Deciding on the Electoral System: Chile's Adoption of Proportional Representation in 1925

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ABSTRACT

In 1925 a new electoral system was introduced in Chile. This reform changed the electoral formula from a cumulative voting system to a proportional one (d´Hondt) and established new rules about district magnitude and form of voting. It has been argued that this reform was motivated by the emergence of new parties or the expansion of the electorate. This article offers an alternative explanation: in the case of Chile, the main reason for the electoral reform was the parties' need to solve problems of strategic coordination stemming from the characteristics of the Chilean cumulative voting system. In this context, the Chilean case shows that there are many routes to proportionality.

In any democratic country, decisions as to which electoral system is employed to elect authorities are of the greatest importance. Electoral systems are institutions defined by political players with incentives and interests.[1] Therefore, they are not necessarily neutral for those who compete in the electoral arena. Though some of their components are mathematical formulas that convert votes into seats, they can be designed to safeguard or increase the power of the most influential parties. Through electoral rules, it is possible to favor certain groups or to prejudice others regarding access to parliamentary seats (IDEA 2005). As a result, electoral reform is a process in which the relative power of each political player is directly engaged.

In September 1925 a new electoral system was introduced in Chile in a three-stage process, in the midst of a profound institutional reform. The new Constitution of 1925 established a change in the electoral formula, providing that the cumulative voting system (CVS) for the election of members of Congress, in effect since 1874, be replaced by a form of proportional representation (PR). Two decree laws (DL 542 and DL 543), both of September 1925, specified the constitutional provisions, establishing new rules for the conversion of votes into seats (in accordance with the d'Hondt formula), district sizes, and the form of voting. Furthermore, in November 1925, DL 710 amended DL 542, enabling parties to draw up joint lists for competing in elections (electoral pacts) and introducing the "vote for the list."

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To date, little academic research in political science has been undertaken to examine in depth the origin and the goals of the adoption of this major electoral reform. This article is designed to fill that gap by answering two related questions: what explains the change from a majority system (CVS) to another with proportional representation and the d'Hondt formula? Within this framework, what explains the decisions that were made on three substantive points: district size, form of voting, and electoral pacts?

In our attempt to answer these questions, we examine the argument of Wills-Otero (2009), who maintains that the Rokkan-Boix hypothesis (Boix 1999) is applicable to the Chilean case. Although this thesis is well founded, we reject Wills-Otero's argument, since its premises are inapplicable in the Chilean case. We offer an alternative explanation, which is based on an empirical analysis of the arguments of those who favored a change from a CVS to a d'Hondt-style PR system from the decade of 1910 onward and the form in which the new system was structured and operated.[2]

We argue that the new electoral system emerged in the context of a national political crisis and during a period in which various countries had adopted PR systems. Both factors contributed to the reform. In the first place, the crisis generated a strategic political opening that provided the promoters of the reform with the opportunity to design and introduce it without significant opposition. Second, the adoption of the PR system by several European and Latin American countries served as an argument to justify the reform.

While these factors played a facilitating role, the most important factor explaining the reform was the elite's need to resolve problems of strategic coordination generated by the CVS, which differed from those underlying the Rokkan-Boix thesis. The CVS, combined with a low average district magnitude (M), generated a number of problems: how to determine the optimal number of candidates per district (particularly in districts where M was greater than 4); how to ensure that the voters "distributed correctly" their votes in the event that one party presented more than one candidate; and the internal tensions aroused by the parties' need to exclude potential candidates who were important party figures.

The new PR system largely resolved these problems. Because it was based on a list and larger districts (average M was greater), more candidates could be fielded in each district, which reduced the problem of excluding candidates. The votes of one candidate helped the party, and possibly the candidate's fellow members, by lessening the problems caused by the concentration of votes for a single candidate and the difficulty of having to determine the optimum number of candidates per district; consequently, it also helped reduce tensions among candidates.

The evidence is mixed as to whether the need to generate greater proportionality helped drive the reform. Its promoters maintained in 1912 that the change was necessary for that reason. Yet the lack of proportionality was not a substantial problem at that date. In 1925, moreover, the leaders of the reform (Arturo Alessandri and José Maza) did not consider the lack of proportionality to be a major problem to resolve. Effectively, the lower chamber had no proportionality problem at that

date, while in the Senate, disproportionality had increased compared with 1912. Thus, although increasing proportionality was not an explicit and central objective in 1925, it cannot be discounted that its promoters had an additional objective of generating greater proportionality in the Senate and ensuring that the Chamber's proportionality was preserved. On balance, the evidence suggests that the reform did not have a substantial impact on the result: the CVS was not significantly less proportional than the PR system later proved to be.

The new system contributed (although only partially) to resolving two connected problems: the malapportionment arising from the specific structure of the Chilean CVS and the lack of formal mechanisms for interparty cooperation (the possibility of the parties' competing in joint lists).

Furthermore, the argument that a PR would reduce corruption in the electoral process has no basis.

In this way, Chile followed its own route to proportionality. It differed from those of European countries like Belgium, Denmark, the Netherlands, or Sweden (Gallagher and Mitchell 2008), or Latin American countries like Argentina and Nicaragua, which had a majoritarian electoral system (a single-member plurality or two-round system), and opted for proportionality as a solution to the strategic coordination problems identified in the Rokkan-Boix thesis (Boix 1999). We maintain, moreover, that although arguments alternative to those of Boix (Blais et al. 2005; Calvo 2009; Cusack et al. 2007) are correctly formulated and add substantive elements to the discussion, they do not help us understand what occurred in Chile, as they are structured around elements that are not present in the Chilean context.[3]

The particularity of this case is that Chile made the transition to proportionality from a CVS system. The literature has concentrated on the passage from a single-member plurality (SMP) or from a two-round system to PR without asking why a country would pass, as Chile did, from a CVS to PR. Thus, for comparative purposes, the relevance of this article is that it analyzes the adoption of a PR system in a different context. It shows, in particular, that a CVS system, also a majoritarian one, imposes strategic coordination problems of its own (and different from those imposed by other majoritarian systems), generating strong incentives to change it for PR.

This article first refers briefly to the literature on electoral reform as a dependent variable. Next, it examines the usefulness of the Rokkan-Boix hypothesis when applied to the case of Chile (as by Wills-Otero) and presents other related but less important arguments. It then offers the arguments in favor of replacing the CVS with a PR system and those against it. It explains the political process whereby the new electoral procedure was introduced and, utilizing the results of elections conducted under the CVS and others obtained under the proportional system, it tests the arguments in favor of the reform.

ELECTORAL REFORMS AS A
DEPENDENT VARIABLE

The literature on electoral systems is abundant, in most cases examining them as an independent variable; that is, for their influence on political competition or the characteristics of the party system (Cox 1997, 1999; Duverger 1987; Farrell 2001; Gallagher and Mitchell 2008; Lijphart 1999; Rae 1967). Less has been written on the study of electoral systems as a dependent variable.

Lately, however, there has been noticeably more interest in studying the explanatory factors behind the adoption of an electoral system (Benoit 2007; Blais et al. 2005; Boix 1999; Calvo 2009; Colomer 2007; Cusack et al. 2007; Monroe and Rose 2002; Remmer 2008; Renwick 2010). Specifically, Boix has made the biggest contribution to our understanding of why countries adopt a proportional system. Based on the arguments of Rokkan (1970), Boix proposes the "dominant" hypothesis (also known as the Rokkan-Boix hypothesis), which Wills-Otero has tested for Latin American cases, including Chile (Wills-Otero 2009).

Apart from this study, there is little literature on the electoral reform of 1925. Some works, however, have analyzed the introduction of new electoral systems in Chile and the factors influencing those decisions. In the case of the reform of 1874, which introduced the CVS, it is Valenzuela who emphasizes that this reform was driven by the political and electoral interests of the opposition parties; this system gave them better opportunities to elect legislators, unlike the party bloc vote system that was operative at the time (Valenzuela 1985, 104).[4] For its part, the binomial system in force since 1989 has been the object of extensive academic research (Auth 2006; Morales 2012; Zucco 2007). Some authors have explored the motives of the military government in introducing this system (Gamboa 2006; Navia 2005; Siavelis 2008). Whatever the differences among authors, they concur that the military government hoped with this system to favor its supporting parties and thereby create a mechanism to defend its opus.[5]

The Rokkan-Boix Hypothesis

Based on Rokkan 1970, Boix discusses why, at the beginning of the twentieth century, some countries, such as Austria, the Netherlands, and Switzerland, changed from an SMP or a two-round system to one based on proportional representation while others, such as the United Kingdom and Canada, retained the SMP. Boix explains that the decision to retain a majoritarian system (SMP or two-round) or replace it by a PR depends on the calculations the old ruling parties make of the prospects that each system offers to maximize their representation in congress (Boix 1999, 621). On the one hand, Boix contends, if the conditions for competition are stable and the electoral system "serves" the parties' interests, there is no incentive to change it. On the other hand, states Boix, when uncertainty increases and the ruling parties are afraid of losing power, the probabilities of changing the electoral system rise substantially. The increment of uncertainty arises from the entrance of new

voters, the realignment of voters switching to prefer new emerging parties (e.g., new left-wing parties), or the introduction of competitive elections.

In this context, the decision to keep up the majority system or to replace it with a PR depends on two conditions: the electoral strength of new parties and the ability of the old ruling parties to block the growth of the new parties through electoral coordination. Thus, Boix proposes three hypotheses for adopting a PR system:

- If the new parties are strong and the traditional parties are unable to coordinate so that some traditional party can retain an electorally dominating position, the most likely outcome is a change to a PR system.
- If the threat from the new parties is strong but the traditional parties are able to coordinate so that one of them retains a dominating position, there is no incentive to change.
- If the new forces are weak, the majority system prevails. (Boix 1999, 622)

Strategic Coordination

Cox has posited the importance of strategic coordination by arguing that different electoral rules affect electoral competitors' incentives to coordinate their efforts and resources (1999). Also, according to him, such coordination may be more or less difficult depending on which electoral system is employed, because the stronger the electoral system, "the greater the coordination problem that political players face" (1997, 270). In this context, the critics of CVS argued that it posed two major problems to the parties: determining the optimum number of candidates to present in each district and coordinating their voters so that the distribution of their votes, particularly in districts with several candidates running, might optimize the party outcome. As noted, the reform of 1925 was eventually intended to resolve these problems.

Vote Buying and the Proportional System

Promoters of the reform argued that opting to adopt proportional systems would raise more obstacles to corruption. Now, as the literature linking electoral systems and corruption recognizes, the personalized vote helps to generate clientelistic links that are sometimes corrupt. But it is also true that proportional systems can stimulate corruption. For instance, it has been argued that open-list systems and high district magnitude (DM) (Geddes and Ribeiro 1992) foster corruption owing to the low public visibility of the elected candidates. Furthermore, in high-DM districts, candidates tend to form small knots of voters who, in some cases, respond to featherbedding or exchange of favors for votes (Kunikova and Rose-Ackerman 2005; Persson et al. 2003; Cox and Thies 2000).

Table 1. District Magnitude per District, 1911–1924

Magnitude	Districts, Senate	Districts, Deputies
1	13	1
2	6	20
3	2	11
4	—	6
6	1	—
7	—	1
13	—	1
M average	1.68	2.65
Total districts	22	40

Source: Law 2.453

Institutional Emulation

It has been argued that one reason for many countries' adoption of PR is related to the factor of institutional emulation. That is, from the beginning of the twentieth century, several countries began adopting this formula in imitation of others that were doing so, as, normatively speaking, it represented the best option for compliance with democratic principles (Blais et al. 2005, 184).

THE ROKKAN-BOIX HYPOTHESIS AND THE CHILEAN CVS

The Chilean CVS worked as follows: each voter had as many votes as there were seats to be filled in each district. The voter was free to give all the votes to a single candidate or distribute them differently (Article 77, Law 2.883). The candidates who won the majority of the individual votes were elected. Thus, for example, in a district with three seats to be awarded, the three candidates with the highest number of votes won the election (Article 83, Law 2.883).

In addition, the DM, for both senators and deputies, was variable. Pursuant to law 2.453 of 1911, 40 districts were set up to elect 118 deputies. The Senate was composed of 37 senators elected in 22 districts. The DM for deputies varied between 1 and 13; in 77.5 percent of districts the DM was between 2 and 3. Average DM was 2.65. For the Senate, average DM was 1.68, with DM 1 and 2 in 86 percent of districts (table 1).

In the early twentieth century, party competition featured the predominance of four parties: Conservative, Liberal, Radical, and National. These accounted for about 90 percent of the votes from the beginning of the century until 1924 (figure 1). The most important was the Liberal Party (see table 2). This party, however, suffered division several times, especially after 1890 (in fact, by 1925 there were four liberal groups). The competition took place mainly around the clerical-anticlerical

Figure 1. Percentage Votes and Seats of the Old Ruling Parties, 1912–1925
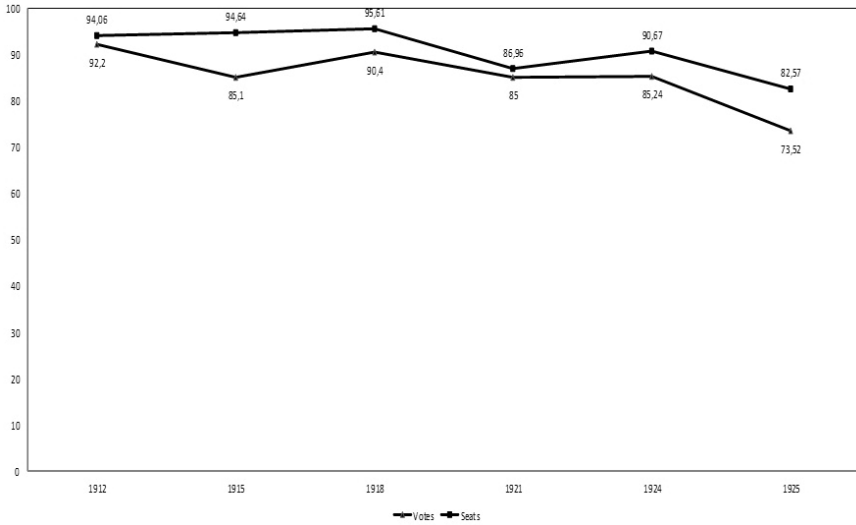
Source: Prepared by the authors with data from Scully 1992; Urzúa 1968.

divide, which lost strength little by little. Also, from 1891 on, the political system acquired a "quasi-parliamentary" form and worked on the logic of alternating party coalitions: the Conservative Coalition and the Liberal Alliance.

At the same time, attempts were made to mobilize workers to participate politically. The first referent was the Democrat Party (1887), which had a basically reformist program and enjoyed some electoral success (12 percent in 1924) but failed to become the political representative of the working class (Scully 1992, 104). Given the "mimesis" of the Democrats among the other parties (and no longer being the menace for the old ruling parties), groups of Marxist inspiration arose. The Socialist Workers' Party (POS) appeared in 1912, and in 1922 it became the Communist Party (PC). By 1925, however, it was still far from being a strong party in electoral terms.

Before 1925, access to suffrage was highly restricted. In 1888 the number of voters was 89.977, or 3.6 percent of the population. This figure rose substantially in 1912 (290.234 voters, 8.6 percent of the population), then dropped significantly. In 1921 the number of voters was 197.267 (5.1 percent). Accordingly, during this period, the levels of electoral participation, though variable, were always comparatively low. Moreover, the Constitution of 1925 made no amendment to the right to suffrage; as a result, the electoral reform was not supported by action to expand access to suffrage.

Consequently, the conditions assumed in the Rokkan-Boix hypothesis were not met in Chile by 1925, as Wills-Otero argues. In fact, although the new parties expected to challenge the old ruling ones, they did not pose a real threat. Also, the reform took place not in a context of expansion of the electorate but one of stability.

Table 2. Composition of the Chamber of Deputies, 1915–1925
(Parties and Seats)

	1912	1915	1918	1921	1924	1925
Conservative	25	26	25	24	24	28
Liberal[a]	22	16	26	24	19	33
Liberal Democrat	25	22	14	9	19	10
Radical	25	26	32	40	42	38
National	14	15	11	7	3	—
Democrat	4	5	6	12	11	13
USRACH	—	—	—	—	—	9
Socialist	—	—	—	2	—	—
Independent	3	8	2	0	0	1
Others	—	—	2	0	—	—
Total	118	118	118	118	118	132

[a]Includes the following parties: Liberales Aliancistas, Unionistas, and Democráticos Aliancistas.
Source: Prepared by the authors based on official results.

Introduction of the d'Hondt System

What were the arguments for replacing the CVS by a PR system? The first proposals for introducing a d'Hondt system were submitted in the decade of 1910. In 1912, Liberal senators Luis Claro Solar and Eliodoro Yáñez submitted a draft law that was debated in Congress. The arguments of José Maza, also a Liberal, were heard during the same period. Summarized, the arguments were the following.

Detrimental Effect of the CVS
on Internal Party Cohesion

Yáñez argued that for the CVS to be properly enforced, "it would be necessary to have parties united by an iron discipline and under a single leadership; far from fostering party cohesion it tends to disorganize them, making its application impossible" (DSS 08.29.1912, 476). Accordingly, by making party candidates compete among themselves, the system failed to foster electoral cooperation among candidates of the same party, causing disunion and intraparty conflict. Later, Maza argued that the CVS acted as the "most energetic solvent of political parties" (Maza 1918, 124).

Yáñez added that the CVS forced parties to submit to the wishes of individuals who had to be accepted as candidates, even though they failed to represent the ideals of the party (DSS 08.19.1912, 666). In this vein, the Radical Enrique MacIver pointed out that "the first requirement of a candidacy today is not the will or the wish of a party … but that the designated candidate be above all one who is able to pay; in brief, that as the bag is not always as well filled as the brain, an abundance of ideas is not always easily matched … with material goods" (DSS 8.30.1912, 495).

In other words, the difficulty was that the electoral formula weakened the parties, which very often had to accept as candidates the local bosses (*caciques*) with material resources at their disposal to win the election (most important in a country where bribery was a general practice).

In contrast to the CVS, a PR system, according to its promoters, had a very different logic: a list system introduced incentives for candidates of the same party to work together, and by seeking their own benefit, the candidates benefited the party (DSS 8.29-30.1912). So, according to Maza, it happened that in the d'Hondt system, "the desire to win at all costs even if party interests suffer has no place, it cannot have one in this system that, on the contrary, encourages discipline and requires joint and solidary action" (Maza 1913, 148).

Strategic Coordination Problems

Claro Solar argued that in the CVS the parties faced an immense risk of vote loss. According to him, the CVS

> may grant the majority of the Deputies to the minority of the voters; a thoughtless distribution of votes by the majority and improved discipline of the minority will suffice. This peril is more likely the larger the electoral circumscriptions and the higher the number of representatives to be elected, for in this case it is more difficult for each party to calculate approximately the forces it has in the circumscription; electoral discipline is more difficult to achieve. (DSS 08.12.1912, 597–98)

In this context, and linked to the point of proportionality, Maza held that with the CVS, "owing to mistakes in calculating accumulations, it often happens that with this practice parties obtain more or less representation than is legitimately theirs" (Maza 1918, 123). Therefore, the CVS posed a major problem for parties: to calculate precisely how many candidates to present in order to maximize the number of seats to be won.

This difficulty, according to these critics, would be overcome with the d'Hondt system. In this sense, Maza argued that with the PR this problem disappeared

> because many candidates stand, the votes are distributed and some of them may not receive the necessary number. Whatever the number of candidates running, the ones elected will always be the same number. No harm is done among themselves; quite the contrary, they help one another by increasing with their personal support the votes in favor of their party. (Maza 1913, 198)

Furthermore, with PR, the problem of an excessive number of candidates became practically irrelevant. As Maza explained, the advantage of PR was that it

> ensures … the most perfect utilization of the party forces. The absolute absence of any danger of perilous accumulations in favor of one candidate and the absolute impossibility that the votes be distributed among an excessive number of candidates, it makes the full amount of electoral force be computed to the complete list. (Maza 1913, 199)

Lack of Proportionality of the CVS

Yáñez argued that although the CVS was "inspired" by the idea of giving representation to minorities, in practice, it was basically a majoritarian electoral system (DSS 08.29.1912, 476) (see table 2). In this context, Claro Solar added that a PR system *à la* d'Hondt would permit the most "exact representation … of all the opinions dividing the electoral body strongly enough to be taken into account and contribute to the progression of the State" (DSS 08.07.1912, 576). More poetically, the Radical MacIver pointed out that with a PR, "the Congress would be a photograph of the people" (DSS 07.30.1912, 496; see also Maza 1913, 200).

Vote Buying

Maza argued that the CVS encouraged vote buying because it facilitated "close contact" between voters and candidates, making the former slaves of the "promises and the money" of the latter (1918, 124). In turn, PR would contribute to diminishing this problem because voting for lists reduces contact between candidates and voters, and thereby the incentive to purchase votes.

Equal Value of the Vote (Malapportionment)

Maza held that owing to the way the system was structured, the "equal value of each vote" was not guaranteed because, depending on the place where the voting took place, voters had more or fewer votes. As an example, he discussed the difference between such cities as Santiago, where the "voter casts ballots for 13 persons, and other places, where the voter can only vote for three or four," which established a case of "plural voting with no base of any kind" (Maza 1918, 124).

The Yáñez-Claro proposal lacked political support and was definitively turned down by congress members of all parties. The arguments for rejection centered on several points. For one, it was argued that the CVS caused no problem of proportionality. Joaquín Walker Martínez held that the CVS had had "good results in Chile, giving representation to minorities" (DSS 07.07.1912, 499), and therefore did not need to be changed. Conservative Alfredo Barros added that there were no cases of a transition from CVS to PR precisely because the former generated no problems of representation (DSS 08.05.1912, 533).

Barros also held that "loss of votes" was of no consequence in the CVS, for with it, as well as with the proportional form, "few votes are lost, contrary to what happens with the full list method, where there is great loss" (DSS 08.05.1912, 533). Barros further argued that the "cumulative vote is more democratic than the proportional vote" (DSS 08.05.1912, 533), as it might have a lower representation threshold when M is relatively high. In this context, Barros maintained that in an M = 4 district the representation threshold with CVS was lower than in a PR district.

On a final point, Angel Guarello, a Democrat, argued that changing was pointless because the real problem was the corruption of the voting method, which was

apparently plagued by fraud (impersonation of voters, vote buying, alteration of voting records) (DSS 08.20.1912, 690).

Despite the failure of the Yáñez-Claro proposal, the promoters of the reform had another opportunity in 1925, when they were indeed able to introduce the reform, having recourse to very similar arguments. However, as we have seen, in the constituent commission the emphasis was placed on problems linked to strategic coordination.

THE REFORM OF 1925: THE POLITICAL CONTEXT AND COMPARATIVE EXPERIENCE

In September 1924, Chile experienced a profound crisis that involved the fall from office of President Arturo Alessandri and the ascent of a military junta. Very soon, however, divisions among the military led to Alessandri's return. He concentrated government activity on drafting a new constitution. This was approved in 1925 and was designed to restore the presidential system. Additionally, it established the basis for a new PR system (Article 25), which was subsequently fleshed out in decree laws 542, 543, and 710 of 1925.

Documentary sources agree that José Maza (minister of justice at the time) played a leading role in the specific design of the reform. On the one hand, the discussion in the committee, led by Alessandri and Maza, was very brief (Ministry of the Interior 1925, 146). Two points about that discussion deserve comment. First, Alessandri based his defense of PR on the need to overcome two problems of the CVS: the promotion of "bossism" (*cacicazgo*) and the disorganization of the parties. He made no mention of proportionality (Ministry of the Interior 1925, 146). Maza, in turn, maintained that the the CVS was "empirically proportional" (Ministry of the Interior 1925, 149). Second, Alessandri and Maza left no space to discuss alternatives to PR, and no other electoral formulas were examined at the time. Nevertheless, the representatives of the small parties (Communists and Democrats) made known their criticisms of the new system. For example, Manuel Hidalgo of the Communist Party argued that the CVS was highly advantageous for small parties because it enabled them to make the most of all their forces (Ministry of the Interior 1925, 146–49).

On the other hand, since the new constitution was in force but no congress was in session (it had been closed in September 1924), the government defined the particular features of the new electoral system by means of decree laws. A commission was set up for this purpose, headed by Maza and with members from all parties. There are no records of the work of this commission. However, the contemporary press reported unanimously that the main parties supported the replacement of the CVS by the PR, as provided in the constitution. In this context, Maza was at liberty to determine the specific content of the new electoral norms. Thus, to make it clear, the promoters of the reform (and especially Maza) enjoyed "full freedom" to define the specific content of the new electoral rules. This was the origin of DLs 542 and 543, copied by Maza word for word from Belgian law (Castro 1941, 105).

With the constitutional process now complete, political conditions in Chile became critical once more. Colonel Carlos Ibáñez, who led the military group that had asked Alessandri to return, now pressured him to the point that he resigned, before the presidential election in October 1925. Vice President Luis Barros Borgoño took office as president. Then Ibáñez pressured the parties to join in supporting a single (civilian) presidential candidate, threatening that if they failed to do so he would stand himself. Accordingly, the parties managed to agree on Emiliano Figueroa, forestalling, for the moment, the chances of Ibáñez's becoming president. The parties, however, failed to recover full control of the situation, as evidenced by the presidential election, in which Figueroa was opposed by José Santos Salas, who was close to Ibáñez but had shown no notable political participation until that moment. Although Figueroa won by a wide margin (71.1 percent to 28.8 percent), the result made it clear that the parties were in a highly vulnerable situation.

For the *civilistas* (particularly the parties), it was very clear that controlling Ibáñez would be extremely difficult. So, facing the parliamentary election to be held in November, they tried to present a single list of candidates to facilitate control of Congress and define in advance who would be its members. Moreover, they appointed a committee (chaired by Maza) to discuss the necessary electoral reforms, the result of whose labors was DL 710. It provided that the parties might draw up joint lists for the parliamentary elections and introduced the "vote for the list."

Thus, DL 710 was the élite's response to the "*Ibañista* threat," which is not the same as a "threat" from the emerging parties. Also, this "threat" emerged after the decision to introduce a PR system. Thus the "*Ibañista* threat" made the parties acutely aware of the need to amend electoral rules to permit and facilitate better coordination while retaining control of the election process. For the former, the response was to allow parties to compete jointly by means of joint candidacy declarations (electoral pacts). For the latter, and contrary to what the supporters of the reform had said about their interest in "purifying" the elections, they suppressed the "Australian ballot" (*cédula única*) introduced by DL 542 and returned to the old voting system (the *cédula particular*, in which each candidate issued his or her own ballots) (Gamboa 2011, 169–72).

Before explaining the new electoral system, it is important to be clear on two points: the political crisis and the institutional emulation factor. Those who have written about the political crisis do not consider it to have been an antecedent to the reform. In fact, the military did not include an electoral reform in the demands with which it justified the coup d'état, nor did it have any say in the decision to establish PR (Navarrete 2004).[6] Nevertheless, the crisis is relevant to understanding the reform. Although in 1912 the promoters of PR lacked political strength to introduce it, in 1925 the situation was different. The constitution-building process and the generation of new electoral norms took place in an abnormal context, with the relevant decisionmaking power (with regard to this reform) concentrated in President Alessandri and José Maza. Thanks to that, they enjoyed ample political space to introduce and design it. Consequently, the crisis facilitated the reform by opening a political space that had not existed previously.

The argument for institutional emulation also facilitated the reform. In 1912 and in 1925, the promoters of PR argued that this system was being adopted in European countries like France, Belgium, Denmark, and Switzerland. The experience of Argentina and Costa Rica was also taken into account (DSS 07.29.1912, 479–80). In addition, it is very significant that in drafting DL 542, Maza virtually copied the Belgian law. In this manner, the reference to the experience of other countries served to legitimate the reform. Nevertheless, this does not explain the decisions that were taken about specific aspects of the electoral system, such as pacts, voting type, and electoral districts. These, we maintain, are principally explained by the need to resolve the problems of strategic coordination presented by the CVS.

THE NEW ELECTORAL SYSTEM: SPECIFIC CONFIGURATION

The general rules that governed the contours of the new PR system were established in the constitution itself, which addressed two fundamental questions. One was to establish the principle of proportionality in parliamentary elections. Thus, Article 25 provided that "a procedure shall be employed in elections of Deputies and Senators resulting in practice in effective proportionality of opinions and political parties." The article stopped short, however, of defining a specific type of proportional formula.

The constitution also set forth the general rules for determining the number of members of Congress. For deputies, it provided that one deputy should be elected for every 30,000 inhabitants or fraction thereof over 15,000 (Article 37), although it specified neither the number of districts nor their magnitude. For the Senate, the case was different. The number of senators was set at 45, to be elected by 9 provincial groupings (*agrupaciones provinciales*), each of which was to elect 5 senators. The constitution further established the territorial boundaries of each provincial grouping. Within the framework of these constitutional provisions, Decree Laws 542, 543, and 710 contained the following major provisions.

Districts and Provincial Groupings

Regarding the number and magnitude of districts for the Chamber of Deputies, DL 543 provided for 24 districts of varying magnitude, 18 being the largest and 2 the smallest. Average DM was 5.7. A total of 132 deputies would be elected. The Senate structure was provided under the constitution (table 3).

Candidacies, Lists, and Pacts

Districts (for deputies) and provincial groupings (for senators) being plurinominal, each list might contain as many candidates as there were seats to fill (Article 13). Individual candidacies were also allowed. Furthermore, the parties might compete jointly in the elections by means of joint candidacy declarations, so that one list might contain candidates of different parties (new Article 14, under DL 710). These electoral pacts were made at the district (not national) level.

Table 3. Districts and District Magnitude, 1925

Magnitude	Provincial Groupings, Senate	Districts, Deputies
2		1
3		1
4		10
5	9	4
6		4
7		2
11		1
18		1
DM average	5	5.7
Total districts	9	24
Total seats	45	132

Source: DL 543 of 1925

Form of Voting and Determining Elected Candidates

The method in effect featured the system of *cédula particular*, there being no ballot containing all the candidates, so that each candidate, party, or electoral pact prepared his, her, or its own ballots. A voter seeking to vote for a specific candidate had to put a mark next to the candidate's name, then place the ballot inside an envelope (*cierro*) and the envelope in the ballot box. Or he might mark no preference and do the same. In this case, the vote (known as a "vote for the list") would be counted for the list (Articles 21, 76, 84).

To determine how many seats were awarded for each list in the district or provincial grouping, the votes issued for each candidate were added up and the "list votes" (*votos de lista*; i.e., total votes received by the party or pact list) were calculated. Then each of the "list votes" was divided by 1, 2, 3, and so on until each of the "list votes" furnished as many quotients as there were seats to be filled in the district. They were then ranked in decreasing order until their number equaled the number of parliamentarians to be elected. The last quotient in this ranking was known as the electoral quotient (or *cifra repartidora*). Last, the number of votes for each list was divided by the electoral quotient to determine how many seats went to each list.

Candidates Elected from Each List

To determine which candidates were elected from each list (in the event that the list filled fewer seats than there were candidates), DL 542 provided that the first to be elected were the candidates whose personal votes contained the electoral quotient. For this purpose, the "votes for the list" were added to the first candidate on the list (Article 115).

If, having done the above, there were still seats to be filled, the surplus votes obtained by the candidates already proclaimed were added to the personal votes of each of the other candidates on the list by order of preference; those meeting the electoral quotient were proclaimed winners.[7] Finally, if, having completed the foregoing process, seats still remained to fill, the "multiplication" mechanism applied (Article 117). This meant that if none of the candidates had enough votes to make the electoral quotient, the votes of the candidate in the first place on the list were presumed to be worth "as many times as there are seats allocated to the list" (Article 117). The votes of the second name on the list were worth the same number of seats minus one, and so on to one. Then the "multiplied" votes for each candidate were placed in decreasing order, and the candidates obtaining the highest figures were declared winners.

DOES THE PR SYSTEM RESOLVE THE PROBLEMS ITS PROMOTERS HIGHLIGHTED?

Now we examine empirically the operation of the CVS and the new PR system in the light of the arguments defended by the promoters of the reform. To this end, we utilize the results of four elections conducted under the CVS system (1912, 1915, 1918, and 1921) and three conducted under the new PR system (1932, 1937, and 1941). We assess the truth or falsehood of these arguments and suggest an explanation of the real reasons for the change. Our findings are as follows.

The Party Cohesion Argument

The d'Hondt system reduces intraparty conflict when two or more candidates from one party compete in the same district. Although each candidate must struggle to reach the quota (which may cause conflict), if one has surplus votes, he turns them over to the other members of the list. Similarly, if he has less than enough, he may profit from the work of others. In this context, Maza's argument is valid. Nevertheless, the new system is no guarantee of party cohesion, for it also promotes competition. In addition, party cohesion may stem from other factors, like institutional ones (i.e., presidentialism).

On the other hand, in the new system, with a higher average M, there is more room for the parties to present more candidates per district. This evidently eased the problems liable to arise from the CVS, where the struggle for the electoral vacancies aroused intraparty tensions. In this context, the new system was an aid to parties, whose number of candidates per district increased substantially after 1932 (see figure 2).

Last, although the new formula failed to resolve the issue of "bossism," given that it did not prevent leaders (with funds) from continuing to force local party leaders to include them on their lists, it did help to reduce the problem. In fact, under the new PR system and the way seats were assigned, the parties had more mechanisms available at least to privilege one of their candidates and so reduce their dependence on the *caciques*.

Figure 2. Average Number of Candidates per Election, 1912–1941
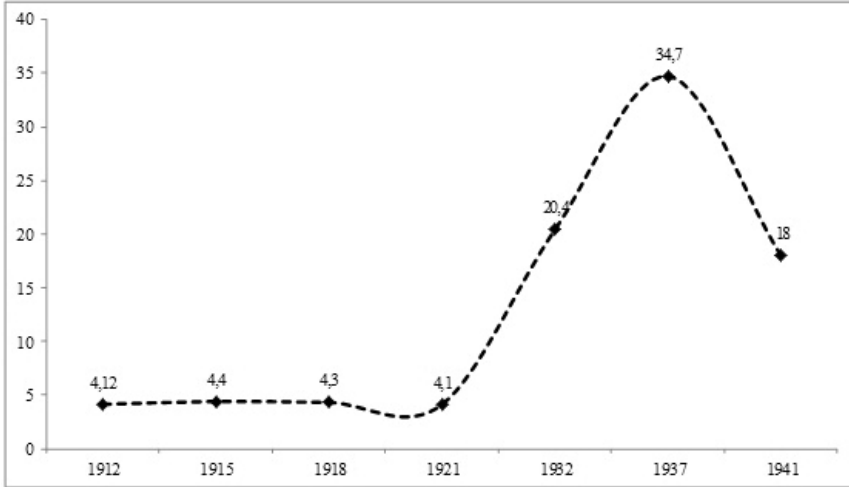
Strategic Coordination Problems

According to our data, the parties had no serious difficulties calculating the number of their candidates for each election, particularly in districts with medium to low M. The data in table 4 show that the absolute difference between the average number of candidates and the M+1 rule is low or nil in the districts having up to 4 seats, while in the districts with 7 to 13 seats, the distance between the average number and the M+1 rule is substantially higher. Indeed, in the districts with 7 to 13 seats, some parties experienced the problem of having too many candidates or a poor distribution of votes. The clearest example is what happened in the Santiago district (M = 13) with the Conservative Party: 18.9 percent of votes in 1912 and 7.7 percent of seats (table 5). Clearly, there were coordination problems, for the party presented 4 candidates and won 1 seat. This changed in the next election (1915), however, when the Conservatives presented 5 candidates and 3 were elected (see table 6).

In this context, the parties showed very high electoral efficiency and "lost very few candidates" with the CVS. As table 6 shows, the percentage of elected candidates per party averaged 65 percent of the total candidates presented between 1912 and 1921.

Despite the foregoing stiuation, the PR system offered other very relevant advantages that are key to understanding the reform. For one, it was a list system that significantly reduced the negotiation costs when lists of candidates were to be prepared. As we have seen, with the CVS they followed the M+1 rule, so the number of candidates was low. This, in turn, meant that negotiation costs might be very high. With the new PR, with a higher average M for deputies and senators, the number of candidates could be higher, as in fact it was.

Table 4. Average Number of Candidates by District Magnitude, 1912–1921

Magnitude	1912	1915	1918	1921	Average	M+1	(M+1) – Average, Absolute distance
1	1	2	2	2	1.8	2.0	0.3
2	2.8	3.1	2.9	3	3.0	3.0	0.0
3	3.8	4.1	3.6	4	3.9	4.0	0.1
4	5.8	5.3	5.5	5.2	5.5	5.0	0.5
7	8	15	11	11	11.3	8.0	3.3
13	23	21	26	16	21.5	14.0	7.5

Source: Prepared by the authors based on official results.

Table 5. Disproportionality in Larger Districts: Elections of Deputies

	1912			1915		
	% Votes	% Seats	Difference	% Votes	% Seats	Difference
Santiago						
Conservative	18.9	7.7	−11.21	21.5	23.1	1.6
Democrat	22.2	15.4	−6.84	10.3	7.7	−2.6
Liberal	12.5	15.4	2.92	9.2	7.7	−1.5
Radical	16.8	15.4	−1.44	11.9	15.4	3.5
Valparaíso						
Conservative	18.8	14.3	−4.5	21.8	28.6	6.8
Democrat	22.2	28.6	6.3	13.4	0	−13.4
Liberal	26.3	28.6	2.2	17.3	14.3	−3.0
Radical	10.7	14.3	3.5	16.5	14.3	−2.2

Source: Prepared by the authors based on official results.

Table 6. Electoral Efficiency of the Parties, 1912–1937

	Percent of Candidates Elected of Totals Presented				
	1912	1915	1918	1921	1937
Conservative	86.2	78.8	80.6	75.0	54.2
Democrat	20.0	29.4	35.3	46.2	9.1
Liberal	95.7	64.0	96.3	67.9	29.4
Liberal Democrat	69.4	71.0	58.3	60.0	20.0
National	87.5	93.8	57.9	87.5	—
Radical	73.5	72.2	88.8	93.0	43.1
Independent	42.9	61.5	25.0	0.0	6.4
Total	71.5	66.7	63.2	61.4	27.0

Note: In 1921 there are also allied Liberals, Unionists, and Democrats.
Source: Prepared by the authors based on official results.

As shown in figure 2, the average number of candidates per district while the CVS was in force was about 4. Following the adoption of PR, that figure was almost five times higher. The reason, as we noted, was that under the CVS the rule of M+1 predominated for districts electing 4 candidates or fewer, which precluded presenting a large number of candidates. Under the PR system, and as district magnitude increased, parties could raise the number of their candidates without fearing loss of representation. For example, the Conservative Party presented 32 candidates in 1921 and 59 in 1932. This shows, apart from the higher number of seats to be filled, the effect of the reform on the logic of negotiation and constitution of party lists: now the parties had more space to present candidates, which reduced the tensions arising from a system with a lower M. Moreover, as we have said, with the new (list) system, even though each candidate had to find "his own votes" in order to be elected, the individual work of each benefited the party, and tension among them could diminish. Furthermore, the parties reduced any problem of possible loss of votes, as had happened (though not very often) in large districts under the CVS.

At the same time, as table 6 shows, the parties' electoral efficiency dropped from over 60 percent in the 1920s to 27 percent in 1937. Thus, less electoral efficiency was a price to pay for the new system.

On the other hand, the new PR offered an additional advantage: the ability to compete in more districts. Table 7 shows the number of districts where each party competed in 1921 and 1937 and the percentage of the population those districts represented. On average, the parties participated in little more than 50 percent of districts in 1921, rising to 71.2 percent in 1937. Either way, the population coverage for each party was similar between one election and the other. Accordingly, the new electoral system not only enabled the parties to participate in more districts but also reduced negotiation costs in the process of nominating candidates. The PR thus facilitated the entry of more candidates for each party.

In relation to this point, it is interesting to observe what happened with the "wasted votes": the largest parties (under CVS) suffered greater losses than the smaller ones, which partly explains why the small parties rejected the 1925 reform. This analysis compares one election before the reform (1921) and the elections of 1941, by which time the party system had settled down to the new electoral system.[8] The results are summarized in figure 3. It shows that the correlation in 1921 was close to 0.1, the Conservative and Liberal parties having experienced the biggest losses. In 1941 the correlation between the percentage of votes for each party and the portion of votes lost was –0.85; that is, the higher the percentage of votes, the lower the portion of votes lost. The Liberals and Conservatives substantially reduced their proportion of votes lost, while the Radical Party's proportion remained unchanged. The smaller parties were the ones most negatively affected. Consequently, the reform suited the largest parties, as with PR they significantly reduced their portion of votes lost, thereby maximizing their representation.

Another advantage of the PR was that the possibility of making up joint lists was a great help to parties. The parties might now form joint lists (electoral pacts),

Table 7. Number of Districts in which Each Party Ran
and Percentage Population Represented, 1921–1937

| | 1921 | | | 1937 | | |
	Districts	% Districts	% Population	Districts	% Districts	% Population
Conservative	24	60	80.1	21	80.8	78.1
Democrat	14	35	61.5	18	69.2	75.3
Liberal	19	47.5	76.8	14	53.8	54.1
Liberal Democrat	27	67.5	85.2			
National	14	35	65			
Radical	25	62.5	74.9	21	80.8	85.2
Average	20.5	51.25	73.9	18.5	71.2	73.2
Total districts	40			26		

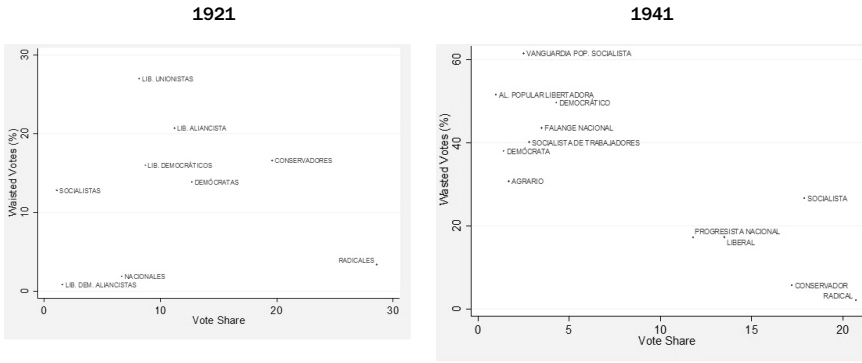Source: Prepared by the authors based on official results.

in which all votes in favor of the parties of the list served all the candidates in the pact (although individual votes continued to be significant). For immediate purposes also, it was an appropriate mechanism to face the "*Ibañista* menace" of 1925. Parties employed this mechanism widely: in the election of 1937, Liberals and Conservatives made pacts in 19 districts (out of 26), followed by Democrats (10), Radicals (7), and Socialists (6).

Proportionality

In 1912 the introduction of PR was defended on the grounds that it generated greater proportionality of representation. Yet this was not a real problem in either chamber of the legislature (see table 8 and figure 4). Later, in 1925, the leaders of the reform still did not consider it to be a major problem requiring solution. However, as figure 4 shows, by 1925 the situation had partially changed: while disproportionality had not signficantly varied since 1912, in the Senate it had increased in 1915 and 1918 and diminished in 1921. So even though proportionality was not a problem inherent in the CVS (as demonstrated by the case of the Chamber of Deputies and the Senate), errors of strategic coordination could produce a more disproportionate result. This occurred in 1918 (when, on average, M+1 was exceeded by a wider margin than in any other election). Consequently, the CVS allowed a proportional Senate as it did the Chamber of Deputies, but this demanded a considerable effort of coordination, considering that 13 of the 22 senatorial districts had M = 1. From this standpoint, the disproportionality claim was more justified, but it was due to low average M rather than to the CVS.

Thus, even though generating greater proportionality was not a primary objective of the reform's promoters and was not a problem in the Chamber of Deputies, it is perfectly possible that an additional objective was to generate greater propor-

Figure 3. Relation Between Share of the Vote and Wasted Votes,
Elections of Deputies, 1921 and 1941

Source: Prepared by the authors based on official results.

tionality in the Senate and to ensure that it was maintained in the Chamber (Ministry of the Interior 1925, 149).

Therefore it needs to be stressed that the PR system was definitely not more proportional than the CVS. Table 8 reports the differences in the percentage of seats and the percentage of party votes in elections of deputies. A positive difference shows that the party won a higher percentage of seats than percentage of votes. A negative difference shows that the party won a higher percentage of votes than percentage of seats.

Comparing the data from pre-1925 elections (under CVS) and post-1925 (under PR), we find that the differences between votes and seats for the various parties were not substantial. With some exceptions (for example, the Conservatives in 1937 or the Radicals in 1941), the parties were slightly over- or underrepresented (below 5 percent). In this context, based on the elections of deputies, no party could argue that it was substantially and regularly prejudiced by the CVS.

However, if we compare the disproportionality between both chambers, certain differences can be observed. Figure 4 shows the Gallagher index of disproportion (Gallagher 1991) in each election (for both senators and deputies). This index operates as follows:

$$D = \sqrt{\frac{\sum_{i=1}^{n} (V_j - E_j)^2}{2}}$$

where V is the percentage of votes obtained by each party and E is the percentage of seats obtained by each party.

Figure 4 underlines the difference in what occurred in the elections of senators: in senatorial contests between 1915 and 1921, average disproportionality was much

Table 8. Difference Between Percentage Seats and Percentage Votes,
Elections of Deputies, 1912–1941

	1912	1918	1921	1937	1941
Conservative	–0.01	0.96	0.76	8.85	4.61
Democrat	–2.60	–2.19	–2.54	1.03	–0.06
Liberal	0.33	4.62	0.35	0.4	0.74
Liberal Democrat	2.68	–0.48	–1.08	—	–1.08
National	–1.25	–4.79	–0.75	—	—
Radical	4.87	5.49	5.34	3.69	7.82
Independent	–4.03	–2.0	–1.61	–6.26	–0.02

Source: Prepared by the authors based on official results.

higher than in the four elections held after 1925. This, we believe, stems from the fact that under the CVS, 13 of the 22 senatorial districts had M = 1, whereas under the new system, the 9 districts assigned 5 seats. Nevertheless, as we have observed, in 1912 (under the CVS), a high quota of proportionality had been also achieved.

Electoral Corruption

Though it was present at discussion level, electoral corruption is not a factor in explaining the reform. In the first place, and as the literature shows, the change from CVS to PR is not necessarily conducive to cleaner elections. Indeed, the main factor said to generate vote buying (direct contact between candidate and voter) was not eliminated; candidates still depended on individual votes to improve their chances of election (making sure of the seat by reaching the quota). Second, had the main objective of the reform been to have clean elections, then DL 710 would not have outlawed the Australian ballot. So the system continued to be vulnerable to general corruption, due to the use of the *cédula particular*.

Nevertheless, the reform introduced some measures that improved system transparency, mainly the creation of an independent election court (TRICEL) (Article 79, CP 1925) and a change in the procedure for receiving votes (no longer dependent on the "greater taxpayers" but on civil servants).

Equal Value of the Vote

A final argument in favor of the adoption of a proportional system was the opportunity to redesign the districts to reduce malapportionment. The reform caused a major change indeed in that respect.

As we have seen, between 1912 and 1921 there were 40 districts, which became 26 after 1925 (then 28) and which were, in addition, more homogeneous in terms of population. As table 9 shows, in 1921 one deputy was elected for every 2,693 inhabitants, whereas in 1932 one deputy was elected for every 1,671 inhabitants.

Figure 4. Index of Electoral Disproportion, Deputies and Senators, 1912–1945
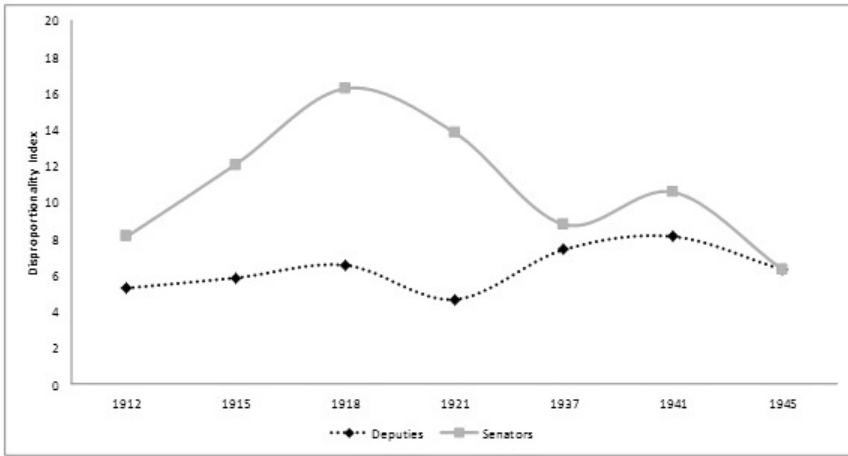
Source: Prepared by the authors based on official results.

Averaging the number of inhabitants per deputy to be elected in all districts, an average and a standard deviation are obtained. With these data it is possible to construct the variation coefficient. This is clearly higher in 1921 than in 1932 (table 9). This then shows greater population imbalance in the districts in 1921 or, in other words, more malapportionment. This idea is reinforced by counting the number of districts one standard deviation above and below the mean. Whereas in 1921 the figure was over 40 percent, in 1932 it was barely over 30 percent. The reform therefore improved the ratio between the number of inhabitants and the number of deputies to be elected.

CONCLUSIONS

The case of Chile confirms that there is no single route to proportionality. From Boix we learn that one such route is the perception of a threat to the larger parties from the progress of emerging parties or the incorporation of new voters. Other authors show that proportionality is linked to the need to establish cooperation mechanisms among social groups or to overcome the "partisan biases" of electoral systems. In Chile, which previously had a CVS, different problems of strategic coordination were the principal factor explaining the reform.

Concretely, apart from the important facilitating role played by two other factors (the internal political crisis and institutional emulation), the relevant points to understand the reform are the following:

- By adopting the proportional system a number of dilemmas of strategic coordination were resolved, particularly in districts of magnitudes higher than 4.

Table 9. Malapportionment, 1921 and 1932

	1921	1932
Average number of votes per deputy to be elected	2,693	1,671
Standard deviation	497	785
Variation coefficient	0.47	0.18
Number and percentage of districts with more than one standard deviation above the average	6 (28.5%)	4 (15.3%)
Number and percentage of districts with more than one standard deviation below the average	5 (12.5%)	4 (15.3%)
Total percentage of districts with +1 or −1 standard deviation	40.7%	30.6%

Source: Prepared by the authors based on official results.

- By opting for PR, the candidates of each party contributed to the success of the other candidates of the list, which saved the costs of negotiation that the CVS required. The candidate-oriented system became a party-oriented system. With PR, it was no longer necessary for parties to calculate the optimum number of candidates to present or to direct voting distribution to enhance representation.
- Equally, the party tensions generated by the need to exclude certain candidates diminished greatly with a greater average M and a system of lists.
- The new system contained mechanisms for interparty cooperation. This permitted parties to enter into flexible negotiations and joint efforts to achieve better representation.
- With the new PR, the magnitude of malapportionment was reduced.
- Even though the leaders of the reform in 1925 concentrated their argument on the problems of strategic coordination, the evidence (albeit mixed) suggests that achieving greater proportionality in the Senate and ensuring it in the Chamber of Deputies over the longer term was an additional objective of the reform.

Therefore, the reform was designed principally to strengthen the parties and to contribute to less complex strategic coordination. The central point for its authors was that candidates should be loyal to the party and that the votes of candidates should finally strengthen the party and not benefit them alone. Following the decision to introduce proportionality, the creation of interparty coordination mechanisms was added.

Chile is a good case study for observing a different route to proportionality. The explanation begins with the CVS, which imposed on the parties different dilemmas of strategic coordination that were in need of solution. These dilemmas were distinct from those faced by countries that arrived at a PR system from a majoritarian system like the SMP or a two-round system. Therefore, the Chilean case provides a useful source of alternative hypotheses about changes in the electoral

system. In addition, it shows the importance of considering other facilitating factors, such as the political context and institutional emulation.

NOTES

1. The concept of an electoral system is understood as defined by Nohlen (1995).

2. We refer to the arguments of the politicians. There was no strictly academic discussion of the subject.

3. Cusack et al. (2007) maintain that the adoption of proportionality is linked to the need for creating institutional mechanisms favoring cooperation between entrepreneurs and skilled workers. These groups share an interest in having a regulatory system more favorable to social stability (e.g., a social security system) and agree that a PR system is best for fostering a "cross-class compromise" (2007, 388). Thus, Cusack et al. link the emergence of proportionality to certain characteristics of the central players' economic organization and interests. Although it is undeniably useful in other cases, this argument does not apply to Chile. In 1925, the economic structure and the organization of interests in Chile were very far from those of the countries discussed by Cusack et al. Therefore, to examine them here would be simply inappropriate. Blais et al. (2005) refute Boix's argument, indicating that the adoption of PR occurred mostly in countries "that had a majority system" (i.e., a two-round system), which had produced multiparty systems and coalition governments, as well as "great uncertainty as to the optimal strategies for winning elections" (2005, 190). This was certainly not the case for Chile. Moreover, Calvo maintains that the transition took place within the framework of an expansion of the franchise, which "resulted in a substantial increase in the number of parties, and consequently, that adversely affected well-established political elites" (2009, 256). Given that an expansion of the franchise did not happen in Chile, this argument is not applicable to this case.

4. In 1874 the CVS was introduced only for elections of deputies. In 1890 it was broadened to include elections of senators and presidential elections (members of the electoral college).

5. For example, Navia argues that assuming that the rightist parties would not obtain a parliamentary majority (which would be held by the center-left opposition), the government designed a system to guarantee the future opposition (the right) "enough seats to be able to exercise a veto over legislative initiatives of the majority" (2005, 261). See also Siavelis 2008, 437. Zucco holds a different position, arguing that the binomial system does not have a bias in favor of the rightist parties (2007, 313).

6. There is abundant literature on the institutional breakdown of 1924–25. See, *inter alia*, Donoso 1952; Nunn 1976; Ramírez Necochea 2007.

7. Surplus votes: the votes a candidate received over and above the "electoral quotient."

8. For this analysis, we first identify the districts in which the parties presented candidates but obtained no seats, and then we add up these lost votes and calculate the percentage they represent of the total number of votes cast for each party. We are aware of the limitations of this calculation in that it does not include the votes lost by parties when they obtained fewer seats than candidates presented. This is due to the absence of disaggregated data for each candidate, which makes it impossible to calculate the "total loss" for each party.

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