
The Length of Service of Cabinet Ministers in Chile's Presidential Democracy, 1990–2022

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Cabinet shuffles in multiparty democracies do not equally affect all posts as they are caused by changes in the composition of government coalitions and by shifting political conditions. With data from the 340 individual cabinet appointments in Chile's presidential system in seven presidential terms (1990–2022), we find that the type of cabinet position and prior experience as cabinet ministers impact the length of service, but party members do not last longer than independents and neither do ministers with technocratic credentials. Ministers in low-prestige positions are less likely to be sacked. As cabinet stability is associated with the delivery of public policies, studying the determinants of longer cabinet positions helps identify factors that contribute to governability and good governance.

Keywords: cabinet duration, cabinet formation, cabinet minister survival, personal traits, presidential system cabinets.

Government stability facilitates the implementation of government reform agendas and the delivery of public policies. Frequent cabinet shuffles undermine stability and slow down the implementation of the government agenda. Although cabinet also offer an opportunity for the government to reset its priorities and adapt to new political conditions, a cabinet reshuffle is also a sign that the government needs to shift course to get back on the right track.

Prior articles on cabinets in multiparty Latin American democracies focus on the reasons cabinet shuffles happen and use cabinet survival as the unit of analysis. Here, we shift the focus to assess the determinants of the length of service of individual ministers, and we use cabinet members as the unit of analysis. Studies on cabinet shuffles in multiparty presidential democracies argue that changes in the composition of the ruling coalition, political crises, policy switches and strategic moves by the chief executive to reset the agenda explain cabinet changes. Moral hazard and adverse selection concerns also play a role in the executive's decision to shuffle cabinets. In line with our approach, some studies have suggested that individual traits, including party affiliation, prior experience and technocratic credentials impact the survival of individual ministers.

We assess if individual attributes and factors associated to the type of ministerial appointment account for the length of service of cabinet members. We postulate four hypotheses associated with individual traits and a fifth hypothesis associated with the type of cabinet appointment. We use data from Chile's multiparty presidential democracy in seven terms between 1990 and 2022 to test the hypotheses. Presidents made 340 cabinet appointments for an average length of service of 727 days, with the longest serving ministers in a single appointment lasting the entire six-year term, and the shortest lasting only three days. As the country had stable multiparty coalitions for the period of study

(1990–2022), Chile offers an opportunity to assess the impact of individual and party level attributes on the length of service. The two coalitions that governed during the 32-year period were comprised primarily of the same parties. None of the parties switched coalitions. That offers a high level of coalition stability among Latin American multiparty democracies. After presenting our case and the results, we finish by discussing the implications for the larger study of cabinet shuffles and cabinet survival in multiparty presidential democracies.

The Length of Service of Cabinet Ministers

The study on the composition of cabinets has attracted considerable attention in presidential and parliamentary systems (Lijphart, 1981, Diermeier and Stevenson, 1999; Somer-Topcu and Williams, 2008; Helms and Vercesi, 2022). Cabinet reshuffles are used by the executive to reduce moral hazard (Indridason and Kam, 2008; Martínez-Gallardo and Schleiter, 2015) and to reduce adverse selection problems (Dewan and Dowding, 2005; Huber and Martínez-Gallardo, 2008). In presidential systems, where the president might not be the leader of the ruling party, presidents might appoint independents to the cabinet to minimise principal-agent problems, moral hazard, adverse selection and agency loss (Dowding and Dumont, 2015; Chaisty et al., 2018). Moral hazard is associated with agents engaging in risky actions because the principal, not the agent, is liable for the consequences. Adverse selection refers to the agents (the ministers’) knowledge of their own abilities and intentions, which the principal (the president) lacks. Both problems might lead to agency loss, meanings that the appointment of the minister will not pay off for the president who made the appointment (Dowding and Dumont, 2009, 2015).

In multiparty democracies, whenever the executive power shuffles the cabinet, the stability of the ruling coalition is tested (Huber and Martínez Gallardo, 2008). Although institutional design rules impact the duration of cabinets (Inácio, Llanos and Pinheiro, 2022) and duration is not the same as durability – with the former being the time a cabinet lasts and the latter being the prediction of how the cabinet would have lasted based on the institutional design and other priors – (Laver, 2003), an unstable ruling coalition finds it more difficult to implement its programme. Moreover, as a cabinet shuffle creates new risks of agency loss (Martínez-Gallardo and Schleiter, 2015), recurrent cabinet shuffles weaken chief executives and undermine their ability to carry out electoral mandates. Even when the chief executive has low approval and shuffles the cabinet to reset the agenda, or when they do so to respond to critical events (Camerlo and Pérez-Liñán, 2015a), cabinet instability is costly and carries risks.

Cabinet shuffles inevitably impact the length of service for individual ministers. Yet while the former respond to what the president thinks is best for the government, the latter focuses on what attributes account for the length of service of a cabinet minister. Presidents who favour an executive prerogative strategy tend to appoint ministers loyal to the president, whereas those who stick to implementing a set of predefined policy priorities appoint more party members to secure support for the government agenda in the legislature (Amorim Neto, 2006). Escobar-Lemmon and Taylor-Robinson (2005) consider that ‘political recruitment is impacted by supply components which include candidates’ motivations and political capital (e.g., financial assets, party experience, connections, occupational and educational qualifications, legislative skills)’ while the demand side ‘is determined by those who select candidates and decide the qualifications needed’ (Escobar-Lemmon and Taylor-Robinson, 2005: 830).

The length of service of a minister is impacted by the critical events that trigger cabinet shuffles (Huber and Martínez-Gallardo, 2008; Martínez Gallardo, 2014). In strong governments ‘leaders have great leeway to consolidate their control over the cabinet’ (Camerlo and Pérez-Liñán, 2015b: 331), whereas weak presidents shuffle cabinets ‘to overcome their political and institutional limitations’ (Martínez-Gallardo, 2014: 26). The chief executive might fear that a popular minister will challenge his or her leadership and will shuffle the cabinet to dissuade challenges (Quiroz Flores, 2016: 38). The patterns of ministerial duration are also impacted by a country’s traditions and institutional structure (Blondel, 1985: 164–165).

Personal attributes also impact the length of service. Cabinet ministers seek to ‘demonstrate competence and loyalty’ (Quiroz Flores, 2016: 10), although they ‘also pursue their own agendas’

(Quiroz Flores, 2016: 19). Cabinet changes can be triggered by ‘the presence of “undesirables” and “opportunists”’ (Camerlo and Pérez-Liñán, 2015b: 316). Portfolio reallocation studies – the appointment and removal of individual ministers – focus on the ‘explanations that underscore the role of critical events and individual attributes above and beyond partisanship’ (Camerlo and Pérez-Liñán, 2015b: 316). Among those are gender, technical skills, party affiliation and political trajectories (Olivares, 2022: 134).

Institutional factors and the personal traits of ministers often interact. The executive cares not only about policies but also about who can advance those policies. For that reason, presidents nominate people who ‘bring to the cabinet not only the support of their party in the legislature, but also the support of other social groups, their political capital or technical expertise’ (Camerlo and Martínez-Gallardo, 2017: 207). Presidents ‘shield their favourite policies by protecting key cabinet members’ and technocrats ‘who are less vulnerable to the pressures of political parties and constituents, guarantees policy continuity’ (Camerlo and Pérez-Liñán, 2015b, 315).

While studies on cabinet stability and cabinet survival use the cabinet as the unit of analysis (Amorim Neto, 2006; Martínez-Gallardo and Schleiter, 2015, Inácio, Llanos and Pinheiro, 2022), studies on the survival of ministers focus on individuals (Dowding and Dumont, 2009; Camerlo and Pérez-Liñán, 2015a; Quiroz Flores, 2016; González-Bustamante and Garrido-Vergara, 2018: 33). In presidential systems, when the minister is the unit of analysis, the focus is on their ability ‘to survive on the front line of the executive branch’ (Olivares, 2022: 6). Diermeier and Stevenson distinguish between the two approaches. The first seeks to ‘identify a robust set of co-variables that influence mean cabinet duration’ and the other to ‘determine the stochastic process that governs cabinet survival’ (Diermeier and Stevenson, 1999).

Appointing Independents to the Cabinet

When the president leads a multiparty coalition, there are moral hazard, adverse selection and agency loss problems. For ministers with expertise in their field, if their loyalty lies elsewhere, presidents will experience agency loss. As Martínez-Gallardo and Scheilter (2015) argue, because party members might be more loyal to the party than to the chief executive – even when the executive is a member of the same party – by appointing party members, the moral hazard problem might be bigger in presidential than in parliamentary democracies where the party leader and the chief executive are normally the same person.

Presidents treat ministers as relief valves to decompress turbulent situations (Camerlo and Pérez-Liñán, 2015a). Heterogeneous shocks induce the executive to implement strategies depending on the electoral calendar and on term-limits rules. Presidents who aspire to win re-election will keep ministers who can help achieve that goal but will fire ministers involved in corruption scandals (Camerlo and Pérez-Liñán, 2015a).

However, in presidential democracies with multiparty coalitions, presidents might appoint party members and party leaders to build stronger legislative support and reduce moral hazard and agency loss (González Bustamante, 2023: 5–7). Cabinet ministers who are member of a different party might have priorities that differ from those of the chief executive, creating a moral hazard problem for the president. More parties in the ruling coalition limit the room for presidents to appoint personally loyal independents since all parties that comprise the coalition push to have more presence in the cabinet (González Bustamante, 2023: 7). González-Bustamante reports that, in periods of low presidential approval, the likelihood of termination increases more for partisan ministers than for non-partisans (González Bustamante, 2023: 12–13). Still, in those cases, we would expect parties to have a strong influence on cabinet formation and, as a result, it will be more costly for the president to fire party members than independents. Consequently, our first hypothesis postulates the following:

Hypothesis 1 Party members last longer in their cabinet posts than independents.

Membership in the President's Party

Being a party member is an important determinant of cabinet appointments in parliamentary (Strom, Budge, and Laver, 1994) and presidential democracies (Martínez-Gallardo and Schleiter, 2015). Taagepera reckons that the number of parties in the cabinet and the relative weight of each party – including the chief executive's party – matters for cabinet stability (Taagepera 2002, 228). In multiparty presidential democracies, the seat share for the president's party or coalition in the legislature also impacts the composition of the cabinet (Amorim Neto, 2006). In fact, appointing party leaders can be 'complementary to the strategy of forming coalitions to circumvent legislative blockages' (González Bustamante, 2023: 7). In multiparty democracies, presidents often form minimum winning coalitions by appointing ministers from other parties (Amorim Neto, 2006; Martínez-Gallardo, 2014: 7). However, cabinet ministers might switch parties and the partisan ties might not always reflect a strong alliance with the party in the legislature (Camerlo and Martínez-Gallardo, 2017: 214).

Because presidents care not only about policy but also about the composition of their ruling coalition, they might be constrained by the relative weight of each coalition party when shuffling the cabinet. That can potentially induce them to fire ministers from their parties as a relief valve. Thus, to reduce the moral hazard problem and keep a stable multiparty coalition together, presidents might sacrifice ministers from their own party to accommodate other parties in the coalition. Thus, our second hypothesis suggests the following:

Hypothesis 2 Ministers who are members of the president's party last shorter in their cabinet posts.

Past Cabinet Experience

When forming their cabinets, presidents consider the 'need for legislative support, but also the need for technical expertise and political loyalty' (Camerlo and Martínez-Gallardo, 2017, 212). Ministerial appointments may depend on the experience of the appointee, especially for defence, interior or foreign affairs (Beckman, 2006: 127; Claveria and Verge, 2015: 822). In multiparty presidential democracies, ministers with past cabinet experience can help strike a balance between the president's goals and the challenges associated with forming a ruling coalition. Cabinet service is often an additional step in a long professional career (Blondel and Müller-Rommel, 1997). Many politicians who leave a cabinet post return in subsequent years (Claveria and Verge, 2015: 821; González-Bustamante and Garrido-Vergara, 2018: 33).

People with past cabinet experience should be less prone to making unforced errors or getting themselves in trouble. As people with prior experience build a reputation, presidents can use that reputation as a shortcut to reduce the moral hazard problem when appointing ministers. Consequently, ministers with an established reputation should be less likely to be sacked. Thus, we propose a third hypothesis as follows:

Hypothesis 3 Ministers with past cabinet experience last longer in their cabinet posts than first-time ministers.

As technocrats build legitimacy on the superiority of scientific knowledge (Centeno, 1993: 313; Centeno and Silva, 1998), they occasionally adopt policies that contravene the preferences of their democratically elected superiors (Dargent, 2015). In recent decades in Latin America, economists have dominated in technocratic posts and in handling macroeconomic policy (Centeno and Silva, 1998 and Dargent, 2015). Having impeccable academic credentials, especially in economics or quantitative social sciences, is often used as a shortcut for identifying technocrats. Some studies assume that technocrats are not party members – as party members are normally elected legislators that join the cabinet (Costa Pinto et al., 2018), but technocratic credentials need not be mutually exclusive with having membership in a political party, especially in presidential democracies.

As technocrats have traits that help presidents reduce information asymmetries, when a loyal technocrat is appointed to the cabinet, there should be lower risk of agency loss. Camerlo and Pérez-Liñán find that technocrats last longer when the president is popular and can claim credit for successful policies (Camerlo and Pérez-Liñán, 2015b, 331). González-Bustamante and Olivares (2016) report that

having prestigious academic careers increases the chances of survival, but González-Bustamante (2023, 14-15) warns that, under low presidential approval, non-partisan technocratic ministers do not have higher survival rates than other non-partisan ministers. Because there is discrepancy on the impact of technocratic credentials on length of service, we postulate a fourth hypothesis as follows:

Hypothesis 4 Technocrats appointed to the cabinet last longer in their cabinet posts than ministers with other attributes.

The type of cabinet position might also impact the length of service. There are different criteria to establish the importance of cabinet positions (Thies, 2001; Druckman and Warwick, 2005; Bäck and Dumont, 2011 and Martínez-Gallardo and Schleiter, 2015). Camerlo and Martínez Gallardo (2022) identify four dimensions associated to the capacity of: implementing public policies, discretionary spending, exercising political power and the bureaucratic capacity. They argue that, for typical non-institutionalised party systems prevalent in Latin America, each dimension weighs differently in each case (2022: 6–7), but they do not apply their criteria to rank ministries to specific cases (2022: 2). As some cabinet ministries are structurally more influential in shaping policy, having presence in the media or impacting the distribution of resources, the cost of sacking a cabinet minister will partially depend on the cabinet position. Escobar-Lemmon and Taylor-Robinson (2005:33) group ministries as high, medium and low-prestige. As high prestige ministers are more visible, whenever presidents have to shuffle their cabinets, they should be more inclined to sack important ministers to signal that change is coming. Accordingly, we postulate a hypothesis that associates the type of ministry with the length of cabinet survival:

Hypothesis 5 Ministers in cabinet positions of less prestige last longer in their cabinet posts than those appointed to more prestigious positions.

The Case of Chile

Chile is a presidential democracy with an institutionalised party system where most cabinet ministers are party members. Chilean governments have been comprised by stable multiparty coalitions since democracy was restored in 1990. As the number of ministers in the cabinet is set by law and multiparty coalitions have been highly stable, following Seawright and Gerring's typology (2008), Chile is an influential case to understand cabinet stability in Latin American presidential democracies.

Studies of the Chilean elites have included the composition of the cabinet as a constitutive element (Gonzalez Bustamante, 2013). Those studies often rely on social and relational capital to account for the composition of electoral elites, like legislative candidates, legislators (Joignant, 2014) and constitutional convention members (Jofré, 2021). Previous research highlights the importance of technocrats in cabinets (Silva, 2008; Dávila, 2011, 2020; Joignant, 2014 and Olivares, 2022), including the period before the 1973 democratic breakdown (Silva, 1991, 2008). There has been more stability in post-1990 cabinets due to the presence of multiparty ruling coalitions (Sivelis and Baruch Galván, 2015; Dávila, 2020 and Olivares, 2022: 135). Yet affiliation to the president's party does not impact the chances of a minister's length of service (Olivares, 2022: 136–137).

Between 1990 and 2022, there were two stable multiparty coalitions – the centre-left Concertación (New Majority since 2014) and the centre-right Let's Go Chile. There was a strong presence of party leaders in the cabinets in the first years of the 1990–2010 period and experienced ministers in subsequent years (Dávila, Olivares Lavados and Avendaño, 2013: 88). Avendaño and Dávila (2012) and Dávila, Olivares Lavados and Avendaño (2013) report strong rotation of ministers under Concertación governments. González-Bustamante and Olivares (2016: 102) find that women and high prestige academic professors increase the chances of survival. Other show that party members are more likely to be sacked (González-Bustamante and Olivares, 2016; Olivares, 2022: 136). Technocratic attributes are increasingly more present in the members of the cabinet (González-Bustamante and Olivares, 2016; Olivares, 2022: 136) and so is having prior work experience in think-tanks (Olivares et al., 2014). Since most studies – except Jofré and Navia (2017), Dávila (2020), Olivares (2022) and González Bustamante (2023) – focus on cabinets under centre-left administrations, some of those findings might be influenced by the ideology of the government in power. Except Dávila et al. (2013), who propose

their own classification for cabinet types, most studies on survival of cabinet ministers in Chile do not consider the type of cabinet appointment as a determinant of length of service.

Here, we study seven consecutive administrations between 1990 and 2022. Between 1990 and 2010, there were four consecutive Concertación multiparty coalition administrations led by Christian Democratic presidents Patricio Aylwin and Eduardo Frei and social democratic/socialist presidents Ricardo Lagos and Michelle Bachelet – the first woman elected president. Since 2010, the country experienced alternation in power. In 2010, Sebastián Piñera, a businessman and former senator reached the presidency as the leader of the centre-right Let's Go Chile coalition. In 2014, Bachelet returned to power, leading an expanded left-wing New Majority coalition. In 2018, Piñera returned to power.

In his twenty-member first cabinet, Aylwin only appointed one woman and replaced five of his initial ministers in his four-year term. Frei and Lagos made more shuffles in their cabinets. In 2006, Bachelet appointed a cabinet composed of an equal number of men and women and, honouring a campaign pledge ('no second servings,' as she put it), Bachelet brought new faces to the cabinet. In 2010, Piñera became the first right-wing president since the restoration of democracy. He appointed people with impeccable academic credentials and without much legislative or political party experience (Jofré and Navia, 2017:56). Becoming the first person to serve a second term, in 2014, Bachelet moved the coalition to the left, bringing in the Communist Party and renaming it New Majority. Upon taking office for a second term in March 2018, Piñera appointed several ministers from his first term who were personally loyal to him. A surprising national uprising, the subsequent start of a constitution writing process and the Covid-19 pandemic brought a social and political crisis that led Piñera to appoint more ministers than any other previous administration – including the two 6-year presidents – since democracy was restored.

Methodology

We collected data on the sociodemographic traits and political trajectories of the 340 persons appointed to cabinet posts in the seven presidential administrations in Chile between 1990 and 2022. That includes the centre-left governments of Patricio Aylwin (1990–1994), Eduardo Frei (1994–2000), Ricardo Lagos (2000–2006) and Michelle Bachelet (2006–2010, 2014–2018) and the centre-right governments of Sebastián Piñera (2010–2014, 2018–2022). Comparing our data with Dávila et al. (2013) for 1990–2010 and their updated presidential cabinet dataset for 1990–2022 (available in the Presidential Cabinet Projects <https://www.presidentialcabinets.org/>), they report 252 cabinet appointments in the period while we recorded 340 individual cabinet appointments. Dávila et al. (2013) report 23, 41, 41, 35, 45, 41 and 26 appointments for each of the seven terms, for a total of 252. We found 26, 53, 53, 45, 52, 47 and 64, for a total of 340.

Unlike studies that focus on the survival of the entire cabinet (Amorim Neto, 2006; Martínez-Gallardo and Schleiter, 2015; Inácio, Llanos and Pinheiro, 2022), we focus on the length of service of individual ministers. Like Camerlo and Pérez-Liñán (2015a) and Olivares (2022), we use Cox regression (Breslow method for ties) models (Cox, 1972) and report the odds ratio of length of service for individual ministers. In the descriptive section, we present the Kaplan–Meier survival estimates to show the chances of ministerial removal given certain individual traits. Following González-Bustamante and Olivares (2016) and Olivares (2022), we record the precise date each minister assumed and left office. We classify individuals by their ministerial posts. The range of days they held those posts goes from 3 to 2192 (a full six-year term, with two leap years included). We recorded the year of birth, sex, academic degrees, prior elected or appointed political positions, party affiliation and party leadership position.

Our dependent variable is the number of days that a minister stayed in a post. Other studies use the number of months – especially those studies that use Kaplan–Meier survival estimates for their empirical analysis – but the number of days in office is a more precise indicator of the length of service. Table 1 shows the breakdown of cabinet survival by each administration. Two facts stand out. First, the cabinet minister average survival has been on the decline, especially since the presidential term was reduced to four years, and the survival of cabinet ministers in Piñera's two terms was lower than the rest. Second, Piñera appointed more independents than any of other president. This suggests that either there are differences between right-wing and left-wing government coalition dynamics, or that Piñera is an outlier in that he relied more than other presidents on independents when appointing cabinet

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Table 1. Survival of Cabinet Appointments by Type of Ministry, Chile, 1990–2022

| Presidential term | Max cabinet members | No. ministerial appointments | Average survival (no. days) | Independents | |
|----------------------|---------------------|------------------------------|-----------------------------|--------------|-----------------------------|
| | | | | No. | Average survival (no. days) |
| Aylwin (1990–1994) | 20 | 26 | 1064.5 | 3 | 1150.3 |
| Frei (1994–2000) | 20 | 53 | 799.4 | 5 | 1013.4 |
| Lagos (2000–2006) | 20 | 53 | 845.9 | 5 | 902.6 |
| Bachelet (2006–2010) | 22 | 45 | 681.4 | 4 | 993.3 |
| Piñera (2010–2014) | 23 | 52 | 641.6 | 23 | 713.6 |
| Bachelet (2014–2018) | 23 | 47 | 715.0 | 7 | 627.3 |
| Piñera (2018–2022) | 24 | 64 | 543.5 | 26 | 541.9 |
| Total | 24 | 340 | 727.3 | 73 | 710.9 |

Source: Authors, with data collected from different sources.

ministers. Anecdotal evidence suggests that previous right-wing presidents (Alessandri, 1958–1964) also relied heavily on independents when appointing their cabinets (Jofré and Navia, 2017).

Our independent variable for Hypothesis 1 is party membership. We coded ministers as party members (78.5 percent) or independents (21.5 percent). The independent variable for Hypothesis 2 is membership in the president's party (26.8 percent) – for Aylwin and Frei, Christian Democratic Party (PDC); for Lagos, Socialist Party (PS) and Party for Democracy (PPD); for Bachelet, PS, and for Piñera, National Renewal (RN) – although Piñera became an independent before assuming office in 2010, he had been a long-term RN member. The independent variable for Hypothesis 3 is prior cabinet appointment (19.4 percent). The independent variable for Hypothesis 4 is technocratic condition. The pathway to become a technocrat is through a graduate academic degree, normally in economics (Montecinos, 1998 and Dávila, 2011). Our indicator is if the person had a Ph.D. in social or natural sciences (14.4 percent). As a robustness check, not shown in the paper, we also estimated the models for persons with a master's or a PhD in economics (11.5 percent and 12.6 percent, respectively) and found similar results. Notice that while in other places, technocratic credentials are associated with not being a party member, in the case of Chile many technocrats are also party members (Costa Pinto et al. 2018).

The independent variable for Hypothesis 5 is the type of cabinet position. Rather than build our own categorisation, we rely on two previously used criteria. First, following Escobar-Lemmon and Taylor-Robinson (2005: 833), we classified ministers based on their area of responsibility: high, medium and low-prestige ministries (24.5 percent, 57.8 percent and 17.7 percent). Second, we follow Dávila et al. (2013), who classified ministries in Chilean cabinets as political, social and economic (26.9 percent, 35.1 percent and 38.0 percent). Camerlo and Martínez Gallardo (2022) propose a detailed criteria to classify the importance of ministries in less institutionalised party systems. Their criteria have been applied to classify cabinet positions in Mexico (Cuevas, 2022), Panama (Barragán Manjón, 2022), Honduras (Rodríguez Balmaceda, 2022) and the Dominican Republic (Sánchez & Belén, 2022). Because Chile has a more institutionalised party system and more stability in the composition of cabinet over the years, we use the simpler criterion proposed by Escobar-Lemmon and Taylor-Robinson (2005) and the criterion already used for Chile proposed by Dávila et al. (2013). Table 2 shows the classification for Chilean ministries.

As control variables, we include cabinet shuffles. We also identify ministers switched to another post (rather than just fired), their gender, age the time of appointment, appointments in the first cabinet of the term, former service as legislators and prior high-level position in a political party. In Chile, since 2005, presidents can appoint sitting legislators to the cabinet, but those legislators need to resign to their legislative seats and cannot return to the legislature unless they win a seat in a future election. We also control by presidential terms. Some studies also control by a right-censoring variable, identifying the ministers who served for the entire presidential term. In Chile, in the seven terms, there were only 37 (10.9 percent) ministers who served for the entire term. And 40 percent of those were in the 1990–1994 term. In three terms, there three or fewer ministers who served for the entire period. So, we do not use that right-censoring variable. Table 3 shows the descriptive statistics for the variables.

Table 2. Classification of Cabinet Positions by Their Type, Chile, 1990–2022

| Cabinet position | Dávila et al. (2013) | Escobar-Lemmon and Taylor-Robinson (2005) |
|-------------------------------------|----------------------|---|
| Interior | Political ministry | High prestige |
| Presidency Secretariat (Segpres) | Political ministry | High prestige |
| Government’s Spokesperson (Segegob) | Political ministry | High prestige |
| Finance | Economic ministry | High prestige |
| Foreign Affairs | Political ministry | High prestige |
| Defence | Political ministry | High prestige |
| Economics | Economic ministry | Medium prestige |
| Public works | Economic ministry | Medium prestige |
| Labour | Economic ministry | Medium prestige |
| Transportation | Economic ministry | Medium prestige |
| Mining | Economic ministry | Medium prestige |
| Energy | Economic ministry | Medium prestige |
| Agriculture | Economic ministry | Medium prestige |
| Environment | Economic ministry | Medium prestige |
| Social Development | Social ministry | Medium prestige |
| Education | Social ministry | Medium prestige |
| Justice | Social ministry | Medium prestige |
| Housing | Social ministry | Medium prestige |
| Health | Social ministry | Medium prestige |
| Culture | Social ministry | Low prestige |
| National Lands | Economic ministry | Low prestige |
| Science and Technology | Economic ministry | Low prestige |
| Women | Social ministry | Low prestige |
| Sports | Social ministry | Low prestige |

Source: Authors using Dávila et al. (2013) and Escobar-Lemmon and Taylor-Robinson (2005).

Data Description

Table 4 shows the average length of service for ministers by attributes. Ministers who were party members lasted longer than independents, and ministers who were members of the president’s party lasted even longer. Ministers in the four-year Aylwin cabinet lasted longer than in any other government – including the six-year governments. The average length of stay was lowest under the two 4-year right-wing Piñera administrations.

Figure 1 shows Kaplan–Meier survival estimates for cabinet ministers by different personal attributes. Party members and those in the president’s party last slightly less than others. When the end of the term nears, ministers with past cabinet experience tend to leave the cabinet at higher rates. There is no difference in the survival rate of ministers with technocratic credentials and other ministers. Ministers in positions of high and medium prestige last less than others, signalling that ministers in low-prestige positions successfully are not bargaining chips during cabinet shuffles but successfully fly under the radar. Those appointed to low-prestige positions last longer than people appointed to higher prestige ministries. The Kaplan–Meier survival estimates for ministers who were switched to other posts show that they last longer than others, which points to presidents switching cabinet ministers to another post to avoid bringing new faces to the cabinet.

Results

Table 5 shows Cox regression (Breslow method for ties) models on the number of days of service of individual cabinet ministers for the 340 appointments made in Chile between 1990 and 2022. The models show the risk ratios of length of service – odds ratios. Values between 0 and 1 indicate lower

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Table 3. Descriptive Statistics for the Dependent and Independent Variables

| Variable | N | Mean | Std. dev. | Min | Max |
|--|-----|-------|-----------|-------|-------|
| Dependent Variable: Number of days in cabinet position | 340 | 727.3 | 2192 | 472.9 | 3 |
| H1: Party member | 340 | 0.785 | 0.411 | 0 | 1 |
| H1: Independent | 340 | 0.215 | 0.411 | 0 | 1 |
| H2: Member of the president's party | 340 | 0.294 | 0.456 | 0 | 1 |
| H3: Prior cabinet appointment | 340 | 0.194 | 0.396 | 0 | 1 |
| H4: Technocrat (PhD in social Science) | 340 | 0.144 | 0.352 | 0 | 1 |
| H4: Technocrat (Economist PhD) | 340 | 0.115 | 0.319 | 0 | 1 |
| H4: Technocrat (Economist MA or PhD) | 340 | 0.126 | 0.333 | 0 | 1 |
| H5: High prestige | 340 | 0.247 | 0.432 | 0 | 1 |
| H5: Medium prestige | 340 | 0.588 | 0.493 | 0 | 1 |
| H5: Low prestige | 340 | 0.165 | 0.371 | 0 | 1 |
| H5: Political ministry | 340 | 0.276 | 0.448 | 0 | 1 |
| H5: Social ministry | 340 | 0.329 | 0.471 | 0 | 1 |
| H5: Economic ministry | 340 | 0.394 | 0.489 | 0 | 1 |
| Switched to another cabinet position | 340 | 0.250 | 0.434 | 0 | 1 |
| Age | 340 | 51.95 | 8.857 | 30.21 | 71.82 |
| Gender | 340 | 0.244 | 0.430 | 0 | 1 |
| Appointed in first cabinet in presidential term | 340 | 0.438 | 0.497 | 0 | 1 |
| Former legislator | 340 | 0.162 | 0.369 | 0 | 1 |
| Former high-level position in a political party | 340 | 0.147 | 0.355 | 0 | 1 |

Source: Authors, with data collected from different sources.

chances of being sacked – a longer length of service – while the values above 1 indicate higher chances of being terminated – a shorter length of service.

The first hypothesis suggests that party members last longer than independents, but the models fail to show that. Chilean parties might be essential for the government to advance its agenda and build support in the legislature, but party membership is not an important determinant of the length of service of ministers. These results lend support to the claim that, fearing agency loss and moral hazard problems, presidents appoint independents to the cabinet along with party members and strive to protect – avoid sacking – those that are loyal to him when there is a cabinet shuffle, regardless of whether those ministers are party members or independents. Since there is no difference in the length of service of independents and party members, presidents might not see independents as intrinsically more personally loyal to the president than party members.

For the second hypothesis, as the party of the president should be ideologically and strategically closer to the president than other parties in the ruling coalition, we expect that membership in the president's party would increase the chances of serving longer. Although the odds ratios point in that direction, the effect is not statistically significant. An alternative reading would predict the opposite. Precisely because presidents can sack ministers who are members of their party without inducing discontent in the multiparty coalition, ministers from the president's party could be used as a relief valve. The results fail to discard any of those associations.

Hypothesis 3 suggests that ministers with past cabinet experience last longer. The models in Table 5 are consistent with that expectation. Ministers with past cabinet experience might be recruited for more challenging posts and, thus, might be more exposed to fire from the opposition. Ministers who had prior cabinet experience might be switched to other positions in a cabinet shuffle. Yet people with prior cabinet experience tend to have a lengthier length of service. That suggests that some individual attributes, like experience, matter in explaining the length of service.

Hypothesis 4 suggests that people with technocratic credentials last longer in their cabinet posts. The models fail to show that association. Given the strong presence of technocrats in Chilean cabinets

Table 4. Length of Service by Ministerial Attributes, Chile, 1990–2022

| Traits of ministers | No. Ministers | Average days in cabinet |
|---|---------------|-------------------------|
| H1: Party member | 267 | 731.8 |
| H1: Independent | 73 | 710.9 |
| H2: Member of the president's party | 100 | 759.7 |
| H3: Prior cabinet appointment | 66 | 732.7 |
| H4: Technocrat (PhD in natural/social sciences) | 49 | 661.5 |
| H5: High prestige | 84 | 695.6 |
| H5: Medium prestige | 200 | 708.4 |
| H5: Low prestige | 56 | 842.4 |
| H5: Political ministry | 94 | 621.6 |
| H5: Social ministry | 112 | 770.8 |
| H5: Economic ministry | 134 | 773.6 |
| Switched to another post | 85 | 592.8 |
| Women | 83 | 730.7 |
| Appointed in first cabinet in presidential term | 149 | 905.2 |
| Former legislator | 55 | 624.3 |
| Former high-level position in a political party | 48 | 667.5 |
| Aylwin | 26 | 1064.5 |
| Frei | 53 | 799.4 |
| Lagos | 53 | 845.9 |
| Bachelet I | 45 | 681.4 |
| Piñera I | 52 | 641.6 |
| Bachelet II | 47 | 715.0 |
| Pinera II | 64 | 543.5 |
| All | 340 | 727.3 |

Source: Authors', with data collected from different sources.

(Silva, 2008), this might be somewhat surprising. But as presidents rely heavily on technocrats for post that present complex challenges, those technocrats were in risky positions in the political trenches and, thus, they could have been more vulnerable during cabinet shuffles. Thus, only one of the four hypotheses that associate personal traits with a longer survival in the cabinet has a positive statistically significant effect in the expected direction. Having prior experience in the cabinet is associated with a longer length of service, but other personal attributes do not explain the length of service of ministers in the cabinet in Chile.

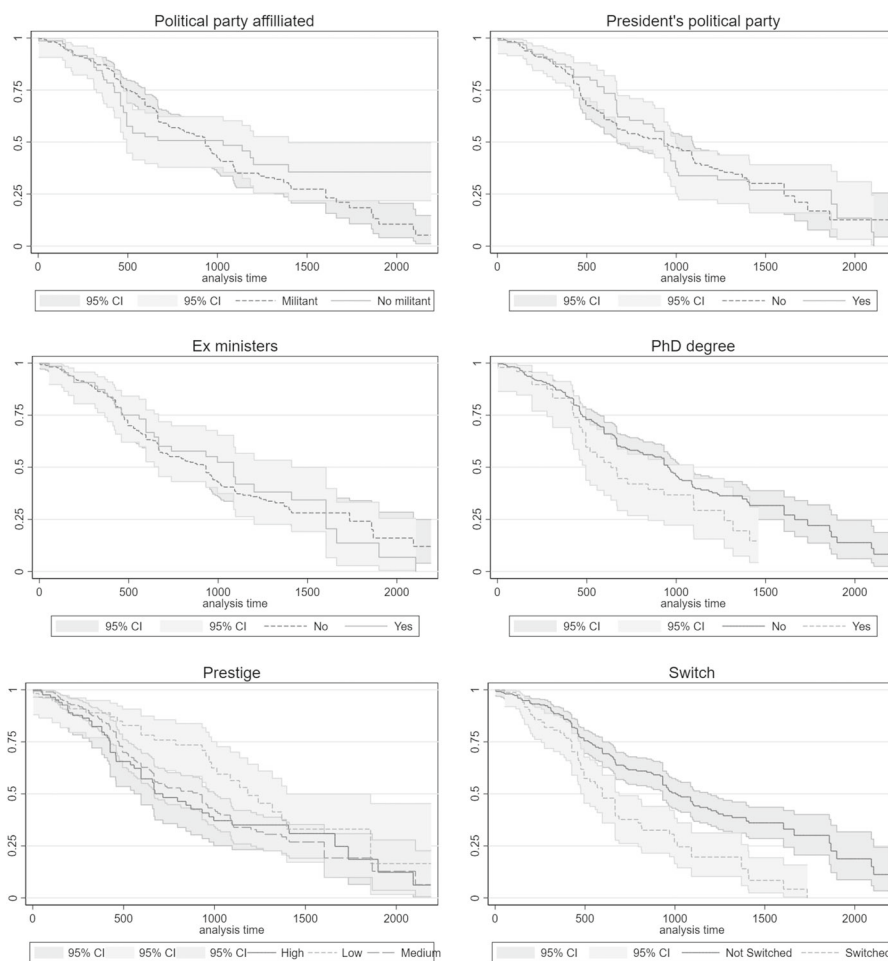
Hypothesis 5 focuses on the type of cabinet post people are appointed to as factors that impact the length of service. The models are consistent with that claim. People appointed to political ministries are more likely to be sacked earlier than those appointed to economic and social ministries. In turn, people appointed to low-prestige ministries have a longer length of service than those appointed to high prestige ministries. Ministers appointed to less important positions can stay under the radar when cabinet shuffles are made. When presidents adjust their cabinets, political ministers or those in a high prestige ministry are more likely to be sacked than people in less prestigious positions. The type of cabinet appointment is an important determinant of the length of service.

The effect of the control variables confirms our findings. Being a former legislator is associated with a shorter length of service. This is probably associated to the fact that presidents often appoint active legislators when they shuffle their cabinets – not in their first cabinets. Thus, as they enter the cabinet halfway into the term, those former legislators have a shorter length of service. Not surprisingly, those appointed to the first cabinet are more likely to be sacked sooner, as presidents normally shuffle their cabinets in their first year as a result of crises or to fine tune the government. Age and gender do not impact the length of service. Having a prior political party leadership position does not impact cabinet survival, either.

We also include a control for those ministers who were switched to another post in the cabinet. That variable has a significant effect. The implications of this control variable are important. A cabinet

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Figure 1. Survival Estimates for Cabinet Ministers for Ministers in Chile, 1990–2022. .



Source: Authors, with data collected from different sources

ministry shuffle does not automatically result in the person leaving the cabinet. For example, in the second Piñera administration, Alfredo Moreno – who served as minister of foreign affairs in the first Piñera administration – was appointed minister of social development in March 2018 and charged with the complex task of ending the conflict with the indigenous communities in the Araucanía Region. 16 months into his term, Moreno was switched (June 2019) to the Ministry of Public Works. Our findings, then, suggest that the length of service of ministers is partly explained by their prior cabinet experience, but also, the position the person is appointed to helps explain why some ministers last longer than others.

Conclusions

With data from Chile's presidential democracy from 1990 to 2022, we show that prior cabinet experience and the type of ministry the person occupies accounts for the length of service in the cabinet. Being a party member, as opposed to being an independent, affiliation with the president's party and

Table 5. Cox Regression (Breslow Method for Ties) Models on Length of Service of Cabinet Ministers in Chile, 1990–2022 (Odd Ratios)

| Variables | Model 1 | Model 2 | Model 3 |
|-------------------------------------|---------------------|---------------------|---------------------|
| H1: Party member | 1.038 (0.239) | 0.905 (0.215) | 0.956 (0.224) |
| H2: Member of the president's party | 0.838 (0.160) | 0.826 (0.158) | 0.786 (0.151) |
| H3: Past cabinet experience | 0.677* (0.139) | 0.590** (0.125) | 0.575*** (0.122) |
| H4: Ph.D. social sciences/economics | 1.425 (0.313) | 1.347 (0.295) | 1.353 (0.300) |
| H5: Social ministry | | | |
| H5: Political ministry | | 1.895*** (0.380) | |
| H5: Economic ministry | | 1.240 (0.239) | |
| H5: High prestige | | | 0.809 (0.156) |
| H5: Medium prestige | | | 0.422*** (0.121) |
| H5: Low prestige | | | 1.201 (0.243) |
| Woman | 0.976 (0.187) | 0.959 (0.193) | 1.201 (0.243) |
| Age at appointment | 1.009 (0.010) | 1.008 (0.0100) | 1.009 (0.0103) |
| Former legislator | 1.601** (0.376) | 1.548* (0.364) | 1.540* (0.358) |
| Appointed in first cabinet | 1.976*** (0.322) | 2.088*** (0.342) | 2.092*** (0.342) |
| Former party leader position | 0.929 (0.232) | 0.839 (0.212) | 0.922 (0.228) |
| Cabinet switch | 1.720*** (0.296) | 1.629*** (0.283) | 1.732*** (0.299) |
| Frei term (1994–2000) | 1.049 (0.520) | 0.900 (0.450) | 0.990 (0.496) |
| Lagos term (2000–2006) | 1.243 (0.615) | 1.073 (0.534) | 1.186 (0.590) |
| Bachelet (2006–2010) | 1.644 (0.835) | 1.443 (0.739) | 1.638 (0.840) |
| Piñera (2010–2014) | 2.243 (1.153) | 1.942 (1.006) | 2.292 (1.191) |
| Bachelet (2014–2018) | 1.697 (0.854) | 1.487 (0.754) | 1.582 (0.805) |
| Piñera (2018–2022) | 2.400* (1.206) | 2.162 (1.091) | 2.490* (1.270) |
| Observations | 340 | 340 | 340 |

Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Source: Authors, with data collected from different sources.

technocratic credentials fail to explain the length of service. Those appointed to less prestigious ministries survive longer than those appointed to more important and more prestigious ministries. Those appointed to political ministries have a shorter length of service.

Future studies on the length of service and chances of survival of cabinet ministers should incorporate the type of cabinet position each person is appointed to. Although some personal attributes matter in explaining the length of service, in some cabinet posts, ministers will be sacked earlier regardless

of their personal attributes. As cabinet positions have different power and attributions in different democracies, the distribution of power within cabinets is based on country-specific factors. As cabinet positions are not equally important in all democracies, the duration of ministers in those posts will also vary across democracies. Still, since cabinet stability allows for the implementation of reform agendas and facilitates the delivery of public policies, studying the reasons that explain why some cabinet ministers last longer in their posts contributes to identifying some of the causes of governability in Latin American presidential democracies.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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