerland excluded due to ex-ante investiture procedure

The German experience functioned as a benchmark for subsequent institutional amendments aimed at introducing the constructive motion. In 1978, Spain introduced the *moción de censura* to relax the increased conflicts within society and politics mounting shortly after the fall of Franco’s regime. Such heated conflicts affected interparty relationships, favouring the unpredictability of ruling actors’ behaviours. The same reasoning applies to Belgium, which adopted the *motion de méfiance* in 1994

(Uyttendaele 2014). The need for stabilising the linguistic, social and cultural conflicts in Belgian society was centre-stage in designing the 1993 constitutional reform (Lijphart 2004).

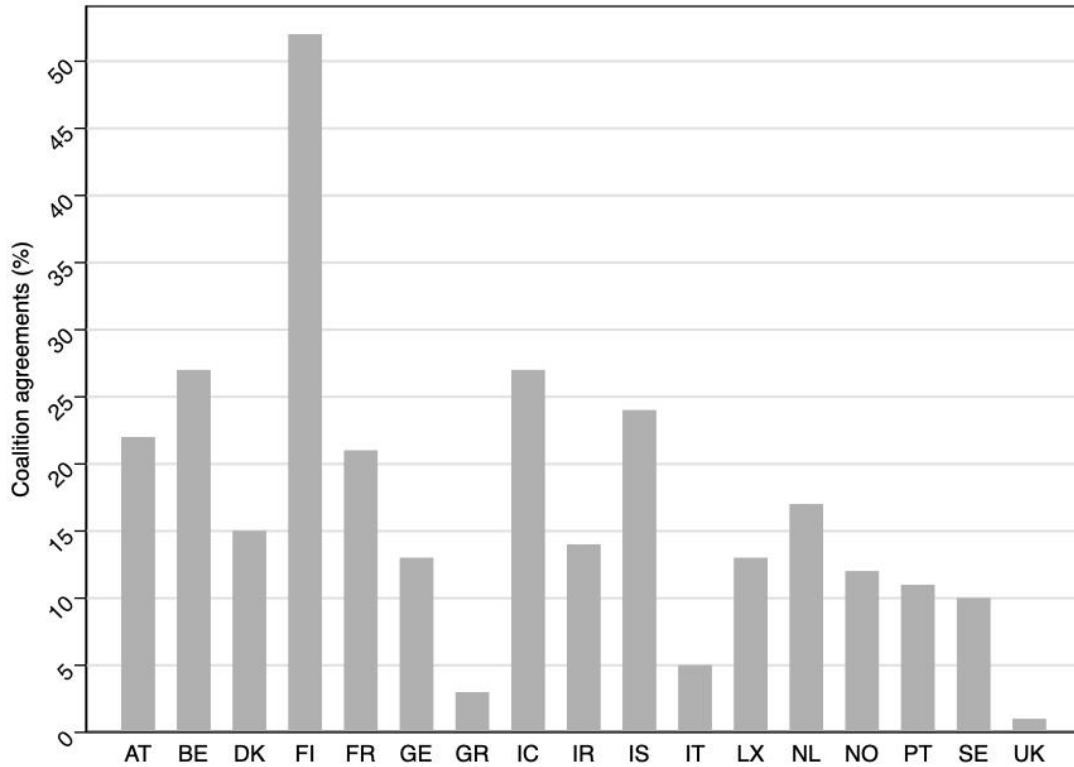
However, as shown in Table 12, the number of countries adopting the constructive vote is limited. Apart from the three European countries mentioned above, the constructive vote was adopted by Hungary, Slovenia, Poland and Israel. Timewise, Belgium and Israel are the two most recent cases of democracies introducing this type of vote of no-confidence. These multiparty democracies, characterised by divided societies (Lijphart 1999), introduced a constructive vote to ease their government stability and limit conflicts (Lento and Hazan 2022).

Investigating the adoption of other types of vote of no-confidence, most of the countries regulated the confidence relationship between their parliaments and governments in more permissive ways. For instance, regular motion mostly requires the presence of a simple majority in the legislature to terminate a cabinet and, in some cases, the absolute majority. Greece, Portugal and Sweden (starting from 1970) were, therefore, in an intermediate position between permissive motion (regular) and restrictive motion (constructive).

However, it should be noted that the constructive vote of no-confidence affects not only government stability (Lupia and Strøm 1995; Lijphart 2004) but also parliament–government relationships. Specifically, Tuttnauer and Hazan (2019) emphasised that a cabinet realising the decreased likelihood of being removed from office by the legislature can be incentivised to act with more freedom facing parliamentary opposition. On the other hand, coalition partners – especially those of a small size – should reduce blackmail potential (Sartori 1976).

Another institutional factor that prompted considerable scholarly interest is the presence of a coalition agreement, known as the ‘keys to togetherness’ (Strøm and Müller 2007). As institutional setups of democratic systems allow for different discretion over the management of cabinet dissolutions, the introduction of written agreements between coalition partners play a key role in parliamentary democracies. Strøm and Müller (2007), and more recently Chiru (2015) and Krauss (2018), famously demonstrated that the formulation of a coalition agreement between ruling parties affect government longevity, determining a less conflictual governmental experience. To grasp variations on this matter, I focused on the share of coalition agreements in 21 democracies (Figure 16).

Figure 16 - Coalition agreements in 21 democracies (1945-2021)



Source: Author. Note: Cyprus, Malta, Spain, and Switzerland not visible as they recorded a share of coalition agreements of 0%.

The multifaceted cooperation required in coalition governance – especially in multiparty setups – has prompted several conflicts leading to cabinet early termination. To prevent such premature collapses, governments around Europe equipped themselves with potential conflict management tools. Coalition agreements are the most utilised. The need for coalition agreements arises to secure stability when it comes to cooperation and coordination between governing parties that inevitably have different goals, in terms of policy, office, and votes. Figure 16 shows that Finland, Belgium, Iceland, Israel, Austria, and France record the highest scores of coalition agreement establishment, whereas UK, Italy and Greece have a lower score (see note for countries recording share of 0%).

The country scores shown in Figure 16 substantially reflect the institutional architecture, especially concerning the electoral system, and the style of coalition governance of the countries. In this regard, the share of coalition agreements in Finland is more than 50%, standing as the highest score in a comparative perspective by far. The

Finnish case is informative as the coalition governments in this country are generally formed by oversized majorities (see Figure 11). Therefore, to prevent intracoalitional conflicts, ruling parties ‘agree to disagree’ (Bowler, Brauninger, Debus, and Indridason 2016) recurring to coalition agreements as mechanisms of dispute resolutions.

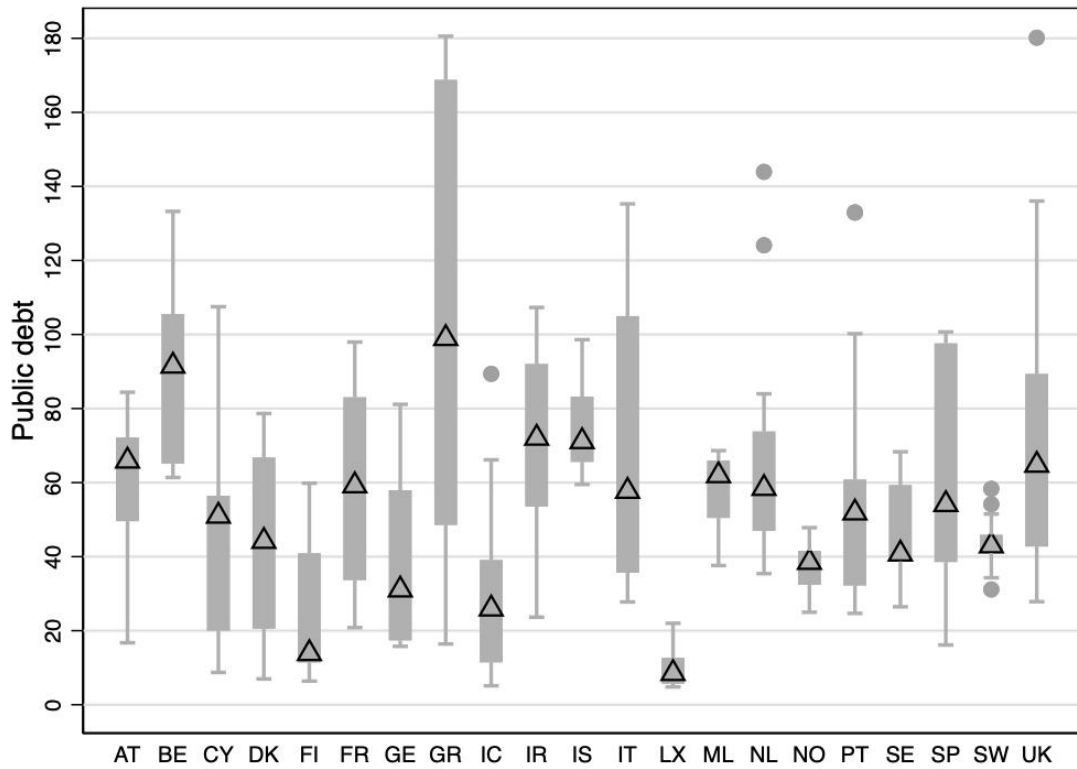
Conversely, political systems in which oversized coalitions are not the usual business the share of coalition agreements is negligible. This is the case of Malta, Spain, and the United Kingdom: systems where single-party governments are the rule. Finally, an interesting case is that of Switzerland. Following a ‘magic formula’ establishing an agreed ruling style based on consensus, collegial government in Switzerland functions as an effective instrument with no need to adopt written coalition agreements between the parties forming the cabinet.

4.4 Context

Governments across the globe are inevitably confronted with multiple challenges from the outside environment. In some periods, governments can be bombarded with several exogenous shocks related to domestic and international economic conditions (Warwick 1992). From a critical event perspective, governments can break down for different reasons, such as scandals and wars, and, most frequently, due to economic downturns (Robertson 1983). Economic turbulence can occur during the government’s lifetime without raising any red flags during the formation stage. In particular, Damgaard (2008) notes that economic factors can change the ruling actors’ strategic incentives to schedule an early election to avoid the risk of being punished in the ballot box as a consequence of their poor economic performance.

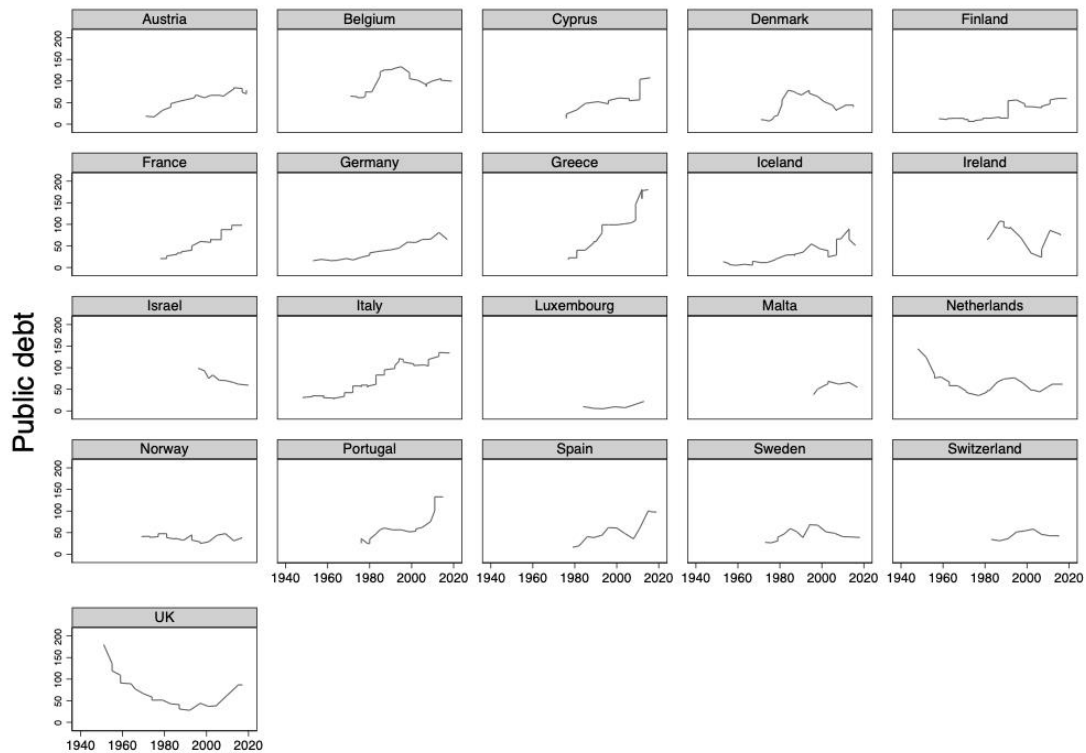
In recent years, public debt has been among the most critical factors affecting government survival and performance; the subsequent economic turmoil can aggravate conflicts among coalition partners, leading to a premature termination of the cabinet (Lupia and Strøm 1995). This phenomenon is particularly evident in debtor countries, such as Southern European countries, where the impact of European sovereign debt provoked considerable electoral uncertainty (Bosco and Verney 2012).

Figure 17 - National variation of public debt in 21 democracies (1945-2021)



Source: Author.

Figure 18 - Temporal variation of public debt in 21 democracies (1945-2021)

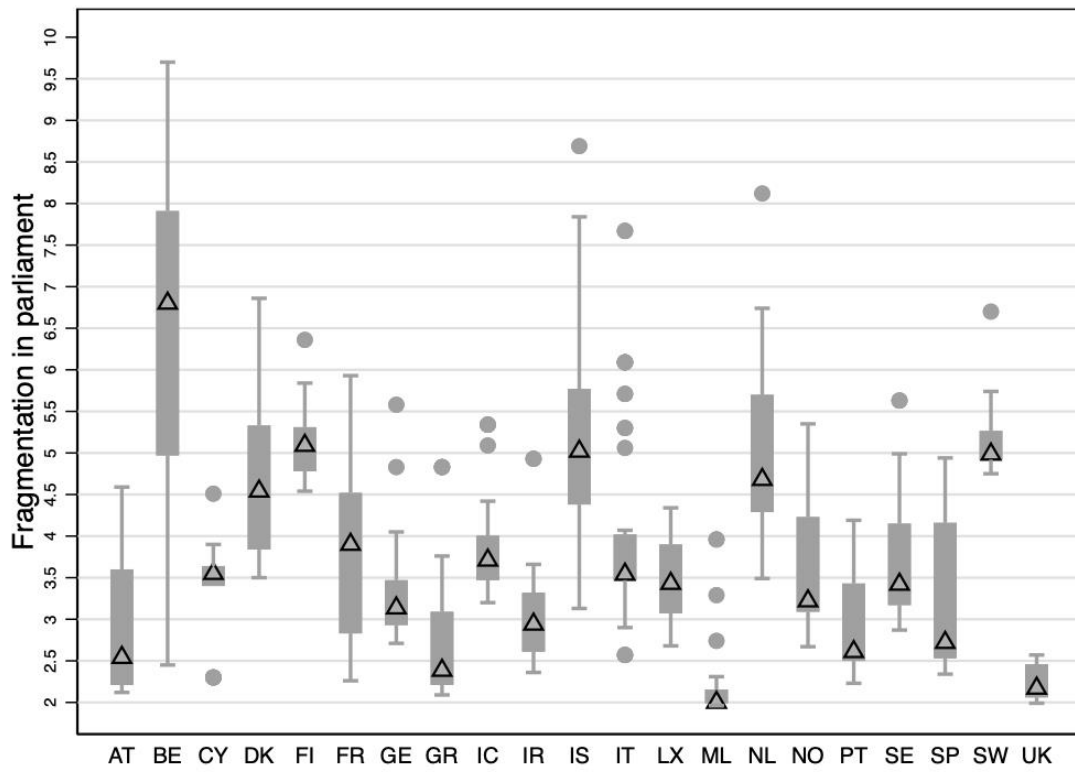


Source: Author.

Figures 17 and 18 reflect the geographical concentration of increased levels of public debt. As observed in Figure 18, Italy, Portugal, Spain, Cyprus and, most of all, Greece had the highest level of debt in their democratic history. Moreover, the region experienced the rise of new populist parties and the emergence of new lines of conflict revolving around the dissatisfaction with the financial and political establishment (Morlino and Raniolo 2017). This turbulent environment is fertile ground for uncharted government types and frequent snap elections, increasing the risks of government instability (Bosco and Verney 2016).

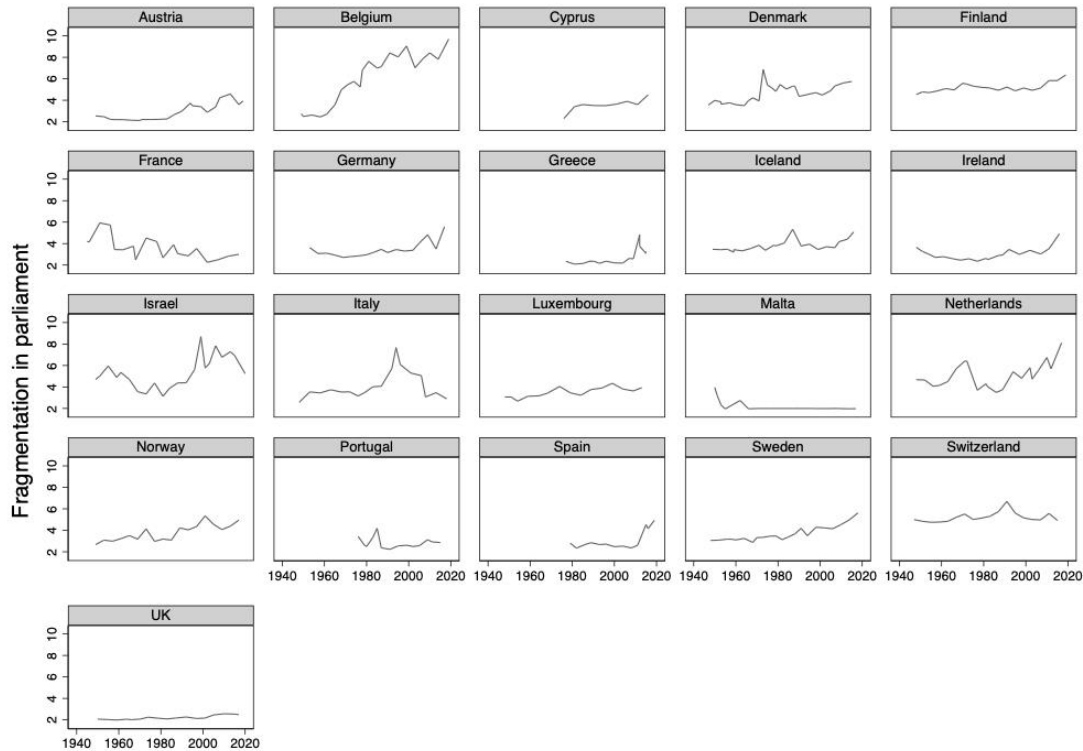
Nevertheless, high public debt is not limited to the countries of southern Europe only. For example, there were increased levels of debt in France and the United Kingdom, which were not prompted by the intervention of European and supranational institutions, the so-called European Troika (formed by the European Commission, International Monetary Fund and European Central Bank), as in the case of Greece.

Figure 19 - National variation of fragmentation in parliament in 21 democracies (1945-2021)



Source: Author.

Figure 20 - Temporal variation of fragmentation in parliament in 21 democracies (1945-2021)



Source: Author.

The other contextual factor included in the explanatory framework of this thesis is the parliamentary context. As discussed in Chapter 1, the parliamentary setup of a given legislature is critical when it comes to government stability. The number of parties emerging from electoral contests can influence governmental policy-making and ultimately affect the durability of governments. The literature has typically focused on the increased complexity brought by a large number of parliamentary parties as they contribute to the uncertainty and unpredictability of the bargaining environment (De Winter and Dumont 2008).

Figures 19 and 20 show the temporal and national variation of fragmentation. In particular, Figure 20 highlights the growing trend of parliamentary fragmentation, or the effective number of parliamentary parties (Laakso and Taagepera 1979), in several countries, particularly in the so-called Low Countries, such as Belgium and the Netherlands, that have a highly fragmented party system. Furthermore, all Scandinavian

countries are moving towards increased fragmentation, whereas Greece and Israel are among the few countries that are moving towards a lower level of fragmentation.

4.5 Conclusion

This chapter presented information on the main independent variables of the thesis, differentiating between government attributes, institutions and context. The temporal and national variations of these factors delineated important trajectories, which are summarised in Table 13.

Table 13 - Summary of main explanatory factors' trajectories

Country	Government attributes			Institutions			Context	
	Type of cabinet	Technocratic presence	Government innovation	Vote of no confidence	Coalition agreements	Public debt	Fragmentation in parliament	
Austria	Power diffusion	Frequent	Limited	Permissive	Frequent	High	Low	
Belgium	Power diffusion	Limited	Limited	Restrictive	Frequent	High	High	
Cyprus	Power concentration	Frequent	Frequent	Permissive	Absent	Low	Low	
Denmark	Power diffusion	Limited	Limited	Permissive	Frequent	Low	High	
Finland	Power diffusion	Frequent	Limited	Permissive	Frequent	Low	High	
France	Power diffusion	Frequent	Limited	Permissive	Frequent	High	High	
Germany	Power diffusion	Limited	Limited	Restrictive	Frequent	Low	Low	
Greece	Power concentration	Frequent	Frequent	Hybrid	Limited	High	Low	
Iceland	Power diffusion	Limited	Frequent	Permissive	Frequent	Low	High	
Ireland	Power diffusion	Limited	Limited	Permissive	Frequent	High	Low	
Israel	Power diffusion	Limited	Frequent	Restrictive	Frequent	High	High	
Italy	Power diffusion	Frequent	Limited	Permissive	Limited	High	High	
Luxembourg	Power diffusion	Limited	Limited	Permissive	Frequent	Low	Low	
Malta	Power concentration	Absent	Limited	Permissive	Absent	High	Low	
Netherlands	Power diffusion	Limited	Limited	Permissive	Frequent	High	High	
Norway	Power concentration	Absent	Frequent	Permissive	Frequent	Low	Low	
Portugal	Power concentration	Frequent	Limited	Permissive	Frequent	High	Low	
Spain	Power concentration	Frequent	Limited	Hybrid	Frequent	High	Low	
Sweden	Power concentration	Frequent	Frequent	Restrictive	Absent	Low	Low	
Switzerland	Power concentration	Limited	Limited	Hybrid	Frequent	High	Low	
UK	Power diffusion	Absent	Absent	Permissive	Absent	Low	High	
	Power concentration	Limited	Frequent	Permissive	Limited	High	Low	

Source: Author.

Starting with the cabinet type, it can be observed that the most diffused trend is the diffusion of power in the executive cabinet, which means that most countries display patterns of coalition formation, although the share of countries with predominant patterns of power concentration is not negligible. On the other hand, technocratic presence is scattered across the countries, predominating in some (Cyprus, Italy and Greece) and totally absent in others, as in the cases of Malta and Switzerland, where the portfolio allocation is dominated by parties. Concerning government innovation, the pattern is scattered as well: government innovation is scarce for 12 out of the 21 countries and frequent for 8 out of 21 countries. As the result of a peculiar ruling configuration, i.e. the magic formula, Swiss cabinets record absence of government innovation.

Moreover, in terms of institutional factors, the widespread pattern of the vote of no-confidence is the presence of permissive rules. The overwhelming majority of countries require a regular vote of no-confidence for terminating a cabinet, while Germany, Belgium, Israel and Spain require a constructive component of the motion of no-confidence. Other countries, such as Portugal, Greece and Sweden, take an intermediate position, requiring an absolute majority. Moreover, most countries have cabinets formed under coalition agreements ruling. Coalition agreement presence is pervasive. Governments around Europe equipped themselves with potential conflict management tools, among which coalition agreements are the most employed. The need for coalition agreements arises to secure stability when it comes to cooperation and coordination between governing parties that may have divergent incentives. The presence of coalition agreements is mostly recorded in Finland, Belgium, Iceland, Israel, Austria, and France. Such countries record the highest scores of coalition agreement establishment, whereas UK, Italy and Greece have a lower score (see note for countries recording share of 0%).

Finally, the contextual factors in both the economy and parliamentary setups present considerable national variation. Belgium, France, Israel and Italy are the countries recording both high public debt and high parliamentary fragmentation, thus demonstrating a remarkable degree of complexity in both economic and parliamentary contexts. In particular, public debt has been among the most critical factors affecting government survival and performance. This phenomenon is particularly evident in debtor countries, such as Southern European countries (e.g. Italy), where the impact of European sovereign debt provoked considerable electoral uncertainty (Bosco and Verney 2012).

Having investigated the trajectories of the dependent variable in Chapter 3 and the main independent variables in this chapter, the next chapter presents the results of the empirical analyses.

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Chapter 5

Empirical Analysis: Explaining Government Stability

5.1 Introduction

This chapter is devoted to analysing the explanatory factors of government stability. Based on the theoretical framework presented in Chapter 1 and the operationalisation presented in the methodological section of the thesis, I test several hypotheses concerning the factors that can affect government stability. Specifically, the first cluster of the considered variables is government attributes. These factors are widely recognised as distinctive features influencing government stability; thus, in this thesis, I further validate their role by extending the national and temporal frameworks of previous analyses and providing more fine-grained operationalisation of classic indicators. Additionally, I include unexplored factors related to government attributes, such as technocratic presence. Second, I test the impact of institutional characteristics and rules, focusing in detail on the vote of no confidence and instruments of conflict management within governing coalitions. Finally, I verify the effect of contextual features, both in terms of economic conditions and complexity in parliament as the result of elections.

Government stability is understood as a function of three main clusters. In addition to the novel testing of independent variables, in this thesis, I focus on informative cabinet terminations, such as discretionary collapses experienced by governments, i.e. early elections and replacements, implementing a censoring technique for technical terminations, which can be interpreted as ‘peaceful’ terminations unrelated to actors’ strategies. In this vein, I consider government duration in days as the main dependent variable of the analysis (the analysis time under investigation in the survival analysis) and discretionary terminations as failure events.

This chapter is structured as follows: the following section presents the results of the performed survival analysis, focusing on the three main investigated clusters; the third section illustrates the results derived from robustness tests and diagnostics; and the fourth part focuses on the discussion of the results of the explanatory analysis. The chapter ends with a conclusion.

5.2 Analysis

The results of the Cox proportional hazards regression (Cox 1972) model are presented in Table 14. To include all relevant explanatory factors, the number of observations related to the fundamental unit of analysis in this thesis (governments) is decreased to 412⁵¹. The grouping variable of the analysis is set at the country-level ($N = 21$), and the number of failures is 190. As anticipated in the methodological section of the thesis, the models are specified according to the shared frailties configuration to properly control for unobserved country-based heterogeneity.

⁵¹ The omitted observations mainly concern the first governments included in the dataset (typically those formed after 1945), for which data availability is limited. Inclusion of economic variables dramatically reduces the number of governments analysed as the reliable and official data sources on such indicators provide a satisfactory amount of data only starting from the 1960s. In this regard, it should be noted that, originally, the unemployment rate was collected to test the impact of job insecurity on government stability. However, since the number of observations was severely affected by the inclusion of this variable, I opted to exclude it from the analyses and focus on other economic conditions.

Table 14 - Cox survival analysis with shared frailties

	Model		
	Discretionary terminations		
<i>Main independent variables</i>	Hazard ratio	P-value	Standard err.
Technocratic share	1.008	0.142	0.005
Type of cabinet (ref: single-party majority)			
Multi-party minority	4.675**	0.002	2.335
Single-party minority	2.909*	0.019	1.327
Oversized coalitions	4.241**	0.002	1.974
Minimal winning coalitions	4.255***	0.000	1.708
Government innovation	0.995	0.458	0.006
Constructive vote of no-confidence	0.318**	0.009	0.139
Coalition agreement	0.593*	0.013	0.125
Fragmentation in parliament	1.236*	0.038	0.126
Public debt (% GDP)	0.996	0.311	0.003
<i>Controls</i>			
Share of parliamentary seats	0.987	0.390	0.014
Bargaining duration	0.993*	0.019	0.002
Fragmentation in government	1.077	0.505	0.121
Share of demarcation parties	1.002	0.752	0.007
Positive parliamentarism	1.863	0.116	0.737
Electoral system (ref: Proportional)			
Mixed	0.761	0.523	0.325
Majoritarian	0.940	0.910	0.512
Type of democracy (ref: Consensual)			
Hybrid	1.088	0.832	0.435
Westminster	1.878	0.910	0.512
Cabinet ideology (ref: Left)			
Center	1.168	0.494	0.266
Right	0.891	0.591	0.190
Total electoral volatility	0.994	0.666	0.013
Government expenditure (% GDP)	1.015	0.662	0.036
Age of democracy	0.997	0.544	0.003
Year	0.983	0.096	0.009
EU Membership	0.954	0.872	0.276
Akaike information criterion		2004.817	
Bayesian information criterion		2109.364	
Prob > chi2		0.0006	
Group variable		Country	
Log likelihood		-976.40854	
Time at risk		307,684	
N of failures		190	

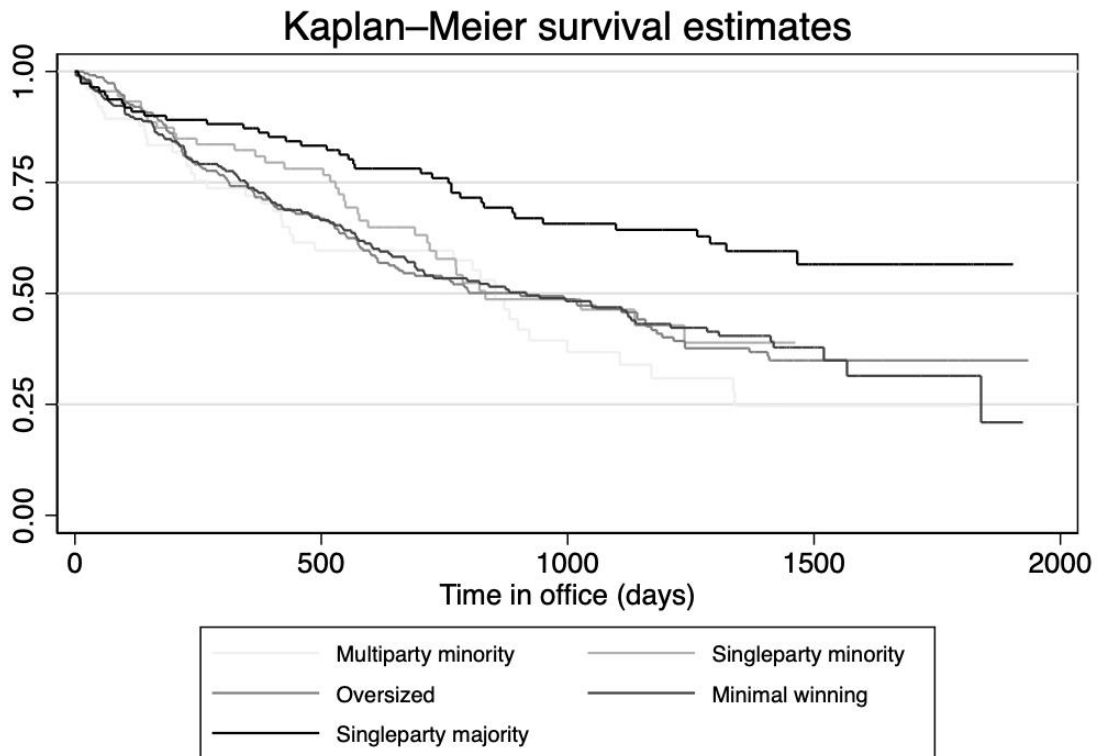
N of governments	412
N of countries	21

Note. Cox regression, gamma shared frailties. Breslow method for ties. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

To begin with, based on Table 14, it is possible to verify the first hypothesis of this study concerning the type of cabinet. I included single-party majority as the reference category in light of the theoretical construction of this index, which develops from the least stable configuration (multi-party minority) to the most stable one (single-party majority), because multi-party minority has two characteristics that are considered destabilizing in the literature: the absence of a solid majority in parliament and the increased transaction costs due to several ruling actors required to negotiate over policies and posts. Regarding the hypotheses, I expected undersized governments (multi-party and single-party minority governments) to be detrimental to government stability and, thus, present a higher associated risk of termination (H1a). The Cox survival analysis confirms this hypothesis as both multi-party minority and, to a lesser extent, single-party minority configurations have a hazard ratio far greater than 1, thus indicating that such types of cabinets increase the risk of experiencing discretionary termination. In particular, the hazard ratio associated with multi-party minority is 4.675 ($p = 0.002$), whereas in the case of single-party minority cabinets, it equals 2.909 ($p = 0.019$). Alongside the undersized governments, I also expected oversized and minimal winning governmental setups to negatively affect government stability and, thus, present a higher associated risk of termination (H1b). The results presented in Table 14 confirm the expected effects. Concerning oversized coalitions, the Cox regression displays an associated hazard ratio of 4.241 ($p = 0.002$), demonstrating that such ruling solutions dramatically increase the risk of termination. A similar coefficient (4.255) emerges when it comes to minimal winning coalitions. Additionally, this type of government plays a more significant role as it displays a p -value of 0.000, thus reaching the highest level of statistical significance. The hazard ratios associated with undersized, oversized and minimal winning governments document that all such ruling configurations have a destabilizing impact on government stability compared to single-party majority cabinets. Equipped with substantial parliamentary majority and lower transaction costs, single-party majority cabinets can ensure greater government stability and reduced risks of termination. This observation confirms the hypothesis (H1c) of this thesis.

Figure 21 presents a graphical representation of the different survival rates associated with the types of cabinet investigated.

Figure 21 - Kaplan-Meier survival estimates of type of cabinet



Source: Author

Based on the Kaplan-Meier curves⁵² displayed in Figure 21, it can be observed that single-party majority governments have higher survival rates across all types of cabinets. To properly test this effect, a log-rank test ($p = 0.0012$) was conducted to examine whether there was a difference between the groups in terms of the distribution of time to event occurrence. Concerning the present data, the log-rank test showed that there is a difference between the groups in terms of the distribution of time until the event occurs as the significance level testified by the p -value was below 5%, which generally constitutes the standard threshold in this test (Efron 1988).

⁵² Kaplan-Meier curves are used to graphically represent the survival rate (Kleinbaum and Klein 2012).

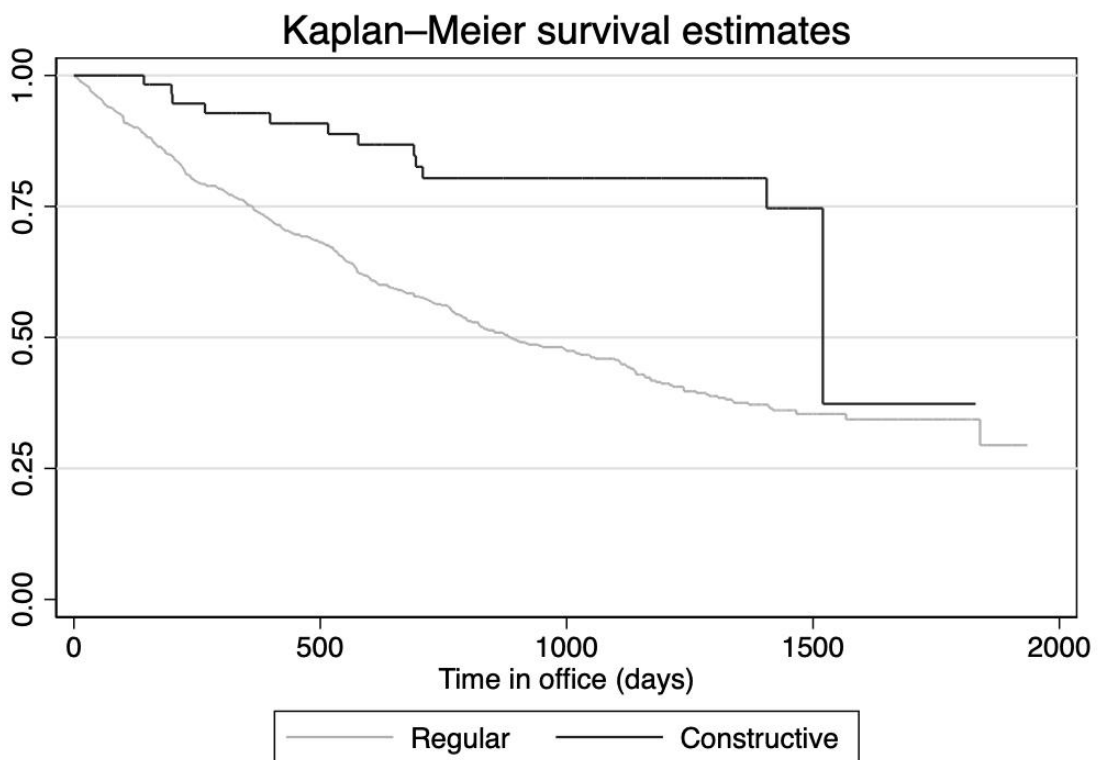
Having verified the hypotheses related to the type of cabinet, I proceeded to examine other factors of the government attributes group. A recent transformation in the governmental arena of European countries (Caramani 2017; Wratil and Pastorella 2018; Alexiadou and Gunaydin 2019; Emanuele, Improta, Marino, and Verzichelli 2022) regards technocratic presence in government, which is a relatively novel setup that has been reshaping and influencing the partyness of governments (Katz 1987). However, technocracy has never been studied in relation to government stability. Drawing upon Emanuele et al. (2022), who interpreted technocratic appointments as a party strategy to dilute responsibility during electorally turbulent times, I expected technocratic presence in government to have a negative impact on government stability as technocrats are confronted with periods of turmoil; thus, their governments should present a higher associated risk of termination (H1d). Cox regressions showed that the share of technocratic positions increased the risk of termination (hazard ratio = 1.008), yet this effect did not display levels of statistical significance ($p = 0.142$). Therefore, H1d cannot be confirmed.

The last explanatory factor related to the considered government attributes is government innovation. I expected a stabilising role of new parties in government, building upon the consideration that government experience for novel parties should be interpreted as a profitable way to demonstrate effectiveness. In addition, as new parties often constitute protest parties (Deschouwer 2008) or challenger parties (De Sio and Lachat 2020), mainstream parties can take advantage of such governmental efforts to advance the normalisation, or institutionalisation, process over these newcomers. Thus, I expected government innovation to positively influence government stability, presenting a lower associated risk of termination (H1e). Although the hazard ratio (0.995) presented in the Cox regression confirmed the expected direction, government innovation did not reach levels of statistical significance ($p = 0.458$). Therefore, in terms of technocratic share, the hypothesis on government innovation cannot be confirmed. Therefore, the survival analysis on the government attributes' explanatory factors revealed that traditional explanations, such as the coalition types, still play a significant role when it comes to government stability, whereas novel factors, such as technocracy and innovation in government, do not have a significant impact on it.

Having verified the effects of government attributes, I then examined institutional factors. First, to investigate the impact of the vote of no confidence, I collected a restrictiveness line, which is an indicator based on permissiveness (Lento and Hazan

2022). Considering the constructive version of the motion of no confidence as the most restrictive and, therefore, assuring more protection against discretionary terminations to governments, I expect the constructive vote of no confidence to play a stabilising role. The Cox regression analysis confirms this hypothesis (H2a), showing that this institutional tool has a lower associated risk of termination as the hazard ratio is 0.318. Furthermore, this effect was confirmed to be statistically significant ($p = 0.009$).

Figure 22 - Kaplan-Meier survival estimates of vote of no-confidence



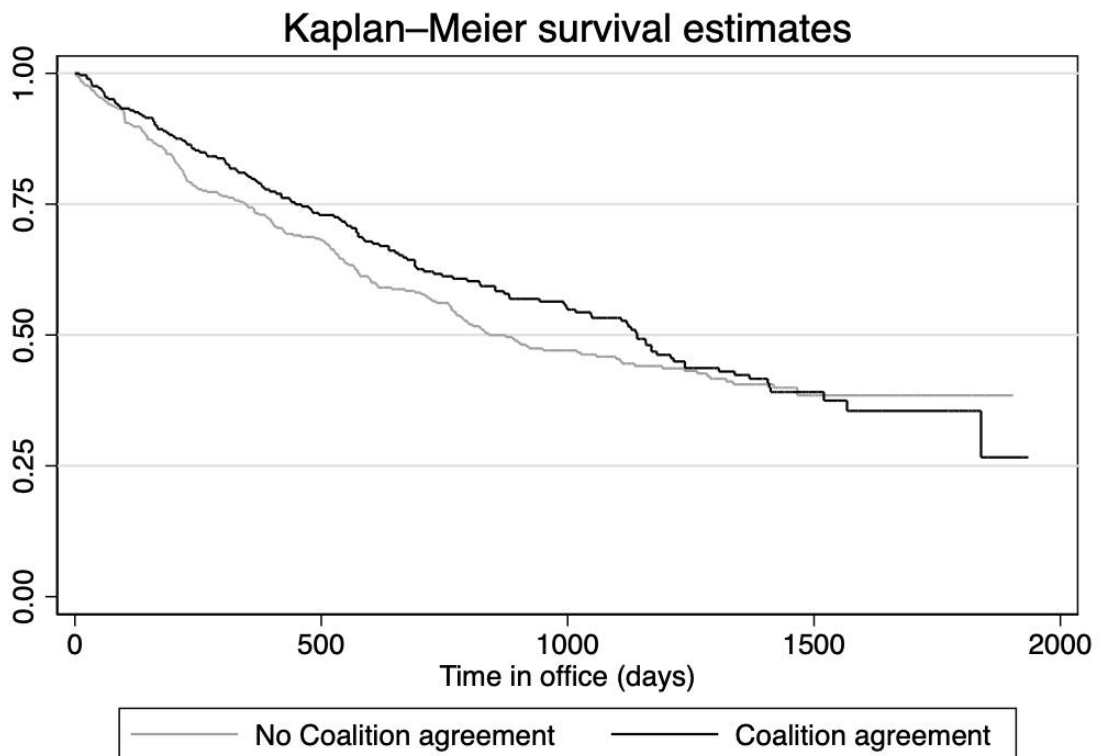
Source: Author

The Kaplan-Meier curves in Figure 22 represent the difference between the constructive vote of no confidence and regular motions when it comes to government survival rates. Specifically, the former has a median survival rate of 1,520 days, measured as days spent in office, whereas the latter has more limited endurance (the median survival rate is 888 days only). Similar to the analysis of cabinet types, I performed a log-rank test to verify whether there was a significant difference between constructive and regular votes in terms of the distribution of time to event occurrence. The log-rank test presented a p -value of 0.000, demonstrating that there was a difference between the two motions in

terms of the mentioned temporal distribution. In particular, the significance level was greatly below 5%, which, as previously indicated, constituted the standard threshold to verify the appropriateness of the log-rank test.

The second institutional factor is the presence of a coalition agreement. Coalition agreements are important tools derived from often intense bargaining between coalition partners over policy programmes and governmental offices. De Winter et al. (2000: 322) refer to coalition agreements as the ‘coalition’s equivalent of the bible’. The hypothesis regarding the role of coalition agreements on government stability is as follows: Being fundamental tools of conflict management, coalition agreements are expected to reduce the risk of discretionary termination (H2b). Based on the results of the Cox regression model, this hypothesis is confirmed as the hazard ratio associated with the presence of a coalition agreement is 0.593. In addition, this effect was statistically significant ($p = 0.013$). As in the case of the constructive vote of no confidence, Figure 23 illustrates the graphic representation based on the Kaplan–Meier curves.

Figure 23 - Kaplan-Meier survival estimates of coalition agreement



Source: Author

Figure 23 demonstrates that governments formed under a coalition agreement have a median survival rate of 1,141 days, whereas governments formed without entering into cooperative arrangements record a median survival rate of merely 840 days. Following the diagnostics performed for cabinet types and votes of no confidence Kaplan–Meier curves, the log-rank test signals significant differences in the two curves ($p = 0.0013$).

After verifying the role of institutional factors, the contextual group of indicators are tested. To begin with, I include public debt as the percentage of the GDP growth rate. The importance of testing this index is twofold. First, it allows us to gauge economic turbulence in a specific political system as an outstanding factor when it comes to supranational institutions' evaluation of government performance (Collignon 2012). Second, this economic indicator has never been tested in relation to government stability, although public debt is often considered a fundamental cause of political turbulence, especially in Europe (Franzese 2000; Geys 2007; Streeck 2014). As presented in the theoretical chapter of the thesis, the hypothesis related to public debt interprets higher shares of debt as being detrimental to government stability; thus, the hazard ratios associated with this factor should signal higher risk of termination (H3a). As the basis of this expectation, I consider public debt as a challenge to effective governance due to the difficult tasks it presents to governments. On the one hand, public debt constrains governments on the responsiveness side (Mair 2009, 2013; see also Lefkofridi and Nezi 2020) as governments may experience difficulties in implementing desired policy programmes and, most importantly, fulfilling the promises made during their election campaigns (Mansbridge 2003). On the other hand, governments also suffer from reduced reliability from supranational institutions, which can interpret higher debt levels as a lack of compliance with shared rules. The results of the Cox regression, however, do not allow us to confirm the hypothesis, despite public debt being negatively associated (hazard ratio = 0.996) with longer endurance in office ($p = 0.311$).

The second contextual factor investigated was fragmentation within parliament. By using the effective number of parliamentary parties (Laakso and Taagepera 1979), I interpret a higher number of parties as triggers for increased uncertainty and complexity (De Winter and Dumont 2008) that can cause intracoalitional conflicts, potentially leading to early termination. In addition, ruling parties may govern together simply because there are no other viable alternatives, so divergences in preferences are likely to result in blocking governance. Therefore, I expect parliamentary fragmentation to

endanger government stability, thus presenting a higher associated risk of termination (H3b). The Cox regression analysis confirms the expected direction of the effect (hazard ratio = 1.236), and as this effect is statistically significant ($p = 0.038$), hypothesis H3b can be confirmed.

The performed Cox regression considered several additional factors related to government attributes, institutions and rules and context to verify the established findings and to properly gauge the role of the factors included in the explanatory framework of this thesis. Among the controls, only bargaining duration – a key measure for detecting phenomena related to the government formation process – shows statistical significance. The results demonstrate that prolonged bargaining significantly ($p = 0.019^*$) reduces the risk of termination (hazard ratio = 0.993). This finding confirms the research strand interpreting prolonged bargaining as a sign of careful consideration of the potential benefits derived from joining a coalition government and of the policies that can be implemented. Therefore, a longer bargaining duration can result in a longer life expectancy for the government.

5.3 Robustness tests and diagnostics

Cox regression is part of semi-parametric techniques in event history analysis (Skopek 2022). Compared to non-parametric and parametric techniques, it represents a good compromise between efficiency and robustness. This technique allows fewer to no assumptions regarding the time component and enables easier conditioning on covariates. On the other hand, nonparametric techniques have no assumptions about time; they are robust and close to the data, yet they are less efficient and are not effective for predictions. Finally, parametric techniques have strong assumptions regarding time; they are less robust and more efficient and are good for predictions. As a viable interim solution, semi-parametric techniques provide better predictions than non-parametric ones, yet they are less efficient compared to parametric ones. Additionally, Cox models are considered very robust against misspecification of the rate and are always efficient for comparison (Skopek 2022).

The first fundamental diagnostic performed to test the reliability of the results was the log-rank test⁵³ (Kleinbaum and Klein 2012) on the investigated sample of countries. The test was performed to verify whether the survival distributions of the countries could be compared. The log-rank test is utilised in survival analysis to compare the time distribution of event occurrence in independent samples. Specifically, this test verifies whether there are significant differences between the groups. The grouping of interest for the thesis' analyses are countries. In this regard, Table 15 confirms that the countries can be compared as the table displays that there are significant differences between the groups in terms of the time distribution until the termination event occurs.

Table 15 - Log-rank test, equality of survivor functions (country)

Country	Observed events	Expected events
Austria	20	18.40
Belgium	34	17.25
Cyprus	12	11.39
Denmark	28	19.04
Finland	38	18.64
France	55	19.18
Germany	4	16.89
Greece	10	11.26
Iceland	14	17.83
Ireland	8	18.13
Israel	13	17.81
Italy	48	18.44
Luxembourg	3	15.48
Malta	4	15.45
Netherlands	8	16.81
Norway	13	18.76
Portugal	9	10.46
Spain	2	10.24
Sweden	9	18.69
Switzerland	6	18.01

⁵³ This test is widely employed in medical studies investigating the efficacy of treatment when the time-to-event is the desired information.

United Kingdom	8	17.83
Total	346	346.00
	chi2 (21):	235.55
	Pr>chi2:	0.0000

Source: Author

Moreover, to test the robustness of the Cox model's results, I performed a Cox regression analysis with alternative controls (Table 16). Specifically, following Emanuele, Improta, Marino, and Verzichelli (2022), I replaced the left-right position index with an alternative measure calculated starting from the 'right-left' (RILE) variable in the Comparative Manifesto Project (Volkens et al. 2021). Then, to gauge the effects of crisis-related constraints, I included a dichotomous variable to tackle the cases that signed a memorandum of understanding with the so-called Troika committee (the European Central Bank, the European Commission and the International Monetary Fund), being thus severely confronted with austerity programmes (Lefkofridi and Nezi 2020). Furthermore, I considered two additional variables as indicators of economic condition: the Gross Domestic Product (GDP) growth rate and the government final consumption expenditure, both were calculated one year before the formation of each government. Finally, two alternative contextual features were tested: the presence of scandals and levels of corruption. These factors are particularly important due to their relationship with technocracy. Technocratic appointments can be interpreted as a manifestation of more implicit distrust towards political élites. Wratil and Pastorella (2018) found that political scandals triggered the formation of governments led by technocrats. Thus, political crises due to scandals and corruption can be connected to the sense of the delegitimisation of political formations. I verified this impact by including a dichotomous variable of political scandals. Moreover, the level of corruption can dramatically erode party legitimacy, especially if corruption arises during governance, undermining public support for governments (Walther and Hellström 2019). Therefore, I utilised the political corruption index retrieved from the V-Dem (Varieties of Democracy) dataset. This variable ranges from 0 to 1 (Coppedge et al. 2021).

Table 16 - Cox survival analysis, shared frailties with alternative controls

Model			
Discretionary terminations			
<i>Independent variables</i>	Hazard ratio	P-value	Standard err.
<i>Type of cabinet (ref: single-party majority)</i>			
Multi-party minority	4.173**	0.006	2.185
Single-party minority	3.361*	0.013	1.642
Oversized coalitions	2.796*	0.032	1.343
Minimal winning coalitions	3.786**	0.004	1.728
Constructive vote of no-confidence	0.293**	0.006	0.131
Coalition agreement	0.624*	0.047	0.148
Effective number of parliamentary parties	1.127	0.211	0.108
<i>Alternative controls</i>			
Rile weighted	0.999	0.890	0.005
Memorandum with Troika	0.987	0.621	0.640
GDP growth rate	0.993	0.778	0.032
Government expenditure (% GDP)	1.077	0.060	0.034
Scandal	1.002	0.953	0.622
Corruption	1.863	0.572	6.213
Akaike information criterion		1778.125	
Bayesian information criterion		1829.313	
Prob > chi2		0.0090	
Group variable		Country	
Log likelihood		-876.06275	
Time at risk		291,568	
N of failures		172	
N of governments		379	
N of countries		21	

Note. Cox regression, gamma shared frailties. Breslow method for ties. * p < 0.05, ** p < 0.01, *** p < 0.001.

Source: Author

According to Table 16, the results prove to be robust to different checks, except for fragmentation in parliament, which is not significant. The type of cabinet, the constructive vote of no confidence, and the coalition agreements confirm the hypothesised effect both in terms of sign and statistical significance.

As an additional robustness test, I performed multilevel parametric regression with exponential distribution as this empirical strategy can fit the particular hierarchical structure of the dataset employed in this thesis, yet, as mentioned previously, the

parametric models return worse predictions and are less robust compared to semi-parametric techniques.

Table 17 - Multilevel parametric regression, exponential distribution

<i>Independent variables</i>	Model		
	Discretionary terminations		
	Hazard ratio	P-value	Standard err.
Technocratic share	1.006	0.228	0.005
Type of cabinet (ref: single-party majority)			
Multi-party minority	3.010*	0.018	1.400
Single-party minority	1.968	0.123	0.865
Oversized coalitions	3.199**	0.005	1.310
Minimal winning coalitions	3.267***	0.001	1.171
Constructive vote of no-confidence	0.354**	0.008	0.137
Coalition agreement	0.661*	0.028	0.124
Effective number of parliamentary parties	1.288**	0.004	0.114
Public debt (% GDP)	1.001	0.697	0.003
<i>Controls</i>			
Share of parliamentary seats	0.988	0.401	0.013
Bargaining duration	0.993**	0.008	0.002
Fragmentation in government	1.103	0.363	0.118
Share of demarcation parties	1.003	0.655	0.007
Positive parliamentarism	1.597	0.124	0.486
Electoral system (ref: Proportional)			
Mixed	0.728	0.418	0.284
Majoritarian	1.351	0.514	0.624
Type of democracy (ref: Consensual)			
Hybrid	1.287	0.404	0.389
Westminster	1.691	0.243	0.760
Cabinet ideology (ref: Left)			
Center	1.081	0.726	0.242
Right	0.854	0.452	0.178
Total electoral volatility	0.993	0.601	0.013
Government expenditure (% GDP)	1.012	0.680	0.029
Age of democracy	0.997	0.358	0.002
Year	0.979*	0.013	0.008
constant	1.88*	0.049	3.13
Akaike information criterion		3145.593	
Bayesian information criterion		3254.16	
Prob > chi2		0.0000	

Log likelihood	-1545.7963
N of governments	412
N of countries	21

Note. Multilevel parametric regression. Exponential distribution. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Source: Author

Table 17 presents the results of the multilevel parametric regression. Based on the table, it can be observed that all substantive results displayed in the main model are substantially confirmed. Therefore, the findings of the Cox survival analysis proved to be extremely robust to alternative model specifications by including several, if not all, explanatory factors investigated in the government stability literature⁵⁴.

5.4 Discussion of the results

The results of the survival analysis provide important insights into the enquiry of government stability. As illustrated in the explanatory framework presented in Chapter 1, governments are understood to be exposed to vulnerabilities related to the party system and the outside environment, which can lead to government collapse. In addition, government termination can be interpreted as a consequence of strategic considerations, specifically in terms of judgements about the profitability of government experience. If government participation is deemed risky by the involved actors, governments' risks of collapse are greater. Conversely, if government participation is considered a useful tool to maximise policies, offices and votes, government durability can be higher. Finally, during their life cycles, governments can be equipped with crucial resources ensuring stable government configurations, such as single-party majority, or some long-life 'elixirs', such as operating in systems where a constructive vote of no confidence is enacted. However, the results of the survival analysis only partially confirmed the role of the indicators presented in the explanatory framework.

To start with, the findings corroborated the destabilising role of undersized governments. Both single-party and multi-party minority governments increase the risk of termination for intuitive reasons. Undersized governments cannot rely on a solid parliamentary majority; therefore, they must negotiate with externally supporting parties or even with opposition formations on almost every policy to be designed and

⁵⁴ Additional robustness tests are presented in the Appendix.

implemented. The survival analysis showed that multi-party minority configurations play a more critical role compared to single-party configurations as in the former cabinet type, the need for bargaining with externally-supporting parties and opposition parties is accompanied by the additional complexity brought by the coalition governance (forming a cabinet with a ruling partner) holding different interests and preserving often divergent electoral constituencies. As extensive literature shows (e.g. Strøm 1984; Bergman 1993), minority governments are frequently formed in Nordic countries, representing a key feature of the political systems of Denmark and Norway, for instance. However, the formation of such ruling configurations is not limited to Scandinavia and thus implies a more compelling theoretical consideration of minority governments. Strøm and Swindle (2002) famously argued that such governments can more easily be induced to dissolve the parliament on the premise that ‘the less effective and secure the government is under the existing distribution of parliamentary forces, the lower the value of continuing the existing parliament’ (Strøm and Swindle 2002: 584). This argument very closely echoes the views of Balke (1990) and Smith (1996).

Another interesting element emerging from the analysis of the impact of oversized and minimal winning coalitions is the fact that both cabinet types are associated with an increased risk of termination, yet the latter has higher levels of statistical significance. This result opposes the famous size criterion proposed by Riker (1962), who considered the winning formula (minimal winning coalitions) as the most stable coalitional setup and, therefore, the most desirable by office-seeking ruling parties. However, in minimal winning configurations, the ruling parties must be considerably more careful in monitoring the coalition bargain as the withdrawal of any single partner can result in cabinet termination (see also Chiru and De Winter 2021)⁵⁵. Finally, the analysis of the cabinet type effect confirms the stabilising role of single-party majority governments. Such cabinet types have two relevant elements. First, there are no transaction costs due to the single-party ruling. Second, conflicts are limited to the intraparty arena: conflicts can ensue from negotiations with factions within the ruling party. Single-party majority governments secure government stability, yet we know that such ruling configurations are derived from institutional architectures that facilitate the formation of solid majorities

⁵⁵ Appendix Z presents a comparison to estimate the impact of oversized and minimal winning coalitions separately.

in parliament held by a single party. Thus, this finding can also serve as a policy recommendation when dealing with the design of institutional reforms.

Another relevant finding emerging from the survival analysis is the critical impact of the constructive vote of no confidence in the institutional setup of a political system. Commonly understood as an effective tool for limiting conflicts and removal (Helland 2004; Lijphart 2004; Hazan 2014), constructive no-confidence motions simultaneously depose a government and appoint its successor (Lento and Hazan 2022; Rubabshi-Shitrit and Hasson 2022). In this vein, parliamentary members are forced to agree on a successor executive to terminate the undesired government fruitfully. The survival analysis confirms the hypothesised stabilising effect of this more restrictive type of no-confidence vote. This result is significant as policymakers operating in unstable multiparty systems can draw upon it when solving the issue of government instability (see also Lijphart 2004) and considering introducing the constructive vote of no-confidence in the institutional framework of the country. However, there is a caveat. As the constructive vote of no confidence affects other factors related to the government–parliament relationship, this instrument should be adopted in strictly parliamentary systems in which there are unstable and fragile cabinets to rationalise parliamentarianism. In other words, this adoption can be justified by the need to preserve effective governance in divided societies that are typical of consensual democracies (Lijphart 2004). Political systems characterised by stable governments and/or presidential and semi-presidential setups do not require this type of no-confidence vote. Therefore, further scientific investigations on the other – and possibly alternative – effects of the constructive vote of no confidence, notably on the legislative-executive balance, are much needed to carefully consider the overall effects that can be produced by such an institutional amendment.

Moreover, apart from the constructive vote of no confidence, the survival analysis showed a significant impact of coalition agreements on government stability. These agreements can be effective in preventing policy conflicts between coalition partners as they provide parties with a sedimented roadmap to follow during governance. According to Krauss (2018), coalition agreements are a tool that can be used to avoid or constrain intracoalition arguments and thus lower the risk of government termination. Specifically, ‘Ministers can evade the compromise policies of a coalition which might lead to serious conflicts in the coalition. Control mechanisms like coalition agreements are used to keep tabs on the coalition partners and prevent the ministers’ evasions, which leads to a lower risk of early termination’ (Krauss 2018: 1284). As the performed survival analysis further

reinforces this claim, policymakers can consider formalising the presence of coalition agreements by including them in the institutional setup of the country to ensure government stability.

Finally, concerning contextual features, the findings demonstrate the destabilising role of increased fragmentation in parliament. Based on Lowell's axiom of politics (1896), the thesis that the numerical structure of the party system in the lower house is a determinant of the stability of the cabinet is well known (Taylor and Herman 1971), and the empirical test of this assumption, verified in a wide-ranging sample, allows us to state the existence of this relationship in a clearer and more reliable way. Drawing upon this result, constitutional engineering efforts can include instruments that prevent the spread of several political formations in the parliamentary arena. Traditionally, one viable way to solve this issue has been to restrict small parties' access to the legislature by introducing a higher electoral threshold when designing an electoral system.

5.5 Conclusion

This chapter presents the results of the empirical analyses of the thesis. Specifically, I applied semi-parametric techniques from the family of event history models. To properly gauge the life cycle of the governments, following the dynamic perspective of government stability, I performed a Cox survival analysis, resulting in three major findings. First, single-party majority governments are the most effective cabinet types for securing government stability. Second, institutions and rules, such as the constructive vote of no confidence and coalition agreements, allow governments to have longer life expectancies. Third, fragmentation in parliament is detrimental to government stability.

The findings of this thesis have important implications for both politics and political science. On the one hand, party politicians willing to form stable governments should look more carefully into minimal winning coalitions as these coalition setups can unpredictably lead to early termination. On the other hand, the constitutional, and in some cases institutional, engineering in which political scientists can be involved should carefully consider introducing instruments which can ease the formation of single-party majority cabinets.

Further policy recommendations include careful introduction of the constructive vote of no confidence into a system that is not previously equipped with it and formalisation

of coalition agreements. Policymakers can also introduce – and policy advisors can suggest to introduce – higher electoral thresholds when designing electoral systems to limit room for fragmentation in the legislative arena. Finally, an essential reform can be considered to introduce anti-defection laws as high electoral thresholds limit the fragmentation only at the beginning of the legislature. Yet, instruments constraining party switching⁵⁶ are also needed as this phenomenon affects the fragmentation created during the legislature (after its initial establishment).

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⁵⁶ See also Mershon (2014), Nikolenyi (2019, 2022), Ceron and Volpi (2021) and Pinto (2021).

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Conclusion

What are the factors influencing higher or lower government stability? This thesis aimed to address this fundamental research question, whose answers have important implications for both political research and politics. The interest in this matter began by observing the crucial transformations occurring in several democratic systems. Specifically, such changes regarded unstable countries becoming even more unstable, and countries widely recognised as stable becoming more unstable. Therefore, an interesting yet complicated conundrum was evident. Governing democracies has become increasingly arduous. During the life cycle of a cabinet operating in a democratic system, prime ministers and government members must deal with additional complexity compared to governmental personnel in autocracies. Beyond policymaking, indeed, democratic rulers must be accountable towards citizens, so they are exposed to voter electoral punishment, public opinion shocks, critical media attention ('watchdog'), and the challenges deriving from opposition parties.

Furthermore, within this framework, prime ministers and ministers also need to fulfil the requirements of responsible governance resulting from supranational institutions and actors (e.g., the European Commission and the International Monetary Fund) and financial markets (Lefkofridi and Nezi 2020). However, by meeting such demands, governmental members risk losing on the responsiveness side of their ruling efforts (Mair 2009). Hence, why have governments been striving to survive in office? What are the reasons underpinning such a growing instability? The reduced stability is due to structural motives or contextual? What is the role of institutions?

In order to deal with such questions, I have explored and examined the remarkable research that has been conducted on government stability, starting from classic contributions (Lowell 1896; Riker 1962; Dodd 1976) to more cutting-edge research, particularly the fresh coalition life cycle approach (Strøm, Müller, and Bergman 2008; Bergman, Bäck, and Hellström 2021), interpreting the government life's different stages as inevitably interconnected. As shown in Chapter 1, government stability is a broad concept. The topic has been at the core of a heated debate between structural and event theorists – the so-called survival debates (Warwick 1994). Scholarly efforts on this matter scrutinised in particular, the types of termination and, after the methodological

advancement deriving from the unified approach, the survival rates of governments borrowing from medical research (Cox 1972). In this perspective, governments were studied as medical patients with different life expectancies according to their characteristics (King, Alt, Burns, and Laver 1990).

Considering all this, I built an original multilevel dataset containing information on 720 cabinets and 421 elections from 1945 to 2021. With this hierarchical data structure, I performed semi-parametric survival analysis, i.e., Cox models with shared frailties. Specifically, I used government discretionary termination as the failure variable, considering the number of days spent in government as the fundamental analysis time of the study. The main explanatory factors belong to three different clusters, according to the novel explanatory framework presented in this thesis. The first cluster refers to the government structural attributes. The second entails the factors belonging to the institutions and rules. Lastly, the third cluster aims to grasp the effect of contextual factors. The models are performed taking into account critical additional factors as controls.

Before moving to the empirical analysis, in the third chapter of the thesis I showed information on the temporal and spatial dynamics of government stability in the 21 democracies under investigation. The abovementioned consideration concerning a growing instability trend is confirmed when examining temporal trajectories. Notably, the current decade (2020s) presents the highest level of government instability ever recorded since the end of World War II. This dramatic decline in stability confirms that contemporary governments are facing considerable difficulties undermining their ability to last in office. Observing spatial trajectories, the thesis displayed the increased instability recorded in Belgium, Finland, France, Greece and Italy. Such countries are, in fact, those experiencing a higher share of short-lived cabinets in comparative perspective.

However, looking to government duration only might not be sufficient. To grasp government turnover alongside government stability, I collected information on the presence of ruling instability, measured by considering ministerial experience (Huber and Martinez-Gallardo 2004) and returnability (Warwick 1994). Such two indices reflect the degree of novelty in government examining the ability of parties and ministers of defunct governments to join subsequent ones, following a 'resilient' attitude. Therefore, considering both government and ruling instability, the results show that Finland, Greece and Italy are the countries experiencing both government instability and ruling instability.

Leveraging the extensive dataset collected, in the fourth chapter of the thesis I illustrate spatial and temporal specificities of the main explanatory factors tested. To begin with, the most diffused trend concerning the cabinet type is the power diffusion in cabinet and, as a result, the increased formation of ‘collective’ cabinets (Huber 2001). Moreover, technocratic presence is scattered across several countries, particularly in Cyprus, Italy and Greece, whereas technocrats are absent from government in Malta and Switzerland, in which portfolio allocation is largely partisan. Moving to the institutional factors, the common patterns when it comes to the vote of no-confidence is the existence of rules that are ‘permissive’ according to the framework adopted (Lento and Hazan 2022). The majority of countries in fact require regular votes of no-confidence, while Germany, Belgium, Israel and Spain require a constructive vote of no-confidence. Additionally, other countries opted for a ‘middle way’ solution in the permissiveness-restrictiveness dividing line, requiring an absolute majority to terminate a cabinet (e.g., Portugal, Greece and Sweden). Finally, the contextual factors in both the economy and parliamentary configurations show remarkable national variation. Belgium, France, Israel and Italy record both high public debt and high parliamentary fragmentation, demonstrating high complexity both in terms of economic conditions and the party system.

The survival analyses performed presented interesting results. First, single-party majority governments should be the most preferred ruling solution as they are the most effective cabinet types for securing longevity in office. Second, the presence of a constructive vote of no-confidence and coalition agreements allow governments to record longer endurance. Third, governments record lower survival rates if ruling in contexts of high parliamentary fragmentation. Considering such findings, party politicians willing to establish solid governments should thoroughly consider the coalition formation stage as a fundamental phase potentially influencing also termination. Furthermore, beneficial institutions should be subject to a careful consideration when it comes to constitutional engineering. In particular, the findings about cabinet types suggest including institutional instruments facilitating the formation of single-party majority governments, e.g., by adopting *ad hoc* electoral rules and provisions.

Additionally, policy recommendations should include adopting the constructive vote of no-confidence and the formalisation of coalition agreements. Indeed, the former would increase the restrictiveness of the cabinet termination process by the legislature, while the latter would make coalition governance and interparty interactions clearer and, ultimately, ruling parties more accountable vis-à-vis the public. Moreover, the result

concerning the negative impact of fragmentation on survival suggests that policymakers introduce higher electoral thresholds when designing electoral laws to make the entrance of minor parties into the parliament more difficult. However, fragmentation can also emerge after the establishment of a new legislature. Indeed, the phenomenon of party switching may boost interelection fragmentation. Therefore, a piece of policy advice attempting to tackle this issue might be that of including anti-defection laws (see also Nikolenyi 2022) – provisions already present, for instance, in the Israeli and Portuguese institutional architecture.

Constitutional amendments in the institutional setting of the interested countries should not neglect important side effects and feasibility concerns related to some specific reforms. In this regard, single-party majority governments have historically emerged in very peculiar systems, and in particular in Westminster types of democracy, which are characterised by plurality electoral rules, two-party systems and specific political traditions. Therefore, it may be that constitutional engineering efforts would likely fail establish a Westminster model in countries where the elements underpinning this type of democratic model are absent. Moreover, institutional reforms in a Westminster direction can be of difficult implementation because new institutional rules are not chosen in a vacuum by constitutional, political engineers. Key political actors will decide to adopt new rules only if these are consistent with their interests. Since only the major parties of a political system – in terms of size – would benefit from a shift towards a majoritarian democracy, minor parties equipped with blackmail potential will be unlikely to opt for rules establishing an unfavourable democratic model. Furthermore, the impact of anti-defection laws in Western Europe is still to be fully assessed, as they might be too rigid as mechanism for reducing parliamentary fragmentation⁵⁷.

There is little doubt, however, that the government instability problem cannot be solved with constitutional engineering only. The most effective remedy would certainly be forming a solid political culture within the party system. This is particularly relevant in divided societies ruled according to the consensus style (Lijphart 1999), where power sharing implies coalition partners cooperate for effective governance. However, governing parties are vote-seekers and electorally compete with each other (Narud 1996; Marangoni and Vercesi 2015; Sagarzazu and Klüver 2017). Thus, the risk of parties pursuing electoral incentives rather than adopting system-oriented views is always high.

⁵⁷ I thank Andrea Pedrazzani for his insightful remarks on this regard.

As Müller and Strøm (2000) note, multiparty politics has become the twentieth-century norm and in such systems the possibility always exist that no party alone will command a parliamentary majority. Coalitions, however, are not inherently unstable. In Germany and Switzerland, for instance, multiparty governments stably rule without giving rise to frequent government crises. When a solid political culture (of cooperation) is lacking, the only solutions to the instability problem can be institutionally-driven. In this regard, the Italian case is an excellent example of reforming ‘obsession’ (Lanzalaco 2005), particularly regarding electoral reforms (Chiaramonte 2020).

Despite using a novel dataset, thus expanding both the spatial and temporal framework of existing research and proposing a fresh explanatory framework, this thesis aligned with previous scholarly efforts concerning the methodology and the research question. The thesis nonetheless offered important elements of novelty. Indeed, it is based on some of the widest arrays of information at disposal in comparative politics research, thus allowing to testing a relevant amount of variables. Such variables are refined according to the most recent advancement in the field. Finally, as mentioned, by performing robust analyses, the results function as a potential important basis for constitutional engineering efforts.

While the literature on the determinants of government stability is considerable, the findings presented in this thesis may importantly lay the groundwork for future research avenues. Indeed, government stability should be considered a fundamental component of the quality of democracy. Therefore, investigating the relationship between short-lived cabinets and democracy is much needed. Potential enquiries may examine the impact of short longevity in office on multiple facets of democracy.

First, unstable governments could erode the perceived efficacy of citizens when it comes to voting. For instance, if citizens observe a frenetic government turnover after the election, they might consider maturing a voting habit as an ineffective tool to properly impact on the democratic decision-making. More in detail, unstable governments should reduce citizens’ opportunity to have a say over the policy output of the democratic system⁵⁸. Therefore, as short-lived cabinets have a reduced horizon and, consequently, reduced accountability over the implemented or aborted policies, voter turnout would be depressed in a context of extreme instability.

⁵⁸ Following Turnbull-Dugarte’s (2020) lines of reasoning for similar effects of external constraints on turnout.

Despite the considerable research carried out on both government stability and turnout, cabinet and electoral politics scholars have overlooked the instability of governments as a potential driver of poor turnout. However, government instability might not limit its adverse effects on electoral participation. Indeed, citizens may also negatively evaluate their satisfaction with democracy *tout court*. In addition, they may reduce their trust in parties, parliaments, governments, and political institutions in general. The consequences of instability may also regard increased electoral volatility, as voters might be more prone to punish governments for poor performance or even lack of performance due to the short time in office.

Overall, we cannot be optimistic about the state of health of democracies. Unprecedented and crucial challenges are currently undermining political stability in Europe. Difficulties started with the 2008 economic and financial crisis. The eruption of the Covid-19 pandemic and the Russian-Ukrainian conflict aggravated the situation. The governmental task can be considered arduous even in periods of political stability. In periods of crisis, democratic governments must record even higher stability to effectively deliver and satisfy citizens' needs and demands. In such turbulent times, a severe lack of stability in office would likely lead to political deadlock and turmoil, significantly affecting the government's reliability and legitimacy to be considered the 'problem solver' of the citizens' concerns. Within this framework, an increased government stability would be desirable.

The temporal variations presented in this thesis signal that most of the governments in the 21 democracies investigated will likely continue to record low levels of stability. This might produce negative consequences on several vital dimensions of democratic quality – public support, above all. Nonetheless, the suggestions for policy actions resulting from this thesis may effectively alleviate the instability problem in some political systems. However, critical political developments in both consolidated and younger democratic systems suggest there will still be a long time of instability before seeing results of such constitutional engineering efforts.

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Annex

This thesis is based on an original multilevel dataset precisely constructed for this dissertation project. In this annex, I present the codebook of the dataset, indicating the operationalisation of the main variables with all the relevant information. The dataset will be officially released after the publication of the thesis in the following form: Emanuele, V. and Improta, M. (2023) GOVDEM21: Dataset of Governments in 21 Democracies. Rome: Italian Center for Electoral Studies.

Description of the dataset

The *Dataset of Governments in 21 Democracies (GOVDEM21)* provides data on governments and legislative terms in 21 democracies since 1945. Data for Cyprus, Greece, Portugal and Spain – so-called late democratisation countries – have been collected since the 1970s. The dataset is constituted by three levels: country, election, cabinet.

Content

Variable codes and description of the operationalisation

1. **Country:** country name in alphabetical order (Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom).
2. **Countrycab:** cabinet number for each country
3. **Name:** name of the prime minister

4. **Start:** start date of the government
5. **End:** end date of the government
6. **Duration:** government duration in days
7. **Legislature:** government legislature
8. **Composition:** party composition of the government
9. **Primeminister:** party of the prime minister
10. **Nonpartisancabinet:** dichotomous variable coded “0” if the government is led by a prime minister with a partisan affiliation and coded “1” if the prime minister is nonpartisan (i.e. a technocrat, caretaker, expert or independent)
11. **Ncabinetparties:** number of parties holding office positions in the government
12. **Totalnumberofministries:** total number of ministries; if a minister or the prime minister holds more than one ministerial office is counted as one person
13. **Independentminister:** number of ministers without partisan affiliation
14. **Firstparty:** name of the party holding the majority of ministerial offices
15. **Firstp_n:** number of ministerial offices led by the first party
16. **Secondparty:** name of the second party in terms of ministerial offices
17. **Secondp_n:** number of ministerial offices led by the second party
18. **Thirdparty:** name of the third party in terms of ministerial offices
19. **Thirdp_n:** number of ministerial offices led by the third party
20. **Fourthparty:** name of the fourth party in terms of ministerial offices
21. **Fourthp_n:** number of ministerial offices led by the fourth party
22. **Fifthparty:** name of the fifth party in terms of ministerial offices
23. **Fifhtp_n:** number of ministerial offices led by the fifth party
24. **Sixthparty:** name of the sixth party in terms of ministerial offices
25. **Sixthp_n:** number of ministerial offices led by the sixth party

26. **Seventhparty**: name of the seventh party in terms of ministerial offices
27. **Seventhparty_n**: number of ministerial offices led by the seventh party
28. **Eighthparty**: name of the eighth party in terms of ministerial offices
29. **Eighthparty_n**: number of ministerial offices led by the eighth party
30. **Ninthparty**: name of the ninth party in terms of ministerial offices
31. **Ninthparty_n**: number of ministerial offices led by the ninth party
32. **Tenthparty**: name of the tenth party in terms of ministerial offices
33. **Tenthparty_n**: number of ministerial offices led by the tenth party
34. **Ideologicalposition**: ideological position based on the left-right dimension (0 left, 1: centre-left, 2: centre, 3: centre-right, 4: right)
35. **Governingformula**: dichotomous variable coded “0” if the governing formula is familiar, namely the government is led by parties which already have governed together or the government is single-party majority and the single party already governed in the past. On the contrary, the value “1” indicates that the governing formula is innovative. In this case, the government could be composed by a) only one party that never governed; b) a coalition that never governed; c) a coalition containing one party that never governed; d) a coalition containing parties that never governed together
36. **Typeofcabinet**: continuous variable; 0: multiparty minority government; 1: singleparty minority government; 2: oversized majority; 3: minimal winning coalition; 4: singleparty majority government. This variable considers the governments usually studied in coalition studies (Riker 1962).
37. **Parliamentaryseats**: share of parliamentary seats held by the government. The representative assemblies considered are that of the lower house in cases of bicameralism. Austria: Nationalrat; Belgium: Chamber of the Representatives;

Cyprus: House of Representatives; Denmark: Folketing; Finland: Eduskunta; France: Assemblée Nationale; Germany: Bundestag; Greece: Hellenic Parliament; Iceland: Althing; Ireland: Dail Eireann; Israel: Knesset; Italy: Camera dei Deputati; Luxembourg: Chamber of Deputies; Malta: Parlament ta' Malta; Netherlands: House of Representatives; Norway: Storting; Portugal: Assembleia da Republica; Spain: Congreso de los Diputados; Sweden: Riksdag; Switzerland: National Council; United Kingdom: House of Commons.

38. **Effectivenumberofparties:** effective number of government parties, based on the effective number of electoral parties (Laakso and Taagepera 1979). Differently from the latter, the former considered the government positions held by government parties
39. **Confidence:** vote of confidence; dichotomous variable, where “1” indicates that the vote of confidence is explicit (positive parliamentarism) and “0” that the vote of confidence is implicit (negative parliamentarism). In negative parliamentarism systems, it is not constitutionally required for a government to hold a confidence relationship with the legislature in order to be formed
40. **Confidence_dum:** constructive vote of no-confidence: 0: regular; 1: constructive
41. **Formula2:** see ‘governingformula’. In this case, however, changes in balance of power among coalition parties are considered as determinants of innovative governing formulae
42. **Left:** dichotomous variable, coded “0” if there are not left parties in government and “1” if there are left parties in government
43. **Leftpm:** dichotomous variable, coded “0” if the prime minister does not belong to a left party and coded “1” if the prime minister belongs to a left party

44. **Leftwgt:** weight of the left within the government, operationalised as a percentage, namely the number of ministers belonging to a left party divided for the total number of ministers multiplied for 100 (left ministers/total number of ministers*100).
45. **Incumbent:** dichotomous variable, where “1” indicates that the last government of the legislature is headed by the same prime minister that opens the subsequent legislature and “0” indicates that the last government of the legislature is not headed by the same prime minister opening the next legislature. Intraelection cabinets led by the same prime minister are not considered as a case of incumbency
46. **Lastgov:** dichotomous variable, where “1” indicates that the government is the last of the legislature and “0” otherwise
47. **Cntry:** indicates a number associated with a specific country (i.e., 21: United Kingdom)
48. **Cabinet_n:** number of the government for the whole dataset
49. **Dumcount1:** dichotomous variable, “1” indicates that the country considered is Austria
50. **Dumcount2:** dichotomous variable, “1” indicates that the country considered is Belgium
51. **Dumcount3:** dichotomous variable, “1” indicates that the country considered is Cyprus
52. **Dumcount4:** dichotomous variable, “1” indicates that the country considered is Denmark
53. **Dumcount5:** dichotomous variable, “1” indicates that the country considered is Finland

54. **Dumcount6**: dichotomous variable, “1” indicates that the country considered is France
55. **Dumcount7**: dichotomous variable, “1” indicates that the country considered is Germany
56. **Dumcount8**: dichotomous variable, “1” indicates that the country considered is Greece
57. **Dumcount9**: dichotomous variable, “1” indicates that the country considered is Iceland
58. **Dumcount10**: dichotomous variable, “1” indicates that the country considered is Ireland
59. **Dumcount11**: dichotomous variable, “1” indicates that the country considered is Israel
60. **Dumcount12**: dichotomous variable, “1” indicates that the country considered is Italy
61. **Dumcount13**: dichotomous variable, “1” indicates that the country considered is Luxembourg
62. **Dumcount14**: dichotomous variable, “1” indicates that the country considered is Malta
63. **Dumcount15**: dichotomous variable, “1” indicates that the country considered is Netherlands
64. **Dumcount16**: dichotomous variable, “1” indicates that the country considered is Norway
65. **Dumcount17**: dichotomous variable, “1” indicates that the country considered is Portugal

66. **Dumcount18**: dichotomous variable, “1” indicates that the country considered is Spain
67. **Dumcount19**: dichotomous variable, “1” indicates that the country considered is Sweden
68. **Dumcount20**: dichotomous variable, “1” indicates that the country considered is Switzerland
69. **Dumcount21**: dichotomous variable, “1” indicates that the country considered is United Kingdom
70. **Start_year**: start year of the government
71. **Decade**: decade in which the government is born (1940s, 1950s, 1960s, 1970s, 1980s, 1990s, 2000s, 2010s, 2020s)
72. **Country_short**: abbreviation of the country name according to ISO rules (e.g. Austria: AT)
73. **Left_gov**: dichotomous variable, coded “0” if the government does not contain a left party and “1” if the government is formed by at least one left party
74. **Year**: start year of the legislature
75. **Election_date**: exact date of the election
76. **Multi_min**: dichotomous variable, “1” indicates multiparty minority government
77. **Mono_min**: dichotomous variable, “1” indicates singleparty minority government
78. **Oversized**: dichotomous variable, “1” indicates oversized majority government
79. **Min_winn**: dichotomous variable, “1” indicates minimal winning coalition
80. **Mono_maj**: dichotomous variable, “1” indicates singleparty majority government

81. **Tecnici_pct**: share of technocratic ministries in the government (number of technocratic ministries divided for the total number of ministerial offices*100)
82. **Firstgov**: dichotomous variable, “1” indicates that the government is the first one of the legislature, “0” otherwise
83. **Gdp_rate**: one-year lagged Gross Domestic Product growth rate. Data source: Total Economic Database
84. **Unemployment_rate**: one-year lagged unemployment rate; Data source: Comparative Political Dataset since 1960. Since 1980, International Monetary Fund.
85. **Gro_coal**: dichotomous variable, “1” indicates that the main mainstream parties of the country govern together, and “0” otherwise
86. **Ginn_gov**: share of new parties in government (number of ministries held by a new party divided for the total number of ministerial offices*100)
87. **First_alt**: dichotomous variable, where “1” indicates that the innovative governing formulae concern the first alternation in government. This variable is useful in order to control elements of disturbance in the case of innovative governing formulae. Namely, innovation that is not ‘pure’ innovation
88. **Election**: numerical listing of elections for all countries, in alphabetical order
89. **Cab_count**: number of cabinets in office during the legislature
90. **Enop**: effective number of opposition parties (Maeda 2010); based on the number of parliamentary seats of opposition parties
91. **Pop**: dichotomous variable, absence (0) or presence (1) of ‘permanent opposition parties’. “1” indicates that during the legislature there is or there are permanent opposition party or parties in parliament, namely parties that never joined the cabinet

92. **Left_right:** As in Emanuele, Improta, Marino and Verzichelli (2022), the left-right position is based on ParlGov party family identifier (Döring and Manow 2020). To each party family has been assigned a position from 1 to 5 according to the left-right continuum. They have been operationalised as follows: communist/socialist (1); social democracy (2); green/ecologist (2); agrarian (3); liberal (3); Christian democracy (4); conservative (4); right-wing (5). To establish the left-right position of the governments, we adopted the following criteria: for cases in which a party holds at least 66,6% of the ministerial seats, the left-right position of the government is that of such party. If no party holds at least 66,6% of the ministerial seats, we assigned the left-right position of the government according to a) which coalition party has the absolute majority of ministerial seats and b) whether contiguous or non-contiguous party families form the government. Considering the weight of each party in each government in terms of ministerial seats, we can distinguish whether the government is left-leaning, centre-leaning, or right-leaning. Differently from Woldendorp, Keman and Budge (1998), we did not consider the share of parliamentary seats of the government parties, but rather we exclusively focus on the degree of dominance in government. This choice appears the most profitable to gauge peculiarities of the governmental arena. In addition, to assess the government's parliamentary support, we collected an ad hoc variable, i.e., parliamentary support. Finally, we did not include in the operationalisation what Woldendorp, Keman and Budge labelled 'balanced situation'. By adopting our criteria, we are always able to detect the dominance of one party or the other.
93. **Barg_dur:** overall duration of the bargaining process, measured in days: government formation minus election date (for first governments of the

legislature), and government formation date minus previous cabinet end date. Such an index specifies the amount of time (i.e., the time spent in negotiations for coming to an agreement) taken by political formateurs in order to form a government. This serves as a proxy for grasping the complexity and uncertainty in the bargaining process (De Winter and Dumont 2008).

94. **Lijphart:** trichotomous variable, “0” indicates consensus democracies, “1” indicates an hybrid system, “2” indicates Westminster (majoritarian) democracies
95. **Demwgt:** weight of demarcation parties in the government, operationalised as a percentage. The number of ministers belonging to a demarcation party is divided for the total number of ministers multiplied for 100 ($\text{dem. Ministers}/\text{total number of ministers} * 100$). Demarcation parties are taken from the ‘demarcation bloc parties’ (Emanuele, Marino and Angelucci 2019).
96. **Gfce:** one-year lagged general government final consumption expenditure as a percentage of the GDP. This index includes government current expenditures for purchases of goods and services (including compensation of employees). It also includes most expenditures on national defense and security, but excludes government military expenditures that are part of government capital formation. It is collected on annual-base and is operationalised as a weighted average. GDP from the expenditure side is made up of household final consumption expenditure, general government final consumption expenditure, gross capital formation (private and public investment in fixed assets, changes in inventories, and net acquisitions of valuables), and net exports (exports minus imports) of goods and services. Such expenditures are recorded in purchaser prices and include net taxes on products. Source: World Bank (World Development Indicators). Last data collection covers the 1970-2021 period.

97. **Govdebt:** one-year lagged general government debt as percent of GDP. Source: International Monetary Fund
98. **Coal_agreement:** Data source: ERDDA dataset (2021). Coalition agreements include both written and unwritten agreements, and both pre- and post-election ones
99. **Technocrat_led:** dichotomous variable: “1” indicates that the prime minister is nonpartisan, “0” otherwise
100. **EU_membership:** dichotomous variable, “0” indicates that the country is not member of the European Union, “1” indicates that the country is member of the European Union. Source: <https://european-union.europa.eu/principles-countries-history/country-profiles/>
101. **Troika:** dichotomous variable, “1” indicates that the country has signed a memorandum of understanding with Troika”, “0” otherwise.
102. **Euro:** trichotomous variable. “0” indicates that the country is not member of the European Union, “1” indicates that the country is member of the European Union”, “2” indicates that the country is both member of the European Union and of the Eurozone
103. **Scandal:** “1” indicates that there has been a scandal before government formation, “0” indicates otherwise. Data source: ERDDA dataset (2021)
104. **Corruption:** calculated as one year-lagged. Based on the political corruption index based on Coppedge et al. (2021)
105. **Electoralssystem:** trichotomous variable. “0” indicates a proportional representation system; “1” indicates a mixed system; “2” indicates a majoritarian system. Data comes from Bormann and Golder (2017)

106. **Ministerialexperience:** share of ministers in the new cabinet with government experience in the previous cabinet, based on Huber and Martinez-Gallardo (2004)
107. **Returnability:** share of cabinet parties that return to power after termination (Warwick 1994). Government composition considered is at t-1.

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Appendix

Appendix A. Examples of data entries

country	countrycab	name	start	end	duration	legislature	composition
Austria	1	Renner	16554	16791	237	1945-1949	SPÖ, ÖVP, KPÖ
Austria	2	Figl	16792	18209	1418	1945-1949	ÖVP, SPÖ, KPÖ
Austria	3	Figl II	18210	19294	1084	1949-1953	ÖVP, SPÖ
Austria	4	Figl III	19295	19415	120	1949-1953	ÖVP, SPÖ
Austria	5	Raab	19451	20589	1138	1953-1956	ÖVP, SPÖ
Austria	6	Raab II	20635	21682	1047	1956-1959	ÖVP, SPÖ

Appendix B. Constitutional interelection period (CIEP) in 21 democracies (Lower House)

Country	CIEP
Austria	5 years
Belgium	5 years
Cyprus	5 years
Denmark	4 years
Finland	4 years
France	5 years
Germany	4 years
Greece	4 years
Iceland	4 years
Ireland	5 years
Israel	4 years
Italy	5 years
Luxembourg	5 years
Malta	5 years
Netherlands	4 years
Norway	4 years
Portugal	4 years
Spain	4 years
Sweden	4 years
Switzerland	4 years
UK	5 years

Note: the constitutional interelection period (CIEP) is employed in comparative research for the study of coalition politics and government stability. It describes the maximum possible lifespan of a cabinet between elections (Clemens and Saalfeld 2007; King, Alt, Burns and Laver 1990).

Appendix C. Cabinets in Austria

country	countrycab	name
Austria	1	Renner
Austria	2	Figl
Austria	3	Figl II
Austria	4	Figl III
Austria	5	Raab
Austria	6	Raab II
Austria	7	Raab III
Austria	8	Raab IV
Austria	9	Gorbach
Austria	10	Gorbach II
Austria	11	Klaus
Austria	12	Klaus II
Austria	13	Kreisky
Austria	14	Kreisky II
Austria	15	Kreisky III
Austria	16	Kreisky IV
Austria	17	Sinowatz
Austria	18	Vranitzky
Austria	19	Vranitzky II
Austria	20	Vranitzky III
Austria	21	Vranitzky IV
Austria	22	Vranitzky V
Austria	23	Klima
Austria	24	Schussel
Austria	25	Schussel II
Austria	26	Gusenbauer
Austria	27	Faymann
Austria	28	Faymann II
Austria	29	Kern
Austria	30	Kurz
Austria	31	Bierlein
Austria	32	Kurz II
Austria	33	Schallenberg
Austria	34	Nehammer

Appendix D. Cabinets in Belgium

country	countrycab	name
Belgium	1	Spaak
Belgium	2	Van Acker

Belgium	3	Huysmans
Belgium	4	Spaak II
Belgium	5	Spaak III
Belgium	6	Eyskens
Belgium	7	Duvieusart
Belgium	8	Pholien
Belgium	9	Van Houtte
Belgium	10	Van Acker II
Belgium	11	Eyskens II
Belgium	12	Eyskens III
Belgium	13	Lefevre
Belgium	14	Harmel
Belgium	15	Van den Boeynants
Belgium	16	Eyskens IV
Belgium	17	Eyskens V
Belgium	18	Leburton
Belgium	19	Tindemans
Belgium	20	Tindemans II
Belgium	21	Tindemans III
Belgium	22	Tindemans IV
Belgium	23	Van den Boeynants II
Belgium	24	Martens
Belgium	25	Martens II
Belgium	26	Martens III
Belgium	27	Martens IV
Belgium	28	M Eyskens
Belgium	29	Martens V
Belgium	30	Martens VI
Belgium	31	Martens VII
Belgium	32	Martens VIII
Belgium	33	Martens IX
Belgium	34	Dehaenen
Belgium	35	Dehaenen II
Belgium	36	Verhofstadt
Belgium	37	Verhofstadt II
Belgium	38	Verhofstadt III
Belgium	39	Verhofstadt IV
Belgium	40	Leterme
Belgium	41	Van Rompuy
Belgium	42	Leterme II
Belgium	43	Di Rupo
Belgium	44	Michel
Belgium	45	Michel II

Belgium	46	Wilmes
Belgium	47	Wilmes II
Belgium	48	Croo

Appendix E. Cabinets in Cyprus

country	countrycab	name
Cyprus	1	Makarios IV
Cyprus	2	Makarios V
Cyprus	3	Sampson
Cyprus	4	Clerides
Cyprus	5	Makarios VI
Cyprus	6	Kyprianou I
Cyprus	7	Kyprianou II
Cyprus	8	Kyprianou III
Cyprus	9	Kyprianou IV
Cyprus	10	Vassiliou
Cyprus	11	Clerides I
Cyprus	12	Clerides II
Cyprus	13	Clerides III
Cyprus	14	Clerides IV
Cyprus	15	Papadopoulos I
Cyprus	16	Papadopoulos II
Cyprus	17	Christofias I
Cyprus	18	Christofias II
Cyprus	19	Christofias III
Cyprus	20	Anastasiades I
Cyprus	21	Anastasiades II
Cyprus	22	Anastasiades III
Cyprus	23	Anastasiades IV

Appendix F. Cabinets in Denmark

country	countrycab	name
Denmark	1	Kristensen
Denmark	2	Hedtoft
Denmark	3	Hedtoft II
Denmark	4	Eriksen
Denmark	5	Eriksen II
Denmark	6	Hedtoft III
Denmark	7	Hansen
Denmark	8	Hansen II

Denmark	9	Kampmann
Denmark	10	Kampmann II
Denmark	11	Krag
Denmark	12	Krag II
Denmark	13	Krag III
Denmark	14	Baunsgaard
Denmark	15	Krag IV
Denmark	16	Jorgensen
Denmark	17	Hartling
Denmark	18	Jorgensen II
Denmark	19	Jorgensen III
Denmark	20	Jorgensen IV
Denmark	21	Jorgensen V
Denmark	22	Jorgensen VI
Denmark	23	Schlüter
Denmark	24	Schlüter II
Denmark	25	Schlüter III
Denmark	26	Schlüter IV
Denmark	27	Schlüter V
Denmark	28	Rasmussen
Denmark	29	Rasmussen II
Denmark	30	Rasmussen III
Denmark	31	Rasmussen IV
Denmark	32	Fogh Rasmussen
Denmark	33	Fogh Rasmussen II
Denmark	34	Fogh Rasmussen III
Denmark	35	Lokke Rasmussen
Denmark	36	Thorning-Schmidt
Denmark	37	Thorning-Schmidt II
Denmark	38	Lokke Rasmussen II
Denmark	39	Lokke Rasmussen III
Denmark	40	Frederiksen

Appendix G. Cabinets in Finland

country	countrycab	name
Finland	1	Paasikivi
Finland	2	Paasikivi II
Finland	3	Pekkala
Finland	4	Fagerholm
Finland	5	Kekkonen
Finland	6	Kekkonen II

Finland	7	Kekkonen III
Finland	8	Kekkonen IV
Finland	9	Tuomioja
Finland	10	Törngren
Finland	11	Kekkonen V
Finland	12	Fagerholm II
Finland	13	Fagerholm III
Finland	14	Sukselainen
Finland	15	Sukselainen II
Finland	16	Sukselainen III
Finland	17	von Fieandt
Finland	18	Kuuskoski
Finland	19	Fagerholm IV
Finland	20	Sukselainen IV
Finland	21	Sukselainen V
Finland	22	Sukselainen VI
Finland	23	Miettunen
Finland	24	Karjalainen
Finland	25	Karjalainen II
Finland	26	Lehto
Finland	27	Virolainen
Finland	28	Paasio
Finland	29	Koivisto
Finland	30	Aura
Finland	31	Karjalainen III
Finland	32	Karjalainen IV
Finland	33	Aura II
Finland	34	Paasio II
Finland	35	Sorsa
Finland	36	Liinamaa
Finland	37	Miettunen II
Finland	38	Miettunen III
Finland	39	Sorsa II
Finland	40	Sorsa III
Finland	41	Koivisto II
Finland	42	Sorsa IV
Finland	43	Sorsa V
Finland	44	Sorsa VI
Finland	45	Holkeri
Finland	46	Holkeri II
Finland	47	Aho
Finland	48	Aho II
Finland	49	Lipponen

Finland	50	Lipponen II
Finland	51	Lipponen III
Finland	52	Jaatteenmaki
Finland	53	Vanhanen
Finland	54	Vanhanen II
Finland	55	Kiviniemi
Finland	56	Katainen
Finland	57	Katainen II
Finland	58	Stubb
Finland	59	Stubb II
Finland	60	Sipila
Finland	61	Rinne
Finland	62	Marin

Appendix H. Cabinets in France

country	countrycab	name
France	1	De Gaulle
France	2	Gouin
France	3	Bidault
France	4	Blum
France	5	Ramadier
France	6	Ramadier II
France	7	Ramadier III
France	8	Schuman I
France	9	Marie
France	10	Schuman II
France	11	Queuille I
France	12	Bidault I
France	13	Bidault II
France	14	Queuille II
France	15	Pleven I
France	16	Queuille III
France	17	Pleven II
France	18	Pleven III
France	19	Faure I
France	20	Pinay
France	21	Mayer
France	22	Laniel
France	23	Mendès France
France	24	Faure II
France	25	Faure III

France	26	Mollet I
France	27	Mollet II
France	28	Bourgès-Maunoury
France	29	Gaillard
France	30	Pflimlin
France	31	De Gaulle
France	32	Debre
France	33	Pompidou
France	34	Pompidou II
France	35	Pompidou III
France	36	Pompidou IV
France	37	Pompidou V
France	38	Couve de Mourville
France	39	Chaban-Delmas
France	40	Messmer I
France	41	Messmer II
France	42	Chirac I
France	43	Chirac II
France	44	Barre I
France	45	Barre II
France	46	Mauroy I
France	47	Mauroy II
France	48	Mauroy III
France	49	Fabius
France	50	Chirac III
France	51	Chirac IV
France	52	Rocard I
France	53	Rocard II
France	54	Rocard III
France	55	Cresson
France	56	Bèrègovoy I
France	57	Bèrègovoy II
France	58	Balladur
France	59	Juppè
France	60	Jospin I
France	61	Jospin II
France	62	Raffarin
France	63	De Villepin
France	64	Fillon I
France	65	Fillon II
France	66	Fillon III
France	67	Fillon IV
France	68	Fillon V

France	69	Ayrault I
France	70	Ayrault II
France	71	Valls I
France	72	Valls II
France	73	Cazeneuve
France	74	Philippe I
France	75	Philippe II
France	76	Castex

Appendix I. Cabinets in Germany

country	countrycab	name
Germany	1	Adenauer
Germany	2	Adenauer II
Germany	3	Adenauer III
Germany	4	Adenauer IV
Germany	5	Erhard II
Germany	6	Erhard II
Germany	7	Kiesinger
Germany	8	Brandt I
Germany	9	Brandt II
Germany	10	Schmidt
Germany	11	Schmidt II
Germany	12	Schmidt III
Germany	13	Kohl I
Germany	14	Kohl II
Germany	15	Kohl III
Germany	16	Kohl IV
Germany	17	Kohl V
Germany	18	Schroeder I
Germany	19	Schroeder II
Germany	20	Merkel I
Germany	21	Merkel II
Germany	22	Merkel III
Germany	23	Merkel IV
Germany	24	Scholz

Appendix J. Cabinets in Greece

country	countrycab	name
Greece	1	Karamanlis IV
Greece	2	Karamanlis V

Greece	3	Karamanlis VI
Greece	4	Rallis
Greece	5	Papandreou
Greece	6	Papandreou II
Greece	7	Papandreou III
Greece	8	Tzannetakis
Greece	9	Grivas
Greece	10	Zolotas
Greece	11	Zolotas II
Greece	12	Mitsotakis
Greece	13	Papandreou IV
Greece	14	Simitis
Greece	15	Simitis II
Greece	16	Simitis III
Greece	17	K.Karamanlis
Greece	18	K.Karamanlis II
Greece	19	G.Papandreou
Greece	20	Papademos
Greece	21	Pikrammenos
Greece	22	Samaras I
Greece	23	Samaras II
Greece	24	Samaras III
Greece	25	Samaras IV
Greece	26	Tsipras I
Greece	27	Thanou-Christophiliu
Greece	28	Tsipras II
Greece	29	Mitsotakis

Appendix K. Cabinets in Iceland

country	countrycab	name
Iceland	1	Thors I
Iceland	2	Thors II
Iceland	3	Stefansson
Iceland	4	Thors III
Iceland	5	Steinthorsson
Iceland	6	Thors IV
Iceland	7	Jonasson
Iceland	8	Jonsson
Iceland	9	Jonsson II
Iceland	10	Thors V
Iceland	11	Thors VI

Iceland	12	Benediktsson
Iceland	13	Benediktsson II
Iceland	14	Hafstein
Iceland	15	Johannesson
Iceland	16	Hallgrimsson
Iceland	17	Johannesson
Iceland	18	Gröndal
Iceland	19	Thoroddsen
Iceland	20	Hermansson
Iceland	21	Palsson
Iceland	22	Hermansson II
Iceland	23	Hermansson III
Iceland	24	Oddsson
Iceland	25	Oddsson II
Iceland	26	Oddsson III
Iceland	27	Oddsson IV
Iceland	28	Asgrimsson
Iceland	29	Haarde
Iceland	30	Haarde II
Iceland	31	Sigurdardottur
Iceland	32	Sigurdardottur II
Iceland	33	Gunnlaugsson
Iceland	34	Johannsson
Iceland	35	Benediktsson
Iceland	36	Jakobsdottir

Appendix L. Cabinets in Ireland

country	countrycab	name
Ireland	1	de Valera
Ireland	2	Costello
Ireland	3	de Valera II
Ireland	4	Costello II
Ireland	5	de Valera III
Ireland	6	Lemass
Ireland	7	Lemass II
Ireland	8	Lemass III
Ireland	9	Lynch
Ireland	10	Lynch II
Ireland	11	Cosgrave
Ireland	12	Lynch III
Ireland	13	Haughey

Ireland	14	FitzGerald
Ireland	15	Haughey II
Ireland	16	FitzGerald II
Ireland	17	Haughey III
Ireland	18	Haughey IV
Ireland	19	Reynolds
Ireland	20	Reynolds II
Ireland	21	Bruton
Ireland	22	Ahern
Ireland	23	Ahern II
Ireland	24	Ahern III
Ireland	25	Cowen
Ireland	26	Cowen II
Ireland	27	Kenny
Ireland	28	Kenny II
Ireland	29	Varadkar
Ireland	30	Martin

Appendix M. Cabinets in Israel

country	countrycab	name
Israel	1	Ben Gurion
Israel	2	Ben Gurion II
Israel	3	Ben Gurion III
Israel	4	Ben Gurion IV
Israel	5	Sharett
Israel	6	Sharett II
Israel	7	Ben Gurion V
Israel	8	Ben Gurion VI
Israel	9	Ben Gurion VII
Israel	10	Ben Gurion VIII
Israel	11	Eshkol
Israel	12	Eshkol II
Israel	13	Eshkol III
Israel	14	Meir
Israel	15	Meir II
Israel	16	Meir III
Israel	17	Rabin
Israel	18	Begin
Israel	19	Begin II
Israel	20	Shamir
Israel	21	Peres

Israel	22	Shamir II
Israel	23	Shamir III
Israel	24	Shamir IV
Israel	25	Rabin II
Israel	26	Peres II
Israel	27	Netanyahu
Israel	28	Barak
Israel	29	Sharon
Israel	30	Sharon II
Israel	31	Olmert
Israel	32	Netanyahu II
Israel	33	Netanyahu III
Israel	34	Netanyahu IV
Israel	35	Netanyahu V
Israel	36	Bennett

Appendix N. Cabinets in Italy

country	countrycab	name
Italy	1	De Gasperi
Italy	2	De Gasperi II
Italy	3	De Gasperi III
Italy	4	De Gasperi IV
Italy	5	De Gasperi V
Italy	6	De Gasperi VI
Italy	7	De Gasperi VII
Italy	8	Pella
Italy	9	Fanfani
Italy	10	Scelba
Italy	11	Segni
Italy	12	Zoli
Italy	13	Fanfani II
Italy	14	Segni II
Italy	15	Tambroni
Italy	16	Fanfani III
Italy	17	Fanfani IV
Italy	18	Leone
Italy	19	Moro
Italy	20	Moro II
Italy	21	Moro III
Italy	22	Leone II
Italy	23	Rumor

Italy	24	Rumor II
Italy	25	Rumor III
Italy	26	Colombo
Italy	27	Andreotti
Italy	28	Andreotti II
Italy	29	Rumor IV
Italy	30	Rumor V
Italy	31	Moro IV
Italy	32	Moro V
Italy	33	Andreotti III
Italy	34	Andreotti IV
Italy	35	Andreotti V
Italy	36	Cossiga
Italy	37	Cossiga II
Italy	38	Forlani
Italy	39	Spadolini
Italy	40	Spadolini II
Italy	41	Fanfani V
Italy	42	Craxi
Italy	43	Craxi II
Italy	44	Fanfani VI
Italy	45	Goria
Italy	46	De Mita
Italy	47	Andreotti VI
Italy	48	Andreotti VII
Italy	49	Amato
Italy	50	Ciampi
Italy	51	Berlusconi
Italy	52	Dini
Italy	53	Prodi
Italy	54	D'Alema
Italy	55	D'Alema II
Italy	56	Amato II
Italy	57	Berlusconi II
Italy	58	Berlusconi III
Italy	59	Prodi II
Italy	60	Berlusconi IV
Italy	61	Monti
Italy	62	Letta
Italy	63	Renzi
Italy	64	Gentiloni
Italy	65	Conte
Italy	66	Conte II

Appendix O. Cabinets in Luxembourg

country	countrycab	name
Luxembourg	1	Dupong
Luxembourg	2	Dupong II
Luxembourg	3	Dupong III
Luxembourg	4	Bech
Luxembourg	5	Bech II
Luxembourg	6	Frieden
Luxembourg	7	Werner
Luxembourg	8	Werner II
Luxembourg	9	Werner III
Luxembourg	10	Thorn
Luxembourg	11	Werner IV
Luxembourg	12	Santer
Luxembourg	13	Santer II
Luxembourg	14	Santer III
Luxembourg	15	Juncker
Luxembourg	16	Juncker II
Luxembourg	17	Juncker III
Luxembourg	18	Juncker IV
Luxembourg	19	Bettel
Luxembourg	20	Bettel II

Appendix P. Cabinets in Malta

country	countrycab	name
Malta	1	Boffa
Malta	2	Mizzi
Malta	3	Borg Oliver I
Malta	4	Borg Oliver II
Malta	5	Borg Oliver III
Malta	6	Mintoff
Malta	7	Borg Oliver IV
Malta	8	Borg Oliver V
Malta	9	Mintoff II
Malta	10	Mintoff III
Malta	11	Mintoff IV
Malta	12	Bonnici

Malta	13	Adami I
Malta	14	Adami II
Malta	15	Sant
Malta	16	Adami III
Malta	17	Adami IV
Malta	18	Gonzi I
Malta	19	Gonzi II
Malta	20	Muscat I
Malta	21	Muscat II
Malta	22	Abela

Appendix Q. Cabinets in the Netherlands

country	countrycab	name
Netherlands	1	Beel
Netherlands	2	Drees
Netherlands	3	Drees II
Netherlands	4	Drees III
Netherlands	5	Drees IV
Netherlands	6	Drees V
Netherlands	7	Beel II
Netherlands	8	De Quay
Netherlands	9	Marijnen
Netherlands	10	Cals
Netherlands	11	Zijlstra
Netherlands	12	De Jong
Netherlands	13	Biesheuvel
Netherlands	14	Biesheuvel II
Netherlands	15	Den Uyl
Netherlands	16	Van Agt
Netherlands	17	Van Agt II
Netherlands	18	Van Agt III
Netherlands	19	Lubbers
Netherlands	20	Lubbers II
Netherlands	21	Lubbers III
Netherlands	22	Kok I
Netherlands	23	Kok II
Netherlands	24	Balkenende I
Netherlands	25	Balkenende II
Netherlands	26	Balkenende III
Netherlands	27	Balkenende IV
Netherlands	28	Rutte

Netherlands	29	Rutte II
Netherlands	30	Rutte III
Netherlands	31	Rutte IV

Appendix R. Cabinets in Norway

country	countrycab	name
Norway	1	Gerhardsen
Norway	2	Gerhardsen II
Norway	3	Torp
Norway	4	Torp II
Norway	5	Gerhardsen III
Norway	6	Gerhardsen IV
Norway	7	Gerhardsen V
Norway	8	Lyng
Norway	9	Gerhardsen VI
Norway	10	Borten
Norway	11	Borten II
Norway	12	Bratteli
Norway	13	Korvald
Norway	14	Bratteli II
Norway	15	Nordli
Norway	16	Nordli II
Norway	17	Brundtland
Norway	18	Willoch
Norway	19	Willoch II
Norway	20	Willoch III
Norway	21	Brundtland II
Norway	22	Syse
Norway	23	Brundtland III
Norway	24	Brundtland IV
Norway	25	Jagland
Norway	26	Bondevik
Norway	27	Stoltenberg
Norway	28	Bondevik II
Norway	29	Stoltenberg II
Norway	30	Stoltenberg III
Norway	31	Solberg
Norway	32	Solberg II
Norway	33	Store

Appendix S. Cabinets in Portugal

country	countrycab	name
Portugal	1	Soares I
Portugal	2	Soares II
Portugal	3	Nobre de Costa
Portugal	4	Mota Pinto
Portugal	5	Pintassilgo
Portugal	6	Sa' Carneiro I
Portugal	7	Sa' Carneiro II
Portugal	8	Freitas do Amaral
Portugal	9	Balsemao I
Portugal	10	Balsemao II
Portugal	11	Soares III
Portugal	12	Cavaco Silva
Portugal	13	Cavaco Silva II
Portugal	14	Cavaco Silva III
Portugal	15	Guterres
Portugal	16	Guterres II
Portugal	17	Durao Barroso
Portugal	18	Santana Lopes
Portugal	19	Socrates
Portugal	20	Socrates II
Portugal	21	Passos Coelho I
Portugal	22	Passos Coelho II
Portugal	23	Costa
Portugal	24	Costa II

Appendix T. Cabinets in Spain

country	countrycab	name
Spain	1	Suarez
Spain	2	Suarez II
Spain	3	Calvo Sotelo
Spain	4	Gonzalez I
Spain	5	Gonzalez II
Spain	6	Gonzalez III
Spain	7	Gonzalez IV
Spain	8	Aznar I
Spain	9	Aznar II
Spain	10	Zapatero
Spain	11	Zapatero II

Spain	12	Rajoy
Spain	13	Rajoy II
Spain	14	Rajoy III
Spain	15	Sanchez
Spain	16	Sanchez II
Spain	17	Sanchez III

Appendix U. Cabinets in Sweden

country	countrycab	name
Sweden	1	Hansson
Sweden	2	Erlander I
Sweden	3	Erlander II
Sweden	4	Erlander III
Sweden	5	Erlander IV
Sweden	6	Erlander V
Sweden	7	Erlander VI
Sweden	8	Erlander VII
Sweden	9	Erlander VIII
Sweden	10	Erlander IX
Sweden	11	Erlander X
Sweden	12	Palme
Sweden	13	Palme II
Sweden	14	Palme III
Sweden	15	Fälldin
Sweden	16	Ullsten
Sweden	17	Fälldin II
Sweden	18	Fälldin III
Sweden	19	Palme IV
Sweden	20	Palme V
Sweden	21	Carlsson
Sweden	22	Carlsson II
Sweden	23	Bildt
Sweden	24	Carlsson III
Sweden	25	Persson I
Sweden	26	Persson II
Sweden	27	Persson III
Sweden	28	Reinfeldt
Sweden	29	Reinfeldt II

Sweden	30	Lofven
Sweden	31	Lofven II
Sweden	32	Lofven III
Sweden	33	Andersson

Appendix V. Cabinets in Switzerland

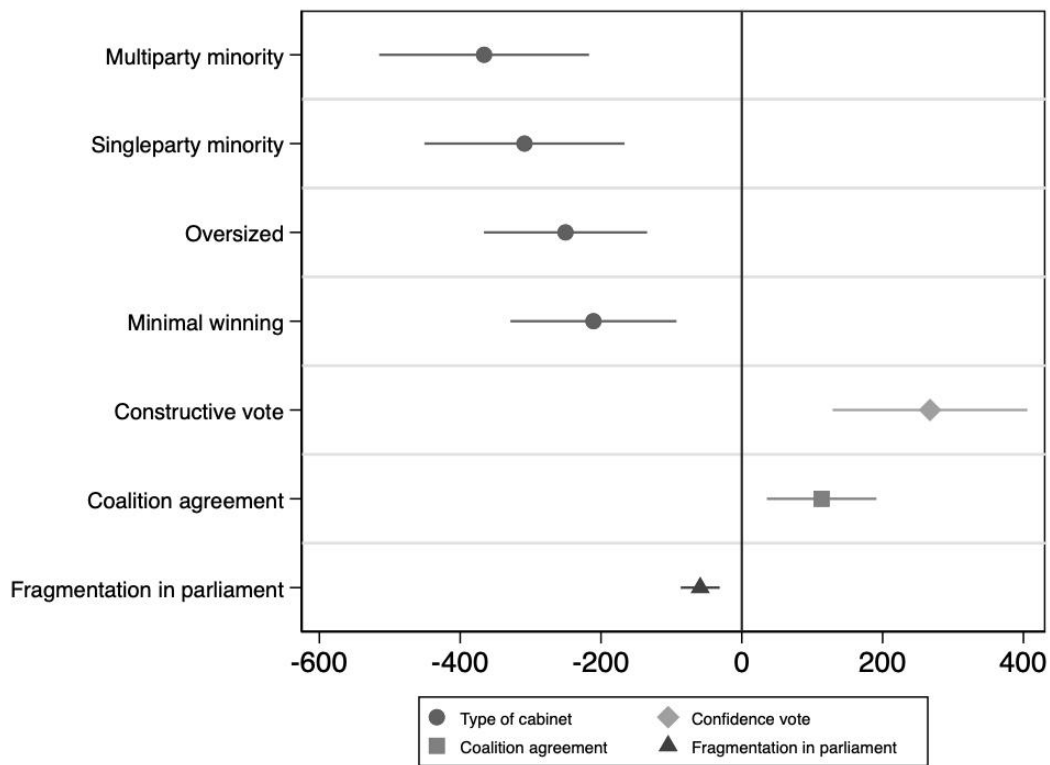
country	countrycab	name
Switzerland	1	1943
Switzerland	2	1948
Switzerland	3	1952
Switzerland	4	1954
Switzerland	5	1956
Switzerland	6	1960
Switzerland	7	1963
Switzerland	8	1968
Switzerland	9	1972
Switzerland	10	1976
Switzerland	11	1980
Switzerland	12	1984
Switzerland	13	1988
Switzerland	14	1992
Switzerland	15	1996
Switzerland	16	2000
Switzerland	17	2004
Switzerland	18	2008 (I)
Switzerland	19	2008 (II)
Switzerland	20	2009
Switzerland	21	2012
Switzerland	22	2016
Switzerland	23	2017
Switzerland	24	2018
Switzerland	25	2019
Switzerland	26	2020

Appendix W. Cabinets in the United Kingdom

country	countrycab	name
UK	1	Churchill II
UK	2	Atlee I
UK	3	Atlee II
UK	4	Churchill III

UK	5	Eden I
UK	6	Eden II
UK	7	MacMillan I
UK	8	MacMillan II
UK	9	Douglas-Home
UK	10	Wilson I
UK	11	Wilson II
UK	12	Heath
UK	13	Wilson III
UK	14	Wilson IV
UK	15	Callaghan
UK	16	Thatcher I
UK	17	Thatcher II
UK	18	Thatcher III
UK	19	Major I
UK	20	Major II
UK	21	Blair I
UK	22	Blair II
UK	23	Blair III
UK	24	Brown
UK	25	Cameron I
UK	26	Cameron II
UK	27	May
UK	28	May II
UK	29	Johnson
UK	30	Johnson II

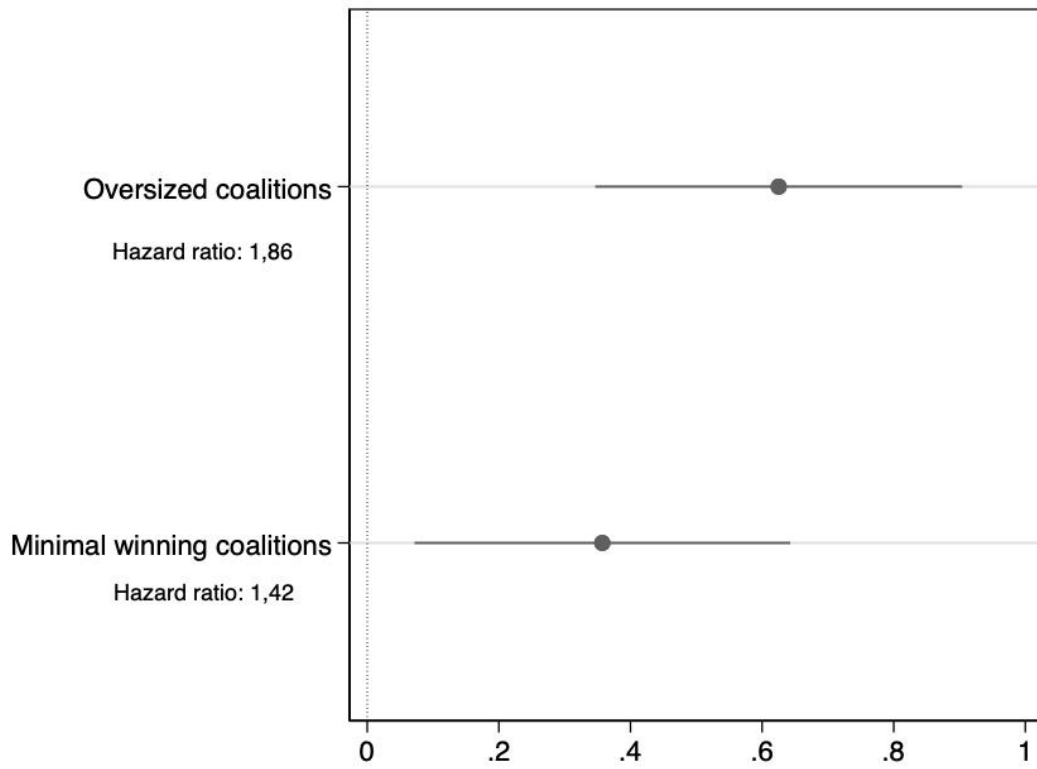
Appendix X. Robustness test of the main findings (multilevel mixed methods)



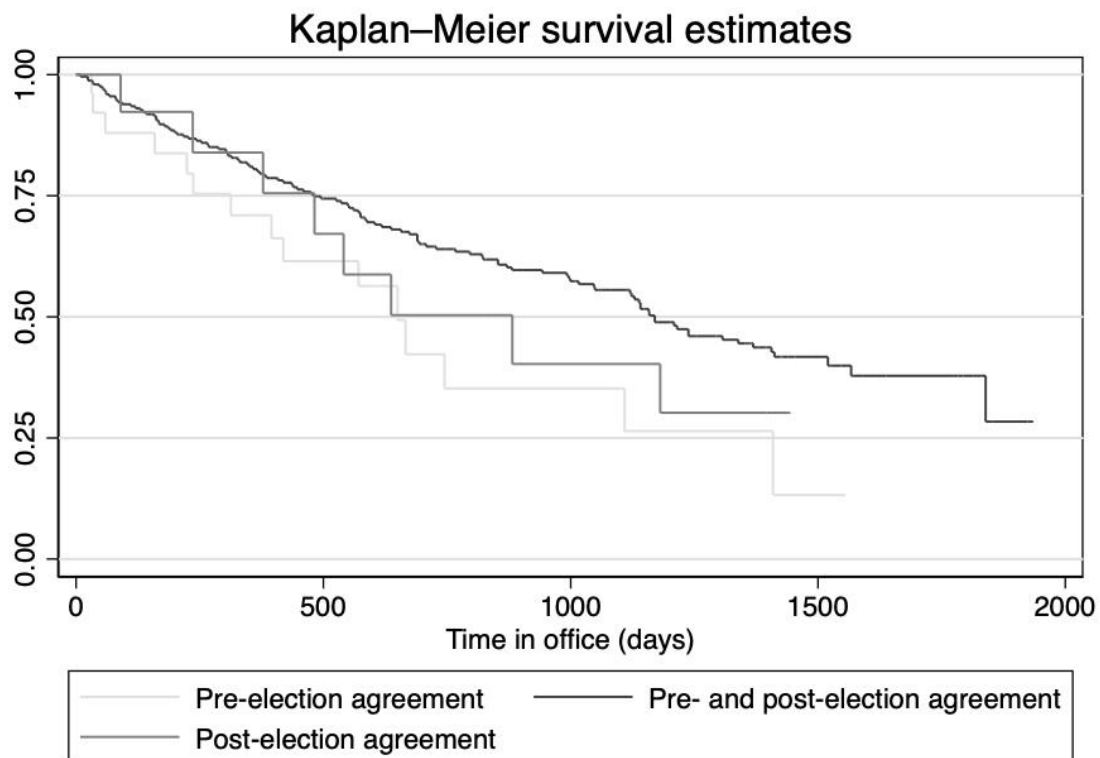
Note: Coefficient plotting of multilevel mixed methods (Schmidt-Catran and Fairbrother 2016); dependent variable is government duration in days; reference category for the type of cabinet is singleparty majority

Prior to survival techniques, scholars investigated the issue of government stability by performing linear modelling on government duration in days as the dependent variable of interest. To properly handle the hierarchical data structure utilised, I replicate the analyses by performing multilevel mixed models. The main results emerging from the survival analysis presented in the thesis hold. All type of cabinets are more unstable compared to singleparty majority solutions. The constructive vote of no confidence increases government duration. The same applies for the presence of coalition agreements. Finally, fragmentation in parliament confirms its role in negatively influencing government duration.

Appendix Z. Coefficient plotting of oversized and minimal winning coalitions



Appendix Y. Kaplan-Meier survival estimates by coalition agreements



This graph presents the survival rates of governments based on the type of coalition agreement the ruling parties agreed upon. The graph showcases that no significant difference in the median survival rates is observable between pre- and post-election agreements, despite the existence of important attributes of pre-election agreements, particularly when it comes their function vis-à-vis anticipating the impact of crucial factors of government formation and duration, such as the ideological cohesiveness of the parties forming a pre-election coalition. However, post-election agreements are able to capture and tackle the complexity of governance by establishing shared goals concerning policymaking at the time of government formation. Governments, understandably, are better equipped when the coalition partners establish both pre- and post-election agreements, effectively reducing the room for conflicts.

Appendix AA. Summary of survival-time data

Failure_d:	discretionary termination					
Analysis time:	duration					
	Time at risk	Incidence rate	Number of subjects	Survival time		
				25%	50%	75%
Total	509,418	.0006792	720	385	1019	.

Appendix AB. Description of survival-time data

	Failure_d:	discretionary termination				
	Analysis time:	duration				
Category	Total	Mean	Min	Median	Max	
Number of subjects	720					
Number of records	720	1	1	1	1	
Entry time (first)		0	0	0	0	
Exit time (final)		707.525	2	587	1935	
Subjects with gap	0					
Time on gap	0					
Time at risk	509418	707.525	2	587	1935	
Failures	346	.4805556	0	0	1	

Appendix AC. Life table for survival data (analysis time: duration; failure: termination by discretionary reasons)

Beg.	Std.									
Interval	total	Deaths	Lost	Survival	error	[95% conf. int.]				
2	3	691	2	0	0.9971	0.0020	0.9885	0.9993		
7	8	689	1	0	0.9957	0.0025	0.9866	0.9986		
8	9	688	0	1	0.9957	0.0025	0.9866	0.9986		
9	10	687	1	0	0.9942	0.0029	0.9846	0.9978		
10	11	686	0	1	0.9942		0.0029	0.9846	0.9978	
11	12	685	1	2	0.9928		0.0032	0.9827	0.9970	
12	13	682	2	0	0.9898		0.0038	0.9788	0.9951	
17	18	680	1	0	0.9884		0.0041	0.9769	0.9942	
18	19	679	1	0	0.9869		0.0043	0.9750	0.9932	
20	21	678	1	0	0.9855		0.0046	0.9732	0.9922	
22	23	677	0	1	0.9855		0.0046	0.9732	0.9922	
24	25	676	2	0	0.9826		0.0050	0.9695	0.9901	
28	29	674	1	0	0.9811		0.0052	0.9677	0.9890	
30	31	673	0	1	0.9811		0.0052	0.9677	0.9890	
31	32	672	1	1	0.9796		0.0054	0.9659	0.9879	
32	33	670	1	0	0.9782		0.0056	0.9641	0.9868	
33	34	669	1	2	0.9767		0.0058	0.9623	0.9857	
34	35	666	1	2	0.9752		0.0059	0.9605	0.9845	
35	36	663	1	0	0.9738		0.0061	0.9587	0.9834	
39	40	662	1	0	0.9723		0.0063	0.9569	0.9822	
40	41	661	0	1	0.9723		0.0063	0.9569	0.9822	
41	42	660	0	1	0.9723		0.0063	0.9569	0.9822	
42	43	659	0	1	0.9723		0.0063	0.9569	0.9822	
43	44	658	0	1	0.9723		0.0063	0.9569	0.9822	
47	48	657	2	0	0.9693		0.0066	0.9534	0.9799	
48	49	655	0	1	0.9693		0.0066	0.9534	0.9799	
49	50	654	1	0	0.9679		0.0067	0.9516	0.9787	

50	51	653	0	1	0.9679	0.0067	0.9516	0.9787
53	54	652	0	1	0.9679	0.0067	0.9516	0.9787
55	56	651	1	0	0.9664	0.0069	0.9498	0.9775
56	57	650	2	1	0.9634	0.0072	0.9463	0.9751
57	58	647	0	1	0.9634	0.0072	0.9463	0.9751
58	59	646	0	1	0.9634	0.0072	0.9463	0.9751
59	60	645	1	0	0.9619	0.0073	0.9446	0.9739
60	61	644	1	0	0.9604	0.0075	0.9428	0.9727
61	62	643	1	1	0.9589	0.0076	0.9410	0.9715
64	65	641	1	0	0.9574	0.0077	0.9393	0.9702
65	66	640	1	0	0.9559	0.0079	0.9376	0.9690
66	67	639	1	0	0.9544	0.0080	0.9358	0.9677
67	68	638	1	0	0.9529	0.0081	0.9341	0.9665
72	73	637	1	1	0.9514	0.0082	0.9324	0.9652
77	78	635	1	0	0.9499	0.0084	0.9306	0.9640
78	79	634	0	1	0.9499	0.0084	0.9306	0.9640
80	81	633	1	2	0.9484	0.0085	0.9289	0.9627
81	82	630	1	0	0.9469	0.0086	0.9272	0.9614
82	83	629	1	0	0.9454	0.0087	0.9255	0.9602
83	84	628	0	1	0.9454	0.0087	0.9255	0.9602
85	86	627	1	1	0.9439	0.0088	0.9237	0.9589
87	88	625	1	0	0.9424	0.0090	0.9220	0.9576
88	89	624	0	1	0.9424	0.0090	0.9220	0.9576
89	90	623	1	0	0.9409	0.0091	0.9203	0.9563
93	94	622	1	0	0.9394	0.0092	0.9186	0.9550
96	97	621	1	0	0.9379	0.0093	0.9168	0.9537
97	98	620	1	0	0.9364	0.0094	0.9151	0.9524
99	100	619	0	1	0.9364	0.0094	0.9151	0.9524
100	101	618	3	0	0.9318	0.0097	0.9100	0.9485
101	102	615	2	1	0.9288	0.0099	0.9066	0.9459
102	103	612	2	0	0.9257	0.0101	0.9032	0.9432
103	104	610	0	1	0.9257	0.0101	0.9032	0.9432

110	111	609	1	0	0.9242	0.0102	0.9015	0.9419
111	112	608	0	1	0.9242	0.0102	0.9015	0.9419
115	116	607	1	0	0.9227	0.0103	0.8998	0.9405
118	119	606	0	1	0.9227	0.0103	0.8998	0.9405
119	120	605	1	0	0.9212	0.0104	0.8981	0.9392
120	121	604	0	1	0.9212	0.0104	0.8981	0.9392
127	128	603	0	2	0.9212	0.0104	0.8981	0.9392
130	131	601	1	0	0.9196	0.0105	0.8964	0.9379
131	132	600	0	1	0.9196	0.0105	0.8964	0.9379
133	134	599	1	0	0.9181	0.0106	0.8947	0.9365
134	135	598	1	0	0.9166	0.0107	0.8929	0.9352
136	137	597	2	0	0.9135	0.0109	0.8895	0.9325
137	138	595	1	0	0.9120	0.0110	0.8878	0.9311
139	140	594	0	1	0.9120	0.0110	0.8878	0.9311
141	142	593	1	0	0.9104	0.0110	0.8861	0.9297
142	143	592	2	0	0.9074	0.0112	0.8827	0.9270
144	145	590	1	0	0.9058	0.0113	0.8810	0.9257
145	146	589	0	2	0.9058	0.0113	0.8810	0.9257
147	148	587	2	1	0.9027	0.0115	0.8776	0.9229
148	149	584	0	1	0.9027	0.0115	0.8776	0.9229
149	150	583	0	1	0.9027	0.0115	0.8776	0.9229
152	153	582	0	1	0.9027	0.0115	0.8776	0.9229
153	154	581	0	1	0.9027	0.0115	0.8776	0.9229
154	155	580	0	2	0.9027	0.0115	0.8776	0.9229
156	157	578	1	1	0.9012	0.0116	0.8759	0.9215
158	159	576	2	0	0.8980	0.0117	0.8725	0.9187
159	160	574	1	0	0.8965	0.0118	0.8707	0.9173
160	161	573	1	0	0.8949	0.0119	0.8690	0.9159
162	163	572	1	1	0.8933	0.0120	0.8673	0.9145
166	167	570	1	1	0.8918	0.0121	0.8656	0.9131
167	168	568	1	0	0.8902	0.0121	0.8639	0.9117
168	169	567	0	1	0.8902	0.0121	0.8639	0.9117

169	170	566	1	0	0.8886	0.0122	0.8621	0.9103
177	178	565	1	1	0.8871	0.0123	0.8604	0.9089
179	180	563	2	0	0.8839	0.0125	0.8570	0.9060
182	183	561	1	0	0.8823	0.0125	0.8552	0.9046
184	185	560	0	1	0.8823	0.0125	0.8552	0.9046
185	186	559	3	0	0.8776	0.0128	0.8501	0.9003
186	187	556	1	0	0.8760	0.0128	0.8484	0.8989
187	188	555	0	2	0.8760	0.0128	0.8484	0.8989
188	189	553	0	1	0.8760	0.0128	0.8484	0.8989
191	192	552	1	0	0.8744	0.0129	0.8466	0.8975
195	196	551	0	1	0.8744	0.0129	0.8466	0.8975
196	197	550	1	0	0.8728	0.0130	0.8449	0.8960
198	199	549	1	0	0.8712	0.0131	0.8432	0.8946
199	200	548	1	0	0.8697	0.0131	0.8415	0.8932
200	201	547	0	1	0.8697	0.0131	0.8415	0.8932
201	202	546	1	1	0.8681	0.0132	0.8397	0.8917
202	203	544	1	0	0.8665	0.0133	0.8380	0.8903
204	205	543	2	0	0.8633	0.0134	0.8346	0.8873
205	206	541	0	3	0.8633	0.0134	0.8346	0.8873
208	209	538	1	0	0.8617	0.0135	0.8328	0.8859
209	210	537	0	1	0.8617	0.0135	0.8328	0.8859
211	212	536	1	0	0.8601	0.0136	0.8311	0.8844
212	213	535	1	0	0.8585	0.0136	0.8293	0.8830
213	214	534	0	1	0.8585	0.0136	0.8293	0.8830
214	215	533	1	0	0.8568	0.0137	0.8276	0.8815
217	218	532	1	1	0.8552	0.0138	0.8259	0.8800
218	219	530	0	1	0.8552	0.0138	0.8259	0.8800
219	220	529	0	2	0.8552	0.0138	0.8259	0.8800
220	221	527	1	0	0.8536	0.0138	0.8241	0.8785
221	222	526	1	1	0.8520	0.0139	0.8224	0.8770
222	223	524	1	1	0.8504	0.0140	0.8206	0.8756
224	225	522	2	0	0.8471	0.0141	0.8171	0.8726

225	226	520	1	0	0.8455	0.0142	0.8153	0.8711
226	227	519	1	0	0.8438	0.0142	0.8136	0.8696
227	228	518	2	0	0.8406	0.0144	0.8101	0.8666
231	232	516	1	0	0.8390	0.0144	0.8083	0.8651
233	234	515	0	1	0.8390	0.0144	0.8083	0.8651
236	237	514	1	0	0.8373	0.0145	0.8066	0.8636
237	238	513	2	0	0.8341	0.0146	0.8031	0.8606
238	239	511	1	0	0.8324	0.0147	0.8014	0.8591
243	244	510	1	1	0.8308	0.0147	0.7996	0.8576
246	247	508	0	1	0.8308	0.0147	0.7996	0.8576
247	248	507	1	0	0.8292	0.0148	0.7979	0.8560
248	249	506	0	1	0.8292	0.0148	0.7979	0.8560
250	251	505	1	0	0.8275	0.0149	0.7961	0.8545
253	254	504	1	0	0.8259	0.0149	0.7943	0.8530
258	259	503	0	1	0.8259	0.0149	0.7943	0.8530
259	260	502	0	1	0.8259	0.0149	0.7943	0.8530
260	261	501	0	1	0.8259	0.0149	0.7943	0.8530
264	265	500	0	1	0.8259	0.0149	0.7943	0.8530
266	267	499	1	0	0.8242	0.0150	0.7926	0.8515
267	268	498	0	1	0.8242	0.0150	0.7926	0.8515
268	269	497	1	1	0.8226	0.0151	0.7908	0.8500
273	274	495	0	1	0.8226	0.0151	0.7908	0.8500
276	277	494	0	1	0.8226	0.0151	0.7908	0.8500
288	289	493	1	0	0.8209	0.0151	0.7890	0.8484
289	290	492	0	1	0.8209	0.0151	0.7890	0.8484
290	291	491	2	0	0.8175	0.0152	0.7854	0.8453
292	293	489	1	0	0.8159	0.0153	0.7837	0.8438
298	299	488	1	0	0.8142	0.0154	0.7819	0.8422
299	300	487	0	1	0.8142	0.0154	0.7819	0.8422
303	304	486	1	0	0.8125	0.0154	0.7801	0.8407
305	306	485	1	0	0.8108	0.0155	0.7783	0.8391
307	308	484	1	0	0.8092	0.0155	0.7765	0.8376

309	310	483	1	1	0.8075	0.0156	0.7747	0.8360
310	311	481	1	0	0.8058	0.0156	0.7730	0.8344
313	314	480	1	0	0.8041	0.0157	0.7712	0.8329
314	315	479	1	0	0.8025	0.0158	0.7694	0.8313
321	322	478	0	1	0.8025	0.0158	0.7694	0.8313
322	323	477	1	1	0.8008	0.0158	0.7676	0.8297
324	325	475	1	0	0.7991	0.0159	0.7658	0.8282
325	326	474	0	1	0.7991	0.0159	0.7658	0.8282
327	328	473	1	1	0.7974	0.0159	0.7640	0.8266
329	330	471	1	0	0.7957	0.0160	0.7622	0.8250
331	332	470	0	1	0.7957	0.0160	0.7622	0.8250
333	334	469	0	1	0.7957	0.0160	0.7622	0.8250
334	335	468	1	0	0.7940	0.0160	0.7604	0.8234
338	339	467	0	2	0.7940	0.0160	0.7604	0.8234
339	340	465	0	1	0.7940	0.0160	0.7604	0.8234
341	342	464	0	2	0.7940	0.0160	0.7604	0.8234
342	343	462	1	0	0.7923	0.0161	0.7586	0.8218
344	345	461	1	0	0.7906	0.0162	0.7568	0.8202
346	347	460	1	0	0.7888	0.0162	0.7550	0.8186
350	351	459	1	0	0.7871	0.0163	0.7531	0.8170
351	352	458	2	0	0.7837	0.0164	0.7495	0.8138
356	357	456	0	1	0.7837	0.0164	0.7495	0.8138
358	359	455	0	1	0.7837	0.0164	0.7495	0.8138
359	360	454	0	1	0.7837	0.0164	0.7495	0.8138
360	361	453	1	0	0.7820	0.0164	0.7477	0.8122
361	362	452	0	1	0.7820	0.0164	0.7477	0.8122
362	363	451	1	0	0.7802	0.0165	0.7458	0.8106
364	365	450	2	1	0.7768	0.0166	0.7422	0.8073
365	366	447	1	0	0.7750	0.0166	0.7403	0.8057
366	367	446	1	0	0.7733	0.0167	0.7385	0.8041
371	372	445	1	1	0.7715	0.0168	0.7367	0.8024
373	374	443	1	0	0.7698	0.0168	0.7348	0.8008

374	375	442	0	1	0.7698	0.0168	0.7348	0.8008
377	378	441	0	1	0.7698	0.0168	0.7348	0.8008
378	379	440	1	0	0.7681	0.0169	0.7330	0.7992
380	381	439	1	0	0.7663	0.0169	0.7311	0.7975
381	382	438	0	1	0.7663	0.0169	0.7311	0.7975
385	386	437	0	1	0.7663	0.0169	0.7311	0.7975
386	387	436	0	2	0.7663	0.0169	0.7311	0.7975
389	390	434	1	0	0.7645	0.0170	0.7293	0.7959
392	393	433	0	1	0.7645	0.0170	0.7293	0.7959
393	394	432	1	0	0.7628	0.0170	0.7274	0.7942
395	396	431	1	1	0.7610	0.0171	0.7255	0.7925
398	399	429	2	0	0.7574	0.0172	0.7218	0.7892
400	401	427	0	1	0.7574	0.0172	0.7218	0.7892
401	402	426	2	1	0.7539	0.0173	0.7181	0.7859
403	404	423	1	0	0.7521	0.0173	0.7162	0.7842
404	405	422	1	0	0.7503	0.0174	0.7143	0.7825
408	409	421	1	0	0.7485	0.0174	0.7124	0.7808
410	411	420	1	0	0.7468	0.0175	0.7106	0.7791
419	420	419	1	1	0.7450	0.0175	0.7087	0.7775
421	422	417	0	1	0.7450	0.0175	0.7087	0.7775
423	424	416	1	0	0.7432	0.0176	0.7068	0.7758
425	426	415	0	2	0.7432	0.0176	0.7068	0.7758
428	429	413	1	0	0.7414	0.0176	0.7049	0.7741
436	437	412	0	1	0.7414	0.0176	0.7049	0.7741
437	438	411	0	1	0.7414	0.0176	0.7049	0.7741
439	440	410	1	0	0.7396	0.0177	0.7030	0.7724
443	444	409	1	0	0.7378	0.0177	0.7011	0.7707
446	447	408	0	1	0.7378	0.0177	0.7011	0.7707
447	448	407	1	0	0.7360	0.0178	0.6992	0.7689
448	449	406	0	1	0.7360	0.0178	0.6992	0.7689
459	460	405	1	0	0.7341	0.0178	0.6973	0.7672
460	461	404	1	0	0.7323	0.0179	0.6954	0.7655

467	468	403	0	1	0.7323	0.0179	0.6954	0.7655
468	469	402	0	1	0.7323	0.0179	0.6954	0.7655
475	476	401	1	0	0.7305	0.0179	0.6935	0.7638
480	481	400	1	0	0.7287	0.0180	0.6916	0.7621
482	483	399	1	0	0.7268	0.0180	0.6897	0.7603
483	484	398	1	0	0.7250	0.0181	0.6878	0.7586
486	487	397	1	0	0.7232	0.0181	0.6859	0.7569
487	488	396	0	1	0.7232	0.0181	0.6859	0.7569
488	489	395	0	1	0.7232	0.0181	0.6859	0.7569
495	496	394	1	0	0.7214	0.0182	0.6839	0.7551
497	498	393	1	0	0.7195	0.0182	0.6820	0.7534
498	499	392	1	1	0.7177	0.0182	0.6801	0.7517
500	501	390	0	1	0.7177	0.0182	0.6801	0.7517
504	505	389	1	0	0.7158	0.0183	0.6782	0.7499
508	509	388	1	0	0.7140	0.0183	0.6763	0.7482
511	512	387	1	0	0.7121	0.0184	0.6743	0.7464
516	517	386	1	0	0.7103	0.0184	0.6724	0.7447
518	519	385	1	0	0.7085	0.0185	0.6705	0.7429
519	520	384	1	0	0.7066	0.0185	0.6686	0.7412
526	527	383	2	0	0.7029	0.0186	0.6647	0.7377
527	528	381	1	0	0.7011	0.0186	0.6628	0.7359
528	529	380	0	1	0.7011	0.0186	0.6628	0.7359
529	530	379	1	0	0.6992	0.0187	0.6609	0.7341
531	532	378	0	1	0.6992	0.0187	0.6609	0.7341
534	535	377	1	1	0.6974	0.0187	0.6589	0.7324
535	536	375	1	0	0.6955	0.0188	0.6570	0.7306
536	537	374	1	0	0.6936	0.0188	0.6551	0.7288
537	538	373	1	0	0.6918	0.0189	0.6531	0.7271
541	542	372	1	1	0.6899	0.0189	0.6512	0.7253
542	543	370	0	1	0.6899	0.0189	0.6512	0.7253
545	546	369	1	0	0.6881	0.0189	0.6493	0.7235
546	547	368	0	1	0.6881	0.0189	0.6493	0.7235

547	548	367	0	1	0.6881	0.0189	0.6493	0.7235
549	550	366	2	0	0.6843	0.0190	0.6454	0.7199
552	553	364	1	0	0.6824	0.0191	0.6434	0.7181
555	556	363	1	1	0.6805	0.0191	0.6415	0.7163
556	557	361	1	0	0.6786	0.0191	0.6395	0.7145
561	562	360	1	0	0.6768	0.0192	0.6375	0.7127
565	566	359	1	0	0.6749	0.0192	0.6356	0.7109
568	569	358	1	0	0.6730	0.0193	0.6336	0.7091
569	570	357	1	0	0.6711	0.0193	0.6317	0.7073
571	572	356	0	2	0.6711	0.0193	0.6317	0.7073
574	575	354	2	0	0.6673	0.0194	0.6278	0.7037
575	576	352	2	0	0.6635	0.0194	0.6238	0.7001
577	578	350	1	0	0.6616	0.0195	0.6219	0.6982
578	579	349	1	1	0.6597	0.0195	0.6199	0.6964
582	583	347	0	1	0.6597	0.0195	0.6199	0.6964
584	585	346	1	0	0.6578	0.0196	0.6180	0.6946
587	588	345	0	2	0.6578	0.0196	0.6180	0.6946
588	589	343	0	1	0.6578	0.0196	0.6180	0.6946
595	596	342	1	1	0.6559	0.0196	0.6160	0.6928
598	599	340	1	0	0.6540	0.0196	0.6140	0.6909
601	602	339	2	0	0.6501	0.0197	0.6100	0.6872
604	605	337	0	2	0.6501	0.0197	0.6100	0.6872
605	606	335	0	1	0.6501	0.0197	0.6100	0.6872
607	608	334	0	1	0.6501	0.0197	0.6100	0.6872
610	611	333	1	1	0.6482	0.0197	0.6080	0.6853
614	615	331	1	0	0.6462	0.0198	0.6060	0.6835
615	616	330	0	1	0.6462	0.0198	0.6060	0.6835
617	618	329	0	1	0.6462	0.0198	0.6060	0.6835
618	619	328	1	0	0.6442	0.0198	0.6039	0.6816
637	638	327	2	0	0.6403	0.0199	0.5999	0.6778
643	644	325	1	1	0.6383	0.0199	0.5978	0.6759
646	647	323	0	1	0.6383	0.0199	0.5978	0.6759

650	651	322	1	0	0.6363	0.0200	0.5958	0.6740
651	652	321	0	1	0.6363	0.0200	0.5958	0.6740
653	654	320	1	0	0.6343	0.0200	0.5937	0.6721
657	658	319	1	0	0.6324	0.0200	0.5917	0.6702
663	664	318	1	0	0.6304	0.0201	0.5896	0.6683
666	667	317	1	0	0.6284	0.0201	0.5876	0.6663
670	671	316	1	0	0.6264	0.0201	0.5855	0.6644
674	675	315	1	0	0.6244	0.0202	0.5835	0.6625
686	687	314	0	1	0.6244	0.0202	0.5835	0.6625
690	691	313	2	2	0.6204	0.0202	0.5794	0.6587
692	693	309	0	1	0.6204	0.0202	0.5794	0.6587
694	695	308	1	0	0.6184	0.0203	0.5773	0.6567
698	699	307	0	1	0.6184	0.0203	0.5773	0.6567
699	700	306	0	1	0.6184	0.0203	0.5773	0.6567
701	702	305	0	1	0.6184	0.0203	0.5773	0.6567
704	705	304	0	1	0.6184	0.0203	0.5773	0.6567
708	709	303	1	0	0.6163	0.0203	0.5752	0.6548
710	711	302	1	0	0.6143	0.0203	0.5731	0.6528
714	715	301	1	0	0.6123	0.0204	0.5710	0.6508
715	716	300	1	0	0.6102	0.0204	0.5689	0.6489
717	718	299	0	1	0.6102	0.0204	0.5689	0.6489
719	720	298	0	1	0.6102	0.0204	0.5689	0.6489
723	724	297	0	1	0.6102	0.0204	0.5689	0.6489
724	725	296	1	0	0.6082	0.0204	0.5668	0.6469
725	726	295	1	0	0.6061	0.0205	0.5647	0.6449
728	729	294	1	0	0.6040	0.0205	0.5625	0.6429
733	734	293	0	1	0.6040	0.0205	0.5625	0.6429
745	746	292	0	1	0.6040	0.0205	0.5625	0.6429
748	749	291	0	2	0.6040	0.0205	0.5625	0.6429
750	751	289	0	1	0.6040	0.0205	0.5625	0.6429
761	762	288	1	0	0.6019	0.0206	0.5604	0.6409
763	764	287	0	1	0.6019	0.0206	0.5604	0.6409

764	765	286	2	0	0.5977	0.0206	0.5561	0.6368
767	768	284	1	0	0.5956	0.0207	0.5539	0.6348
768	769	283	1	0	0.5935	0.0207	0.5517	0.6328
773	774	282	2	0	0.5893	0.0208	0.5474	0.6287
774	775	280	0	1	0.5893	0.0208	0.5474	0.6287
779	780	279	0	1	0.5893	0.0208	0.5474	0.6287
782	783	278	1	0	0.5872	0.0208	0.5452	0.6267
787	788	277	0	1	0.5872	0.0208	0.5452	0.6267
790	791	276	1	0	0.5851	0.0208	0.5431	0.6246
794	795	275	0	1	0.5851	0.0208	0.5431	0.6246
796	797	274	2	0	0.5808	0.0209	0.5387	0.6205
799	800	272	1	0	0.5787	0.0209	0.5365	0.6184
807	808	271	1	0	0.5765	0.0210	0.5343	0.6164
817	818	270	0	1	0.5765	0.0210	0.5343	0.6164
821	822	269	2	0	0.5722	0.0210	0.5299	0.6122
823	824	267	1	1	0.5701	0.0210	0.5277	0.6101
825	826	265	1	0	0.5679	0.0211	0.5255	0.6081
829	830	264	0	1	0.5679	0.0211	0.5255	0.6081
830	831	263	1	0	0.5658	0.0211	0.5233	0.6060
832	833	262	0	1	0.5658	0.0211	0.5233	0.6060
833	834	261	0	1	0.5658	0.0211	0.5233	0.6060
834	835	260	0	1	0.5658	0.0211	0.5233	0.6060
839	840	259	0	1	0.5658	0.0211	0.5233	0.6060
840	841	258	1	0	0.5636	0.0211	0.5211	0.6038
853	854	257	2	0	0.5592	0.0212	0.5166	0.5996
854	855	255	0	1	0.5592	0.0212	0.5166	0.5996
866	867	254	0	1	0.5592	0.0212	0.5166	0.5996
871	872	253	0	3	0.5592	0.0212	0.5166	0.5996
874	875	250	1	1	0.5570	0.0212	0.5143	0.5974
881	882	248	1	0	0.5547	0.0213	0.5120	0.5953
882	883	247	1	0	0.5525	0.0213	0.5097	0.5931
883	884	246	1	0	0.5502	0.0213	0.5074	0.5909

887	888	245	0	1	0.5502	0.0213	0.5074	0.5909
888	889	244	1	0	0.5480	0.0214	0.5051	0.5887
893	894	243	1	0	0.5457	0.0214	0.5028	0.5865
894	895	242	0	1	0.5457	0.0214	0.5028	0.5865
899	900	241	1	0	0.5434	0.0214	0.5005	0.5843
904	905	240	1	2	0.5412	0.0215	0.4982	0.5821
913	914	237	0	1	0.5412	0.0215	0.4982	0.5821
916	917	236	1	0	0.5389	0.0215	0.4958	0.5799
921	922	235	0	1	0.5389	0.0215	0.4958	0.5799
922	923	234	0	1	0.5389	0.0215	0.4958	0.5799
932	933	233	0	1	0.5389	0.0215	0.4958	0.5799
941	942	232	0	1	0.5389	0.0215	0.4958	0.5799
943	944	231	1	0	0.5365	0.0215	0.4934	0.5777
948	949	230	0	1	0.5365	0.0215	0.4934	0.5777
949	950	229	0	1	0.5365	0.0215	0.4934	0.5777
950	951	228	1	0	0.5342	0.0216	0.4910	0.5754
963	964	227	0	1	0.5342	0.0216	0.4910	0.5754
988	989	226	0	1	0.5342	0.0216	0.4910	0.5754
996	997	225	1	0	0.5318	0.0216	0.4886	0.5731
997	998	224	1	0	0.5294	0.0216	0.4862	0.5708
998	999	223	0	1	0.5294	0.0216	0.4862	0.5708
999	1000	222	1	1	0.5271	0.0217	0.4837	0.5685
1007	1008	220	0	1	0.5271	0.0217	0.4837	0.5685
1011	1012	219	1	0	0.5246	0.0217	0.4813	0.5662
1016	1017	218	1	0	0.5222	0.0217	0.4788	0.5638
1017	1018	217	0	1	0.5222	0.0217	0.4788	0.5638
1019	1020	216	1	0	0.5198	0.0218	0.4763	0.5615
1027	1028	215	0	1	0.5198	0.0218	0.4763	0.5615
1032	1033	214	0	1	0.5198	0.0218	0.4763	0.5615
1037	1038	213	0	1	0.5198	0.0218	0.4763	0.5615
1043	1044	212	0	1	0.5198	0.0218	0.4763	0.5615
1045	1046	211	0	1	0.5198	0.0218	0.4763	0.5615

1047	1048	210	0	1	0.5198	0.0218	0.4763	0.5615
1049	1050	209	1	0	0.5173	0.0218	0.4738	0.5591
1054	1055	208	0	1	0.5173	0.0218	0.4738	0.5591
1057	1058	207	0	1	0.5173	0.0218	0.4738	0.5591
1058	1059	206	1	0	0.5148	0.0218	0.4712	0.5567
1062	1063	205	0	2	0.5148	0.0218	0.4712	0.5567
1070	1071	203	0	1	0.5148	0.0218	0.4712	0.5567
1074	1075	202	0	1	0.5148	0.0218	0.4712	0.5567
1081	1082	201	0	1	0.5148	0.0218	0.4712	0.5567
1084	1085	200	1	0	0.5122	0.0219	0.4686	0.5542
1091	1092	199	0	2	0.5122	0.0219	0.4686	0.5542
1094	1095	197	0	1	0.5122	0.0219	0.4686	0.5542
1098	1099	196	1	1	0.5096	0.0219	0.4659	0.5517
1101	1102	194	0	1	0.5096	0.0219	0.4659	0.5517
1106	1107	193	1	0	0.5070	0.0220	0.4631	0.5491
1109	1110	192	1	1	0.5043	0.0220	0.4604	0.5466
1110	1111	190	1	0	0.5017	0.0221	0.4577	0.5440
1113	1114	189	0	1	0.5017	0.0221	0.4577	0.5440
1118	1119	188	1	0	0.4990	0.0221	0.4550	0.5414
1119	1120	187	1	0	0.4964	0.0221	0.4522	0.5389
1120	1121	186	0	2	0.4964	0.0221	0.4522	0.5389
1123	1124	184	1	0	0.4937	0.0222	0.4495	0.5363
1124	1125	183	0	1	0.4937	0.0222	0.4495	0.5363
1129	1130	182	1	0	0.4909	0.0222	0.4467	0.5337
1130	1131	181	1	0	0.4882	0.0223	0.4439	0.5310
1136	1137	180	2	0	0.4828	0.0223	0.4383	0.5258
1138	1139	178	0	1	0.4828	0.0223	0.4383	0.5258
1141	1142	177	2	1	0.4773	0.0224	0.4327	0.5205
1148	1149	174	0	1	0.4773	0.0224	0.4327	0.5205
1150	1151	173	0	1	0.4773	0.0224	0.4327	0.5205
1158	1159	172	1	0	0.4746	0.0225	0.4299	0.5178
1159	1160	171	1	0	0.4718	0.0225	0.4271	0.5151

1161	1162	170	0	1	0.4718	0.0225	0.4271	0.5151
1170	1171	169	0	3	0.4718	0.0225	0.4271	0.5151
1177	1178	166	0	1	0.4718	0.0225	0.4271	0.5151
1181	1182	165	1	0	0.4689	0.0226	0.4241	0.5124
1192	1193	164	1	1	0.4661	0.0226	0.4212	0.5096
1202	1203	162	0	1	0.4661	0.0226	0.4212	0.5096
1203	1204	161	0	1	0.4661	0.0226	0.4212	0.5096
1209	1210	160	1	0	0.4631	0.0226	0.4182	0.5068
1215	1216	159	1	0	0.4602	0.0227	0.4152	0.5040
1221	1222	158	0	1	0.4602	0.0227	0.4152	0.5040
1237	1238	157	1	0	0.4573	0.0227	0.4122	0.5012
1238	1239	156	0	2	0.4573	0.0227	0.4122	0.5012
1255	1256	154	0	1	0.4573	0.0227	0.4122	0.5012
1256	1257	153	0	1	0.4573	0.0227	0.4122	0.5012
1263	1264	152	1	0	0.4543	0.0228	0.4091	0.4983
1274	1275	151	0	1	0.4543	0.0228	0.4091	0.4983
1278	1279	150	0	1	0.4543	0.0228	0.4091	0.4983
1280	1281	149	0	1	0.4543	0.0228	0.4091	0.4983
1283	1284	148	1	0	0.4512	0.0228	0.4060	0.4953
1287	1288	147	0	1	0.4512	0.0228	0.4060	0.4953
1289	1290	146	0	1	0.4512	0.0228	0.4060	0.4953
1294	1295	145	0	1	0.4512	0.0228	0.4060	0.4953
1295	1296	144	0	1	0.4512	0.0228	0.4060	0.4953
1297	1298	143	0	1	0.4512	0.0228	0.4060	0.4953
1298	1299	142	0	1	0.4512	0.0228	0.4060	0.4953
1305	1306	141	0	1	0.4512	0.0228	0.4060	0.4953
1307	1308	140	0	1	0.4512	0.0228	0.4060	0.4953
1315	1316	139	0	1	0.4512	0.0228	0.4060	0.4953
1322	1323	138	1	0	0.4479	0.0229	0.4026	0.4922
1336	1337	137	0	1	0.4479	0.0229	0.4026	0.4922
1337	1338	136	0	1	0.4479	0.0229	0.4026	0.4922
1339	1340	135	0	1	0.4479	0.0229	0.4026	0.4922

1349	1350	134	0	1	0.4479	0.0229	0.4026	0.4922
1352	1353	133	0	1	0.4479	0.0229	0.4026	0.4922
1357	1358	132	0	1	0.4479	0.0229	0.4026	0.4922
1361	1362	131	0	1	0.4479	0.0229	0.4026	0.4922
1363	1364	130	0	1	0.4479	0.0229	0.4026	0.4922
1365	1366	129	0	1	0.4479	0.0229	0.4026	0.4922
1367	1368	128	0	1	0.4479	0.0229	0.4026	0.4922
1369	1370	127	1	0	0.4444	0.0230	0.3989	0.4889
1377	1378	126	0	1	0.4444	0.0230	0.3989	0.4889
1380	1381	125	0	1	0.4444	0.0230	0.3989	0.4889
1381	1382	124	0	1	0.4444	0.0230	0.3989	0.4889
1384	1385	123	0	1	0.4444	0.0230	0.3989	0.4889
1390	1391	122	0	1	0.4444	0.0230	0.3989	0.4889
1394	1395	121	0	1	0.4444	0.0230	0.3989	0.4889
1395	1396	120	0	1	0.4444	0.0230	0.3989	0.4889
1396	1397	119	0	1	0.4444	0.0230	0.3989	0.4889
1397	1398	118	0	2	0.4444	0.0230	0.3989	0.4889
1405	1406	116	0	2	0.4444	0.0230	0.3989	0.4889
1406	1407	114	1	0	0.4405	0.0231	0.3948	0.4852
1409	1410	113	1	0	0.4366	0.0232	0.3907	0.4816
1410	1411	112	0	2	0.4366	0.0232	0.3907	0.4816
1411	1412	110	0	1	0.4366	0.0232	0.3907	0.4816
1412	1413	109	0	1	0.4366	0.0232	0.3907	0.4816
1414	1415	108	0	1	0.4366	0.0232	0.3907	0.4816
1415	1416	107	0	1	0.4366	0.0232	0.3907	0.4816
1417	1418	106	0	1	0.4366	0.0232	0.3907	0.4816
1419	1420	105	0	1	0.4366	0.0232	0.3907	0.4816
1420	1421	104	0	1	0.4366	0.0232	0.3907	0.4816
1421	1422	103	0	2	0.4366	0.0232	0.3907	0.4816
1424	1425	101	0	1	0.4366	0.0232	0.3907	0.4816
1425	1426	100	0	1	0.4366	0.0232	0.3907	0.4816
1426	1427	99	0	4	0.4366	0.0232	0.3907	0.4816

1427	1428	95	0	2	0.4366	0.0232	0.3907	0.4816
1428	1429	93	0	1	0.4366	0.0232	0.3907	0.4816
1430	1431	92	0	1	0.4366	0.0232	0.3907	0.4816
1431	1432	91	0	1	0.4366	0.0232	0.3907	0.4816
1434	1435	90	0	1	0.4366	0.0232	0.3907	0.4816
1435	1436	89	0	1	0.4366	0.0232	0.3907	0.4816
1436	1437	88	0	1	0.4366	0.0232	0.3907	0.4816
1437	1438	87	0	1	0.4366	0.0232	0.3907	0.4816
1438	1439	86	0	1	0.4366	0.0232	0.3907	0.4816
1439	1440	85	0	2	0.4366	0.0232	0.3907	0.4816
1440	1441	83	0	1	0.4366	0.0232	0.3907	0.4816
1443	1444	82	0	1	0.4366	0.0232	0.3907	0.4816
1444	1445	81	0	1	0.4366	0.0232	0.3907	0.4816
1445	1446	80	0	1	0.4366	0.0232	0.3907	0.4816
1446	1447	79	0	1	0.4366	0.0232	0.3907	0.4816
1448	1449	78	0	2	0.4366	0.0232	0.3907	0.4816
1451	1452	76	0	1	0.4366	0.0232	0.3907	0.4816
1452	1453	75	0	1	0.4366	0.0232	0.3907	0.4816
1455	1456	74	0	3	0.4366	0.0232	0.3907	0.4816
1457	1458	71	0	1	0.4366	0.0232	0.3907	0.4816
1460	1461	70	0	15	0.4366	0.0232	0.3907	0.4816
1461	1462	55	0	1	0.4366	0.0232	0.3907	0.4816
1462	1463	54	0	1	0.4366	0.0232	0.3907	0.4816
1466	1467	53	1	0	0.4284	0.0242	0.3806	0.4753
1476	1477	52	0	1	0.4284	0.0242	0.3806	0.4753
1484	1485	51	0	1	0.4284	0.0242	0.3806	0.4753
1489	1490	50	0	2	0.4284	0.0242	0.3806	0.4753
1496	1497	48	0	2	0.4284	0.0242	0.3806	0.4753
1497	1498	46	0	1	0.4284	0.0242	0.3806	0.4753
1500	1501	45	0	1	0.4284	0.0242	0.3806	0.4753
1503	1504	44	0	1	0.4284	0.0242	0.3806	0.4753
1507	1508	43	0	1	0.4284	0.0242	0.3806	0.4753

1509 1510	42	0	1	0.4284	0.0242	0.3806	0.4753
1520 1521	41	1	0	0.4179	0.0258	0.3671	0.4679
1526 1527	40	0	1	0.4179	0.0258	0.3671	0.4679
1534 1535	39	0	1	0.4179	0.0258	0.3671	0.4679
1545 1546	38	0	1	0.4179	0.0258	0.3671	0.4679
1546 1547	37	0	1	0.4179	0.0258	0.3671	0.4679
1550 1551	36	0	1	0.4179	0.0258	0.3671	0.4679
1555 1556	35	0	1	0.4179	0.0258	0.3671	0.4679
1567 1568	34	1	1	0.4055	0.0279	0.3506	0.4595
1571 1572	32	0	1	0.4055	0.0279	0.3506	0.4595
1589 1590	31	0	1	0.4055	0.0279	0.3506	0.4595
1593 1594	30	0	1	0.4055	0.0279	0.3506	0.4595
1599 1600	29	0	1	0.4055	0.0279	0.3506	0.4595
1638 1639	28	0	1	0.4055	0.0279	0.3506	0.4595
1660 1661	27	0	1	0.4055	0.0279	0.3506	0.4595
1677 1678	26	0	1	0.4055	0.0279	0.3506	0.4595
1703 1704	25	0	1	0.4055	0.0279	0.3506	0.4595
1716 1717	24	0	1	0.4055	0.0279	0.3506	0.4595
1743 1744	23	0	1	0.4055	0.0279	0.3506	0.4595
1772 1773	22	0	2	0.4055	0.0279	0.3506	0.4595
1775 1776	20	0	1	0.4055	0.0279	0.3506	0.4595
1784 1785	19	0	1	0.4055	0.0279	0.3506	0.4595
1794 1795	18	0	2	0.4055	0.0279	0.3506	0.4595
1798 1799	16	0	1	0.4055	0.0279	0.3506	0.4595
1813 1814	15	0	2	0.4055	0.0279	0.3506	0.4595
1815 1816	13	0	1	0.4055	0.0279	0.3506	0.4595
1819 1820	12	0	1	0.4055	0.0279	0.3506	0.4595
1821 1822	11	0	1	0.4055	0.0279	0.3506	0.4595
1823 1824	10	0	1	0.4055	0.0279	0.3506	0.4595
1824 1825	9	0	1	0.4055	0.0279	0.3506	0.4595
1830 1831	8	0	1	0.4055	0.0279	0.3506	0.4595
1839 1840	7	0	1	0.4055	0.0279	0.3506	0.4595

1846	1847	6	0	1	0.4055	0.0279	0.3506	0.4595
1852	1853	5	0	1	0.4055	0.0279	0.3506	0.4595
1894	1895	4	0	1	0.4055	0.0279	0.3506	0.4595
1904	1905	3	0	1	0.4055	0.0279	0.3506	0.4595
1924	1925	2	0	1	0.4055	0.0279	0.3506	0.4595
1935	1936	1	0	1	0.4055	0.0279	0.3506	0.4595

Appendix AD. Legislative terms under investigation

<u>country</u>	<u>legislature</u>
Austria	1945-1949
Austria	1945-1949
Austria	1949-1953
Austria	1949-1953
Austria	1953-1956
Austria	1956-1959
Austria	1959-1962
Austria	1959-1962
Austria	1959-1962
Austria	1962-1966
Austria	1962-1966
Austria	1966-1970
Austria	1970-1971
Austria	1971-1975
Austria	1975-1979
Austria	1979-1983
Austria	1983-1986
Austria	1983-1986
Austria	1986-1990
Austria	1990-1994
Austria	1994-1995
Austria	1995-1999
Austria	1995-1999
Austria	1999-2002
Austria	2002-2006
Austria	2006-2008
Austria	2008-2013
Austria	2013-2017
Austria	2013-2017
Austria	2017-2019

Austria	2017-2019
Austria	2019-
Austria	2019-
Austria	2019-
<hr/>	
Belgium	1946-1949
Belgium	1946-1949
Belgium	1946-1949
Belgium	1946-1949
Belgium	1946-1949
Belgium	1949-1950
Belgium	1950-1954
Belgium	1950-1954
Belgium	1950-1954
Belgium	1954-1958
Belgium	1958-1961
Belgium	1958-1961
Belgium	1961-1965
Belgium	1965-1968
Belgium	1965-1968
Belgium	1968-1971
Belgium	1971-1974
Belgium	1971-1974
Belgium	1974-1977
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Belgium	1978-1981
Belgium	1978-1981
Belgium	1978-1981
Belgium	1978-1981
Belgium	1978-1981
Belgium	1981-1985
Belgium	1985-1987
Belgium	1985-1987
Belgium	1987-1991
Belgium	1991-1995
Belgium	1991-1995
Belgium	1995-1999
Belgium	1999-2003
Belgium	1999-2003
Belgium	2003-2007
Belgium	2007-2010

Belgium	2007-2010
Belgium	2007-2010
Belgium	2007-2010
Belgium	2010-2014
Belgium	2014-2019
Belgium	2014-2019
Belgium	2019-2024
Belgium	2019-2024
Belgium	2019-2024
Cyprus	1970-1976
Cyprus	1970-1976
Cyprus	1970-1976
Cyprus	1970-1976
Cyprus	1976-1981
Cyprus	1976-1981
Cyprus	1976-1981
Cyprus	1978-1983
Cyprus	1983-1988
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Cyprus	2008-2013
Cyprus	2013-2018
Cyprus	2013-2018
Cyprus	2013-2018
Cyprus	2018-
Denmark	1945-1947
Denmark	1947-1950
Denmark	1947-1950
Denmark	1950-1953
Denmark	1953-1953
Denmark	1953-1957
Denmark	1953-1957
Denmark	1957-1960
Denmark	1957-1960
Denmark	1960-1964
Denmark	1960-1964

Denmark	1964-1966
Denmark	1966-1968
Denmark	1968-1971
Denmark	1971-1973
Denmark	1971-1973
Denmark	1973-1975
Denmark	1975-1977
Denmark	1977-1979
Denmark	1977-1979
Denmark	1979-1981
Denmark	1981-1984
Denmark	1981-1984
Denmark	1984-1987
Denmark	1987-1988
Denmark	1988-1990
Denmark	1990-1994
Denmark	1990-1994
Denmark	1994-1998
Denmark	1994-1998
Denmark	1998-2001
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