

The 2-seat Proportional Representation Arrangement as an Insurance Mechanism against Defeats: What Can Risk-Averse Office Holders Do?¹

Patricio Navia

Center for Latin American Studies

New York University

53 Washington Square South 4W

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Universidad Diego Portales, Chile

pdn200@nyu.edu

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Abstract

Electoral rules can be understood as an insurance mechanism against uncertainty in electoral outcomes. District magnitude in proportional representation systems can be used as tools to reduce the uncertainty associated with elections. When choosing electoral rules, electoral designers establish the level of insurance against electoral defeats. Risk-averse designers will select rules where the damage of an electoral defeat will be minimized by the distortions produced by the electoral rules. Once electoral rules that insured against electoral defeats are in place, will risk-averse office-holders have any incentives to change them in favor of rules where voters have a greater influence on who gets elected? Using the case of Chile's unusual across the board 2-seat proportional representation system, I argue that will not be enough legislative support to change the status quo once an electoral set of rules that successfully insures against electoral defeats is adopted.

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Introduction

In this paper, I first provide an account of how the current electoral rules that govern Chilean legislative elections were devised. I argue that, contrary to what it has been claimed by defenders of the so-called binomial system, the system was specifically designed as an insurance mechanism against an electoral defeat. Anticipating that the parties loyal to the dictatorship would be on the minority, the Pinochet regime devised an electoral system that would dramatically raise the threshold for any party to transform an electoral majority into a commanding majority of seats in the legislature. I then explore how the electoral rules adopted have effectively worked as an insurance mechanism that so far (1989-2001) has favored the conservative parties grouped in the Alianza por Chile coalition more so than the governing center-left *Concertación* coalition. I show how the parties of the right have consistently achieved a higher share of the seats in the legislature than their share of the vote would have produced under alternative electoral rules. The first part of the paper is mostly descriptive.

Then I move on to explore the way in which the electoral system actually works as an insurance mechanism. I discuss how the binomial system requires one of the highest thresholds among all proportional representation formulas for a single party to transform an electoral majority into a majority control of the legislature. Combined with power to gerrymander district boundaries and mal apportion districts, an electoral designer who adopts a binomial system can effectively shield her party against the negative effects associated with an electoral loss. I also discuss how the binomial system provides more incentives than alternative systems for parties to divert from moderate positions. Drawing on existing literature on the effects of electoral rules, I argue that the binomial system differs dramatically from majoritarian system in creating incentives for parties to deviate from moderate, median voter-preferred, positions. The second part of this paper is mostly theoretical and applicable to any situation where new electoral rules are being written.

Finally, taking on the observation often highlighted about electoral system being sticky (difficult to change), I explore the reasons why the binomial system has not been changed in Chile. In addition to restating the predictable argument that the opposition of conservative parties to alter the system that has benefited them in the past, I explore the micro and macro level reasons that has led legislators from the center-left *Concertación* coalition to favor changes to the electoral rules at the national level but oppose significant changes that would alter the way in which they are individually elected. Thus, while *Concertación* legislators would favor a change in principle, they are not proactive proponents of a change in the electoral system that allowed them to win their seats in the first place.

I. The Binomial System in Chile

A) Its Origins

Chile has used an open list proportional representation system for all its Senate and Chamber of Deputies elections since 1989. Senators are elected for 8-year terms and Deputies are elected for 4-year terms. Senatorial elections are staggered, with half of the senatorial districts electing two senators each every four years. Two legislators are elected in each of the 19 senatorial districts and 60 Chamber of Deputies districts using the D'Hondt seat allocation system.² Thus, seats are allocated first to parties. Then, within parties or coalitions, candidates are allocated seats according to their individual votes.

The prevalent belief about the electoral system devised by the Pinochet dictatorship (hereafter, the electoral designer) is that it had two objectives on mind: to reduce the number of existing political parties and to guarantee as much representation as possible to conservative parties.³ Because the chosen across-the-board 2-seat per district magnitude is lower than what existed before 1973, some have described the system as 'majoritarian' or 'semi-majoritarian' (Fernández 1998, Nohlen 1994: 238). Because of its small district magnitude, the system is also cited as having a reductive effect in the number of political parties and even credited for the consolidation of a two-party (two-coalition) system in post 1990 Chile (Libertad y Desarrollo 2001).

It was not a foregone conclusion that the electoral designers were going to prefer proportional representation (PR) to single-member districts (SMD) for the new constitutional arrangement. The three commissions charged with drafting a new constitution,⁴ varied widely in the electoral formulas proposed. Variations of PR and SMD were proposed before the final 2-seat district formula was adopted for Senate elections in the 1980 Constitution. In the past, SMD and PR rules had been alternated as ways electing legislators. In that sense, the question of whether SMD or PR should be at the core of the electoral rules in place was by no means an issue settled by tradition. The electoral designer opted for PR although his stated objective was to reduce the number of existing political parties and claimed that he had opted for a 'majoritarian system'.

The first commission charged with proposing a new constitutional draft was the Ortúzar Commission. It proposed a system that partially resembled the pre-1973 arrangement. While proposing one across-the-board district magnitude for all Chamber of Deputies districts (article 48, in Bulnes Aldunate 1981: 259), the wording of that article was particularly confusing. Article 48, paragraph 1, stated that "...for Chamber of Deputies elections a procedure shall be utilized such that it produces an effective representation of majorities either through single-member or multi-member districts, as determined by law. Every district will elect the same number of Deputies and independent candidates will participate under equal conditions as candidates representing political parties." The

² For an explanation of how different seat allocation formulas work see the Administration and Cost of Elections Project website, <http://www.aceproject.org/main/english/es/esc06.htm>

³ Sigmund (1993: 185), Garretón (1991), Nohlen (1994: 238-242), Collier and Sater (1996: 381), Siavelis (1997a: 34, 1997b, 2000: 34-25) and Portales (2000: 39).

⁴ For a history of the 1980 Constitutional making process, see Huneus (2001), Barros (2002) and Navia (2003).

ambiguity of the wording reflects an internal conflict between the Ortúzar Commission members over their preferences of electoral systems.

For the Senate, the Ortúzar Commission proposed a national senatorial district where Senators would serve for 8-year and where half of the 30 seats would be elected every four years. The draft also specified provisions for open-lists and non-cumulative voting. The 15 candidates with most individual votes would be elected. The Ortúzar Commission proposed that each voter would select a minimum of 5 and a maximum of 10 candidates, with the exact number would be determined by the Electoral Law. Logically, *that number* (between 5 and 10) would be crucial to establish minimum thresholds for political representation. If the Electoral Law were to establish that voters could select 10 candidates to fill the 15 open slots in every election, a simple majority of voters could elect 66% of the seats. In fact, if the number of candidates selected by each voter was to be at least 8, the largest party could command majority control of the Senate. However, if voters could select fewer than 8 candidates, parties that expected an electoral majority would face a coordination problem. In addition, the Ortúzar Commission contemplated the appointment of at least 12 designated senators (plus all former presidents). In this way, non-elected members would comprise about 30% of the Senate.

A second commission charged by the military junta to review the constitutional draft proposed by the Ortúzar Commission was the Council of State. It proposed 120 single-member districts for the Chamber of Deputies and single member regional districts for the Senate. The Council proposed that each region should elect one senator, except the three most populated regions (two would elect 3 senators and the other would elect 6 senators). Although the Council did not specify how senators from the more populated regions would be elected, it would be natural to assume PR. Altogether there would be 22 elected senators (10 from single member district regions and 12 from PR from three multi-member district regions). The Council also included provisions for 9 non-elected senators who would serve full 8-years terms.

After the Council of State presented its proposal, the Junta appointed a new commission to make the final decisions on the text of the new constitution. The so-called Fernández Commission drew from both the Ortúzar and the Council of State proposals to entrench a new set of electoral rules in the new Constitution. Just as the Ortúzar Commission had proposed, the final version left the rules for the composition of the Chamber to the appropriate Organic Law but established the size of the Chamber in 120 members. For the Senate, the new constitution followed the Council of State proposal but drastically altered the nature of regional representation. Rather than electing senators from single member districts, the constitution stated that each region would elect 2 senators—setting a precedent for the binomial system—thus choosing PR over Single Member District as the defining characteristic of senatorial representation. The new Constitution established a Senate with 26 elected members and at least 9 appointed senators.

Although the electoral designers had the ability to draw electoral districts at will, they had little certainty about the electoral support they would enjoy by the time the first elections were to be held in 1988. Thus, the choice of the electoral formula for the Chamber of Deputies was not entrenched in the Constitution. Article 43 established that the Chamber of

Deputies is comprised of 120 members elected by direct vote in the electoral districts determined by the appropriate organic law. For the Senate, the designer seemed to have entrenched the electoral rule in the Constitution. The principle for a 2-seat PR electoral rule can be derived from Article 45 of the 1980 Constitution. While Article 43 is perfectly compatible with any electoral formula, Article 45 is only compatible with a PR formula. By establishing that each region would elect two Senators *concurrently*, the designer ruled out the possibility of single member districts for Senate elections.⁵ Article 45 establishes that the Senate is comprised of members elected directly in each of the 13 regions. Each region elects two senators, in a way determined by the appropriate Organic Law.⁶ In addition to having the power to appoint 9 senators (1/4 of the total seats), devising an electoral rule that would give the designer’s party control of enough seats would almost guarantee majority control of the Senate to the designer’s party under most electoral outcomes.

Table 1. Composition of the Legislature Proposed for the 1980 Constitution

Proposal	Senate	Chamber of Deputies
Pre-1973 Status Quo	50-member senate elected from ten 5-member districts by PR (d’Hondt)	150-member Chamber elected from 28 districts by PR (d’Hondt)
Ortúzar Commission	30-member senate elected on a single national district where voters choose N candidates for 8-year periods, with the Electoral Law determining N, provided that $1/3 < N < 2/3$. 15 Senate seats are elected every four years. Plus 9 appointed senators.	150-member Chamber elected in single member or proportional representation districts as determined by Law provided that all districts be of equal size and that the Law should “effectively reflect the electoral majorities.”
Council of State	22-member senate elected by regions in single member districts, except Regions V and VIII (3 seats) and Metropolitan Region (6 seats), half of the senate elected every four years. Plus 9 appointed senators.	120-member Chamber elected in single member districts with run-off provisions.
1980 Constitution	26-member senate elected by regions (2 per region) with half of the regions electing two 8-year term senators every four years, plus 9 appointed senators and all former presidents taking lifetime seats in the Senate.	120-member Chamber elected in a manner determined by the appropriate Organic Law.

Despite having a good scheme to prevent an opposition majority in the Senate, the designer did not take risks and waited until the very end to determine the electoral rules for the Chamber of Deputies. The choice of the actual electoral rule for Chamber of Deputies elections and the details of the electoral rule to be used for Senate elections were outlined in Organic Law 18,700 (*Ley Orgánica Constitucional sobre Votaciones Populares y Escrutinios*), enacted on April 19, 1988. But the actual drawing of district boundaries was

⁵ The origin of the binominal system is Article 45. Given that there were three very small regions, it was highly unlikely that the designer even considered dividing those regions into 2 single member senatorial districts.

⁶ Article 45: *El Senado se integrará con miembros elegidos en votación directa por cada una de las trece regiones del país. A cada región corresponderá elegir dos senadores, en la forma que determine la ley orgánica constitucional respectiva.*

made after the 1988 plebiscite, when Law 18,799 was approved by the Junta, signed by the president and declared constitutional by the Constitutional Tribunal on May 12, 1989.

When the Legislative Commission was instructed to write the Organic Law for elections in early 1988, the electoral designer made its position clear. In the legislative message sent by President Pinochet to the legislative commission, the goal behind the adoption of a 2-seat district formula for the Chamber of Deputies was justified as “*the establishment of a majoritarian electoral system that gives representation chiefly to the largest public opinion groups, that has a certain reductive effect in the number of parties, that prevents the repetition of the awful electoral experience of the past, that offers transparency to the voter about the meaning and effect of his vote and that facilitates pragmatism in decision making for the common good of the country, fostering moderation among all political actors.* For those reasons, this project establishes a uniform electoral system that is applied simultaneously—in the same elections, as it is required by the Constitution—and that provides for the election of a few deputies per district, namely two deputies per district” (in *Historia de la Ley 18799*: 39, italics are mine)

In the technical report attached to the President’s message to the legislative commission, the chief explanation to justify the choice of a 2-seat district was restated: “Is it indifferent for the country to fall again into electoral and partisan situations of the decades before 1973, characterized by an absurd competition to look and act more extremist every time? ...is it not indispensable that the electoral system, if not able to create, at least fosters moderation in political positions and facilitates, once for all, that the more moderate positions become take on a more protagonist role than in the past?” (*Historia de la Ley 18799*: 48).

In arguing against PR systems, the technical report stated that, “whatever form they take, proportional representation systems lead us fatally into excessive multi-partisanship and foster ‘ideologicalisms’ that prevent national progress, deflect attention from real problems, confuse public opinions with merely intellectual pseudo-solutions, with no real roots in the true nature of men and society and no connection with society’s immediate needs, favoring demagogy by preventing the people from identifying the fundamental issues” (*Historia de la Ley 18799*: 49). The technical document rejects the adoption of a single member district because “*that would give control of the Chamber to an insurmountable majority that could not be stopped with any constitutional quorum.* Likewise, we reject the adoption of a 3-seat district because such system ratifies the electoral status that we have experienced in which more than two-thirds move away from the political center...” (*Historia de la Ley 18799*: 51; italics are mine).

When presenting the Organic Law for final approval, months after the 1988 plebiscite, the Fourth Legislative Commission of the Junta produced a document explaining its rationale to adopt minor changes to the legislation sent by Pinochet and justifying the 2-seat district formula. “Taking into account the country’s need to escape political, economic and social underdevelopment, we consider convenient to construct a system that guarantees, on the one hand, governability of the country and the efficiency of the legislative power and, on the other, the representation of minorities without the danger of multi-partisanship” (*Historia de la Ley 18799*: 267). Claiming that the binominal system had its roots in the

1980 Constitutional provisions for the Senate, the 4th Legislative Commission argued that “it is important to keep in mind that the majoritarian binomial system was practically entrenched in the Constitution for the election of Senators, and that this system is more consistent with the presidential system established in the Constitution, contrary to what is observed in proportional representation systems which are more appropriate for parliamentary political systems (*Historia de la Ley 18799*: 268). The legislative commission believed that this system would guarantee “the existence of *a minority* and would foster the formation of no more than three or four political streams with large popular support” (*Historia de la Ley 18799*: 25. italics are mine).

Although the apparent objective of the designer was to foster the development of a party system with few parties and to prevent polarization, the choice of electoral formula for Senate elections was not the most appropriate way to achieve those objectives. Since Duverger (1954) and Downs (1957), there are compelling arguments—and empirical evidence—that single member districts foster the development of a two-party system. The electoral designers were well aware of that fact. Their stated intention might have been the desire to foster the development of a two-party system and to prevent polarization, but there must have been a reason why they opted for a 2-seat PR arrangement as early as in the 1980 Constitution—and certainly after the 1988 plebiscite—instead that for a SMD arrangement. In President Pinochet’s technical report, the chief concern against SM districts was that it *would give control of the Chamber to an insurmountable majority that could not be stopped with any constitutional quorum*. The fact that such document was written when public opinion polls indicated that the majority of the electorate opposed Pinochet can be interpreted as meaning that the *insurmountable majority* would be the democratic opposition.

B) Its Observed Effects

Table 2 shows the electoral results by districts for the 1989, 1993, 1997, 1999, 2000 and 2001 elections and reconstructs the results of the 1988 by aggregating the results according to the electoral districts drawn in 1989. The *Concertación* defeated the *Alianza* in most districts in most elections. The best *Alianza* showing was in 1999, when its presidential candidate defeated the *Concertación* candidate in 28 districts. In the 1988 plebiscite, the “Yes” vote in the 1988 plebiscite came ahead in 15 districts, only 25% of all districts. The electoral supremacy of the *Concertación* over the *Alianza* continued in 1989 when the *Concertación* carried 56 of the 60 districts in the Chamber of Deputies election, in 1993 when the *Concertación* won 53 districts, in 1997 when it clinched 48 districts and in 2001, when it won in 36 districts.

Although the choice of PR over SM districts can be traced to Article 45 of the 1980 Constitution, the decision to choose PR for the composition of the Chamber of Deputies was undeniably informed by the expected results of the 1988 plebiscite. Knowing that a majority of the electorate would vote for the “No” option and that such majority could very likely become the electoral support base for the opposition in the 1989 election, the choice of SMD would have represented a suicidal move on the part of the electoral designer. By choosing SMD rather than PR, the electoral designer would have facilitated the

consolidation of an opposition *insurmountable majority that could not be stopped with any constitutional quorum*.

Table 2. Simulation of SMD Winner in Chilean Elections 1988-2000

	# of Districts Where Coalition Obtained Plurality or Majority of Votes						
	1988	1989	1993	1997	1999	2000	2001
Concertación	45	56	53	48	32	48	36
Alianza	15	4	17	12	28	12	23
Total	60	60	60	60	60	60	60

Source: author's calculations with data from <http://www.elecciones.gov.cl> (candidates from other parties and independents are excluded).

Adopting the most efficient electoral rule to foster a 2-party system—single member districts—would have meant a resounding electoral defeat for the designer's party in the 1989 election. For that reason, even though the designer might have preferred a SMD arrangement for ideological reasons, electoral considerations weighted heavily in influencing his decision to reject a SMD formula and choose instead PR. This was so even though the designer was clearly committed to adopting rules that would reduce the number of parties and reduce the incentives for political polarization, but the need to minimize an imminent electoral loss in the upcoming presidential and parliamentary election led the designers to stop considering a SMD arrangement after the resounding defeat of Pinochet in the 1988 plebiscite. Even though the choice of any PR formula would have polarizing consequences, the electoral designer moved to adopt an across-the-board 2-seat district formula rather than the more obvious SMD with runoff.

The results for Senate elections show very clearly the effects of the binomial system in producing an over-representation for conservative parties. In all senatorial elections since 1989 (4 elections), the *Alianza* has received a seat share higher than its vote share. The *Concertación* has also benefited from a higher seat share than its vote share, but the relative benefit for the *Alianza* has been more significant. Despite having obtained an average of 38.2% of the vote, the *Alianza* has obtained an average of 46.8% of the Senate seats. The *Concertación*, with an average 53.2% of the vote has received an average of 53.2% of the seats.

Table 3. Electoral Results and Seat Allocation, Senate Elections, 1989-2001

	1989		1993		1997		2001	
	% vote	% seats	% vote	% seats	% vote	% seats	% vote	% seats
Concertación	54,6	57,9	55,5	50	49,9	55	51,3	50
Alianza	34,9	42,1	37,3	50	36,6	45	44,0	50
Others	10,5	0	7,2	0	13,5	0	4,7	0
Total	100	#38	100	#18	100	#20	100	#18

Source: author's calculations with data from <http://www.elecciones.gov.cl>

Although it would be a mistake to assume that voters and parties would have behaved the same way they did under different electoral rules, by conducting simulations and assigning seats to all coalitions under different district magnitudes, we can assess the effect of the binomial system in the Chilean legislature. As shown in Tables 4-7, the best seat share for

the *Alianza* coalition, given its vote share, is that under a district magnitude of 2 seats per district in the Chamber of Deputies. The simulations below were produced using the results for the Chamber of Deputies elections for the 1989, 1993, 1997 and 2001 elections. Seats were assigned using the d'Hondt seat allocation formula (currently used to assign seats in Chile). For example, in 1989 the *Concertación* obtained at least a plurality in 55 districts, the *Alianza* coalition won in 4 districts and the remaining district went to another coalition. If SMD had been used instead of the binomial system, the *Concertación* would have received 91.7% of all the seats in the Chamber, despite having received only 51.5% of the vote. Naturally, had a true majoritarian system been in place, the parties would have presented different candidates. The conservative parties' candidates would have appealed to more moderate voters and their strategies to secure seats would have been different.

As shown in Table 4, the *Concertación* obtained 51.5% of the vote in 1989. Under a SMD arrangement, that coalition would have received 91.7% of the seats. Under more permissive PR arrangements, that coalition would have received even more seats than it did under the binomial system. Because the d'Hondt formula is known to favor the party with the most votes, a more permissive electoral system would have helped the *Concertación* transform its electoral majority into an ample commanding majority of seats in the Chamber of Deputies immediately after the transition to democracy. For the conservative coalition, the best seat allocation occurs under the 2-seat arrangement. With merely 34.2% of the vote, the *Alianza* received 40% of the seats in the Chamber. Under alternative district magnitudes, the *Alianza* would have received a smaller share of seats in the Chamber. In fact, under no other DM would have the *Alianza* received as many seats as it did under the 2-seat arrangement adopted earlier in 1989.

Table 4. Simulation of Seat Allocation Using Different District Magnitudes, Chamber of Deputies Election, 1989

Coalition	Total Vote (%)	1-seat districts	2-seat districts	3-seat districts	4-seat districts	5-seat districts
# seats						
Concertación	51,5%	55	69	109	144	177
Alianza (Democracia y Progreso, RN-UDI)	34,2%	4	48	64	84	109
PAIS	5,3%	1	2	6	11	13
Independents	1,8%	0	1	1	1	1
Total	92,8% ^a	60	120	180	240	300
% seats						
Concertación	51,5%	91,7	57,5	60,6	60,0	59
Alianza (Democracia y Progreso, RN-UDI)	34,2%	6,7	40,0	35,6	35,0	36,3
PAIS	5,3%	1,7	1,7	3,3	4,6	4,3
Independents	1,8%	0	0,8	0,6	0,4	0,3
Total	92,8%	100	100	100	100	100

^a The remaining votes went to other conservative parties. Simulations were conducted using the same d'Hondt method currently used. Source: author's calculations with data from <http://www.elecciones.gov.cl>

In 1993, a similar pattern was observed. With 36.7% of the vote, the *Alianza* (then known as a *Unión por Chile*) secured 41.7% of the seats. Under a majoritarian system, the *Alianza* would have barely received 11.6% of the seats, since that coalition edged the *Concertación* in 7 out of the 60 Chamber of Deputies districts. Under alternative PR district magnitudes, the *Alianza* would have fared worse than it did with the binomial system. Although the *Concertación* also received a slightly higher share of seats (58.3%) than its share of votes (55.4%), the predicted effects of the d’Hondt seat allocation formula—that rewards the party with the highest vote share—are more evident with higher district magnitudes than with the binomial system. Just as it happened in 1989, the *Alianza* benefited more than the *Concertación*, in relative terms, by the existence of the binomial system. Moreover, under no alternative district magnitude arrangement would the *Alianza* have received a higher share of seats than under the existing binomial system. Although the system was designed in 1989, its intended effects were still present four years later. The *Alianza* had successfully transformed its share of votes into a larger share of seats in the Chamber of Deputies in a more convenient way than under any other district magnitude.

Table 5. Simulation of Seat Allocation Using Different District Magnitudes, Chamber of Deputies Election, 1993

Coalition	Total Vote (%)	1-seat districts	2-seat districts	3-seat districts	4-seat districts	5-seat districts
# seats						
Concertación	55,4	53	70	113	151	183
Unión por Chile (RN-UDI)	36,7	7	50	67	89	117
PC	6,4	0	0	0	0	0
Independents y otros	1,4	0	0	0	0	0
Total	100%	60	120	180	240	300
% seats						
Concertación	55,4	88,3	58,3	62,7	63,0	61,0
Unión por Chile (RN-UDI)	36,7	11,6	41,7	37,2	37,0	39,0
PC	6,4	0	0	0	0	0
Independents y otros	1,4	0	0	0	0	0
Total	100%	100	100	100	100	100

Simulations were conducted using the same d’Hondt method currently used. Source: author’s calculations with data from <http://www.elecciones.gov.cl>

In 1997, the *Concertación* barely obtained a majority of votes (50.5%), but it achieved a sufficiently large majority of seats in the Chamber (57.5%). Although the *Concertación* electoral dominance would have benefited more if a single member district seat allocation formula had been in use—the *Concertación* won in 80% of the districts—its seat share was significantly higher than its vote share. Yet, under higher district magnitudes, the *Concertación*’s electoral dominance would have been significantly higher than it was under the binomial system.

The *Alianza*, having received 36.2% of the vote, secured 39.2% of the seats. Again, the *Alianza* would not have done as well in transforming its vote into seat share under any other district magnitude. Yet, the *Alianza*’s ability to transform its minority electoral support into a higher share of seats was undermined by the presence of independent

conservative candidates. Three of the four independents and small-party candidates that won seats in 1997 eventually joined existing *Alianza* parties (2 cases) or ended voting with the *Alianza* (one case). The fourth independent that won a seat joined the *Concertación*. Thus, the seat distribution in the Chamber of Deputies after the 1997 election ended up being identical to what was observed in 1993, despite a drop in the vote share for the *Concertación*.

Table 6. Simulation of Seat Allocation Using Different District Magnitudes, Chamber of Deputies Election, 1997

Coalition	Total Vote (%)	1-seat districts	2-seat districts	3-seat districts	4-seat districts	5-seat districts
		# seats				
Concertación	50,5%	48	69	111	140	175
Unión por Chile (RN-UDI)	36,2%	12	47	65	92	116
PC	7,4%	0	0	0	2	3
Independents	2,8%	0	4	4	6	6
Total	100%	60	120	180	240	300
		% seats				
Concertación	50,5%	80	57,5	61,7	58,3	58,3
Unión por Chile (RN-UDI)	36,2%	20	39,2	36,1	38,3	38,6
PC	7,4%	0	0	0	0,8	1
Independents	2,8%	0	3,3	2,2	2,5	2
Total	100%	100	100	100	100	100

Simulations were conducted using the same d'Hondt method currently used. Source: author's calculations with data from <http://www.elecciones.gov.cl>

Finally, for the 2001 legislative elections, the same phenomenon can be observed. The *Concertación* won in an overwhelming number of districts—36 out of 60—but only marginally edged the *Alianza* in the national vote (47.9% to 44.3%). Still, the *Concertación* was able to secure a clear majority of seats (51.7%). Yet, the *Alianza* also benefited from the binomial system by transforming its vote share (44.3%) into a larger seat share (47.5%). Under no alternative district magnitude would the *Alianza* have received a larger seat share than it did with the binomial system.

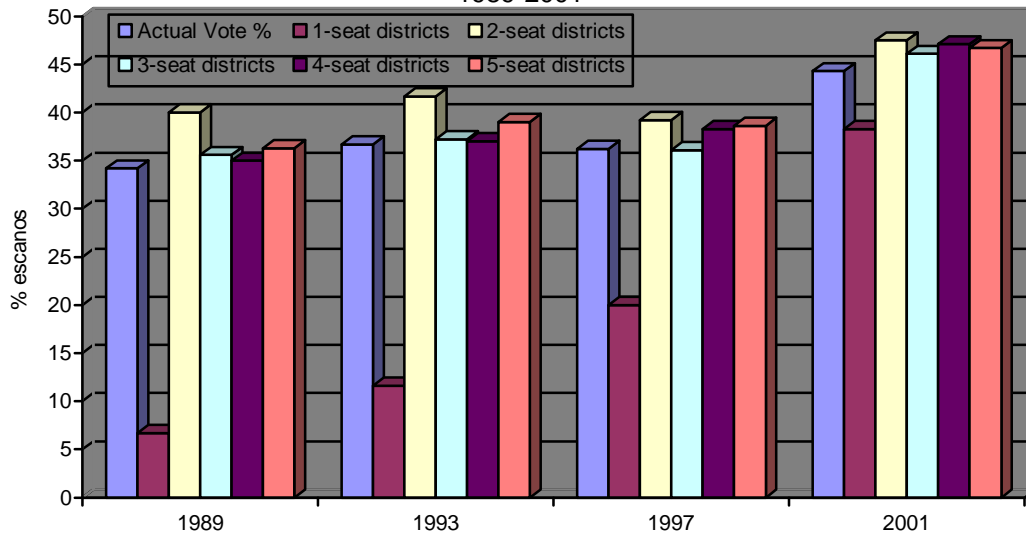
Table 7. Simulation of Seat Allocation Using Different District Magnitudes, Chamber of Deputies Election, 2001

Coalition	Total Vote (%)	1-seat districts	2-seat districts	3-seat districts	4-seat districts	5-seat districts
		# seats				
Concertación	47,9%	36	62	95	126	159
Alianza por Chile (RN-UDI)	44,3%	23	57	82	113	140
PC	5,2%	0	0	0	0	0
Independents and others	1,5%	1	1	1	1	1
Total	100%	60	120	180	240	300
		% seats				
Concertación	47,9%	60,0	51,7	52,8	52,5	53,0
Alianza por Chile (RN-UDI)	44,3%	38,3	47,5	46,1	47,1	46,7
PC	5,2%	0	0	0	0	0
Independents and others	1,5%	1,7	1,7	1,7	1,7	1,7
Total	100%	100	100	100	100	100

Simulations were conducted using the same d'Hondt method currently used. Source: author's calculations with data from <http://www.elecciones.gov.cl>

Figure 1 shows the seat share that the *Alianza* would have received in the four elections under different district magnitudes, with the same d'Hondt seat allocation formula. That figure clearly depicts that in all elections for all years, the *Alianza* did better under the binomial system than it would have under any other district magnitude. By choosing an across-the-board district magnitude of 2, the electoral designers selected a system that benefited the conservative parties more than any alternative arrangement. Naturally, in doing so, the designers also created incentives for the conservative coalition to consolidate an electoral strategy that did not require an aggressive effort to seek an electoral majority. It was sufficient to secure a high enough threshold—combined with the presence of non-elected conservative senators—to make it impossible for the *Concertación* to transform its commanding majority of votes into an equally effective commanding majority of seats.

Figure 1. Simulation of # Seats for the Alianza, Given its Vote Share Under Different District Magnitudes Using PR, Chamber of Deputies, 1989-2001



Thus, in all Chamber of Deputies elections and, more importantly, in Senate elections, the *Alianza* successfully obtained a larger share of seats than its share of votes. That, in addition to the presence of non-elected senators, has allowed the *Alianza* to exercise majority control in the Senate—or at least to prevent the *Concertación* from exercising majority control—ever since democracy was restored in 1990. Despite the constant *Concertación* majority in the electoral preferences for the Senate, the *Concertación* has not been able to obtain a majority control of the Senate since democracy was restored in 1990.⁷ Since democracy was restored, the *Alianza* has benefited the most, in relative terms, from the distortional effects produced by the binominal electoral law.

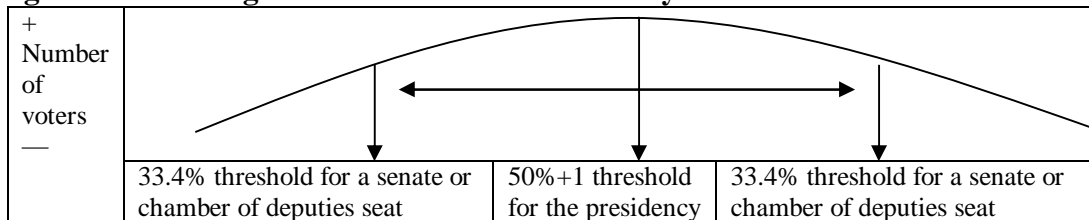
⁷ Except for a brief period of time between March 2000 and March 2002, when the entrance of former president Eduardo Frei and the impeachment of a conservative senator gave the *Concertación* a 24-23 majority in that chamber.

II. The Theoretical Effects of the Binomial System

A) Incentives to Reduce Polarization and Fragmentation

The 2-seat PR arrangement has built-in incentives that lead to polarization rather than to convergence towards the median voter (Magar, Roseblum and Samuels 1998). Figure 2 shows the centrifugal incentives of a PR 2-seat arrangement—using the d’Hondt seat allocation formula—as compared to the centripetal incentives of SMD. Whereas under a 2-seat PR, a candidate can secure a seat with $1/3 + 1$, strictly speaking), under a FPTP with runoff, $50\% + 1$ is required to secure a seat. As with all PR arrangements, the incentives to polarization—or at least the fact that lower electoral thresholds allow minority parties to achieve representation—were entrenched in the 1980 Constitution in Article 45 (composition of the Senate). True, when compared to more permissive PR systems (like the one in existence on Chile before 1973), the minimum threshold to secure a seat is markedly high. Yet, whereas a 16.7% of the vote in a 5-seat would get you only 1 seat (20% of the seats), 33.3% of the votes in a 2-seat district would get you 50% of the seats. Understood as an insurance mechanism, PR with district magnitude of 2 allows you to secure 50% of the seats with slightly more than $1/3$ of the votes. But if the intention was to foster the convergence of parties towards the median voter, the electoral designers failed to use the most effective tool at hand: entrenching SMD provisions in the Constitution.

Figure 2. Centrifugal incentives of the binomial system



As I argued above, the electoral designers had a different objective when choosing PR over SMD. Rather than fostering the development of a two-party system, the designers wanted to maximize the electoral possibilities of their political party, assuming that the electorate would not give them overwhelming electoral support. For that reason he chose an across-the-board 2-seat district magnitude. But was the intended reductive effect in the number of parties achieved by setting district magnitude at 2 seats per district, or did political parties manage to accommodate to the new rules and continued to exist despite the reductive incentives?

When considering the number of political parties that have been active during the post-1990 period, the reductive effect of the electoral system has apparently failed to work. Cox (1997) argues that Duverger’s Law (1954, see Riker 1982) can only empirically predict an upper-bound limit in the number of parties at the district level. Two-party systems could emerge in countries with PR but no multi-party system could exist at the district level in countries with SMD. That upper-bound limit discussed by Cox is the district magnitude (DM) plus one (Cox 1997: 139-148)

$$\text{Maximum number of parties} = DM + 1$$

Taagepera and Shugart (1993: 455) suggest a more complicated formula, where the number of parties is determined by: $\text{Maximum number of parties} = 1.15(2 + \log M)$. In both formulas, as M (district magnitude) increases the predicted maximum number of parties also increases. However, in the method proposed by Taagepera and Shugart, the number of parties increases less rapidly than in the simpler formula suggested by Cox. When testing this assertion in each of the 60 electoral districts for the 1993, 1997 and 2001 elections, the effective number of parties at the district level is actually lower than at the national level, but both formulas under predict the number of parties at the national and at the district level. The number of effective parties is still higher than predicted and, rather than decreasing, the effective number of parties increased from 1993 to 1997. In 2001, the number of effective parties decreased when compared to 1997, but it was still higher than in 1993.

Under Cox's formula, the number of parties in Chilean legislative elections should be 3 (DM plus 1). Under Taagepera and Shugart's, the number of parties should be 2.65. However, 12 different parties competed in 1993, 10 did so in 1997 and 9 political parties competed in 2001. Despite the decrease, the number is still higher than predicted by either formula. Even if we only consider electoral coalitions rather than individual parties, the number in 1993 was 4 (*Concertación*, *Alianza*—called *Unión por Chile* in 1993—, PH and PC—then MIDA—), it increased to 5 in 1997 and 2001. Using actual parties or 'coalition parties', the observed number is still higher than predicted by either method.

Yet, not all parties are the same or get a comparable share of the vote. It is not the same to have three strong parties that equally divide the vote than one strong party that carries an overwhelming majority and two smaller parties that barely get any votes. In other words, 30-30-30 is not the same as 65-15-20. In the first case, the three parties matter, whereas as in the second case the party with 65% of the vote pretty much can discard the other two parties. For that reason, rather than focusing on the actual number of parties, one should consider the number of relevant or effective parties. Taagepera and Shugart (1993) use an earlier formula proposed by Laakso and Taagepera to measure the effective number of parties. The objective is to establish "a non-arbitrary way to distinguish 'significant' parties from less significant ones" (1993: 455). The formula is:

$$N = (\sum p_i^2)^{-1}$$

Where N is the effective number of parties and p is the share of the votes won by the *i*th party. If we sum up the values for all the parties competing in the parliamentary elections of 1993, the effective number of parties is 6.8. The number increased to 7.3 in 1997 and decreased to 6.56 in 2001. Even when using the number of effective parties, the reductive effect of the electoral system seems to have failed as the number of effective parties increased from 1993 to 1997 and remained above 6.5 in 2001. Yet, that figure might be misleading because of the electoral pacts that parties form within the *Concertación* and *Alianza*. Instead of using the country as the unit of analysis, one should focus on what happens at the district level. When measuring the effective number of parties in the 1993, 1997 and 2001 elections by districts, there is some evidence of the reductive effect often

attributed to electoral rules. In 1993, the average number of effective parties was 3.67, higher than predicted by either formula, but understandable given the electoral dynamics existing as a result of the realignment of parties that occurred after 1990. The average effective parties for the 60 districts increased to 4.5 in 1997 and decreased to 3.71 in 2001. Yet, that contradicts the long-term reductive effect predicted by Duverger's Law. Rather than showing a constant decline, the effective number of parties has remained relatively stable over time at an average higher than predicted by either formula.

When two parties (or coalitions of parties) compete in a PR system with district magnitude of 2, there are two possible electoral results: one coalition wins both seats or the seats are split between the two coalitions. As it is extremely difficult for a coalition to double the vote of the other electoral coalitions, in most cases the seats are split between the two coalitions. The likelihood that it will be difficult to clinch both seats fosters additional competition within the coalitions. Because each coalition can have up to two candidates in every district, competition arises within the coalition between the candidates over the only seat their coalition is likely to obtain. Two races, then, take place. First, coalitions attempt to double the votes of other coalitions. In 1993, the *Concertación* doubled the votes of the *Alianza* in 11 districts and the opposite occurred in 1 district. In the remaining 48 districts, the two seats were split between the *Concertación* and the *Alianza*. In 1997, the *Concertación* clinched both seats in 10 districts and the *Alianza* did the same in 1. In 2001, there were 5 districts where the two seats went to the same coalition (4 for the *Concertación* and 1 for the *Alianza*). The second race takes place within each electoral coalition. Because their coalition will likely secure one seat, each candidate of the coalition rallies to obtain more votes than his or her coalition partner to secure a seat in parliament. The effective number of political parties in the 60 districts between 1993 and 2001 was 3.96, thus reflecting the dual nature of electoral competition (Magar, Roseblum and Samuels 1998).

In a strict sense, the reductive effect of Duverger's Law is observed, with the qualification that the district magnitude and the existence of electoral coalitions fosters a new competition which can be understood as two separate elections in single-member districts, one among *Concertación* parties and one among *Alianza* parties. With such an arrangement, there should be two coalitions competing for seats in any given district and two parties (or candidates) competing within each coalition. Between 1993 and 1997, there was an increase in the number of effective parties from 3.7 to 4.5. In part because the 2001 parliamentary elections were generally perceived as an aftermath of the 1999 presidential elections (where the Communist Party and other smaller parties almost disappeared), the effective number of parties decreased to levels observed in 1993, when the parliamentary election was held concurrently with presidential elections.

If the results in 1993 and 2001 correspond to the expectations of the reductive effect of Duverger's Law combined with the distortion created by the binomial system, the 1997 results departed from the expected effect of Duverger's Law. The number of effective political parties increased in 1997. In fact, only 7 districts observed a decrease in the number of effective parties between 1993 and 1997. Four out of the seven districts where there was a decrease in the number of effective parties from 1993 to 1997 were districts where the *Concertación* doubled the *Alianza* in 1993. Even in 2001, 28 districts had an

effective number of parties higher than in 1993. The evidence of a reductive effect of the electoral rules in the number of political parties is stronger at the district level than at the national level, but the number of parties remains substantially higher than predicted by either formula discussed above.

Table 8. Effective Number of Parties in Chamber of Deputies Elections, 1993-2001

Number of District	1993	1997	2001	Average 1993-2001
Average # Effective Parties	3.67	4.50	3.71	3.96

Source: author's calculations from electoral data <http://www.elecciones.gov.cl>

Thus, although the system is clearly conducive to less polarization and fragmentation than more permissive proportional representation arrangements, the system does not produce strong incentives for parties to seek the median voter. It is sufficient to secure 1/3 of the vote to obtain 50% of the seats. Thus, there are significantly lesser incentives for moderation in the binomial system than there would be with a majoritarian system.

B) Insurance Mechanism Against an Electoral Defeat

In general, PR systems are intended to give representation to parties other than the largest party in every district. For that reason, PR systems assign several seats to each district, to make it possible for smaller parties to gain representation. The larger the magnitude of the district, the more likely smaller parties can get parliamentary representation. To prevent excessive party fragmentation, minimum thresholds are often established for parties to clinch the first seat. When the district magnitude is 2, the provisions in place to give representation to parties that have minority support are unique. There is only one seat allocated for minority parties in every district. Thus, the same number of seats allocated for the party with most support in every district is allocated for minority parties. That arrangement has the obvious consequence that the first and second most supported parties will end up having equal representation in every district. In fact, assuming the use of the d'Hondt seat allocation formula, under the system any party with $1/3 + 1$ of the votes secures one of the two seats. With roughly one-third of the vote, a party can secure 50% of the representation.

A simple formula can help us understand the rationale used by electoral designers when choosing the most appropriate district magnitude. This is for all cases where the designer roughly knows the electoral support for her party. I assume the electoral designers do not know how many opposition parties will compete or the exact electoral support for each one. Yet, having good, reliable knowledge of her own electoral support and making broad assumptions about the number of other parties allows the designer to find a DM that will maximize how those votes transform into seats. The designer knows that all the support not received by her party will be distributed among other parties. Some of those will be opposition parties and some might be friendly parties. But because parties can broker agreements, electoral alliances, fusions and mergers, the designer only takes into consideration the support for her own party and assumes that all other voters will support a single opposition party. That assumption can also be relaxed later on, but the safest bet (risk

averse) for the designer is *to maximize how her votes will buy seats in parliament* assuming that all the opposition votes will be unified. In that sense, the designer adopts a maximin strategy.⁸

True, the support for one's own party might also be subjected to variables that might decrease it or increase it in the future. Voters are not captive audiences. They change their preferences over time. For that reason, the shorter the time span between the time the designer learns her level of support among the electorate, chooses the electoral rules and the first election is held, the more likely the designer will be able to make better use of her electoral design monopoly. The *electoral designer* chooses a district magnitude (DM) such that:

$$DM = \text{Round Down } [100 / V]^9$$

Where V is the percentage of votes expected for the designers' party in the election. The result of the division needs to be rounded down to the integer without decimals (because district magnitude can only be expressed in whole numbers). Figure 3 shows a graphic depiction of the rationale that informs an electoral designer that knows fairly well the electoral support for her party but does not know how many other parties will be competing and their electoral support. When the electoral support for the designer's party is small, the designer has incentives to create very large districts. The larger the district, the more likely the designer's party is to clinch a seat. As the support for the designer's party increases, the designer has incentives to reduce the district magnitude. This makes sense when we think of a designer party that commands an electoral support safely over 50%. If the designer chooses a majoritarian system, the designer's party will win most, if not all, seats.¹⁰

The extreme cases are mostly trivial. The interesting cases are those when the designer knows that her party commands significant electoral support but that support is less than 50%. That rules out SMD as the electoral formula of choice.¹¹ The calculations over what electoral formula is most efficient in maximizing the number of seats that the designer can clinch with her electoral support become very important when the designer has strong

⁸ As defined by the Merriam Webster's dictionary, Maximin is "the largest of a set of minimum possible gains each of which occurs in the least advantageous outcome of a strategy followed by a participant in a situation governed by the theory of games."

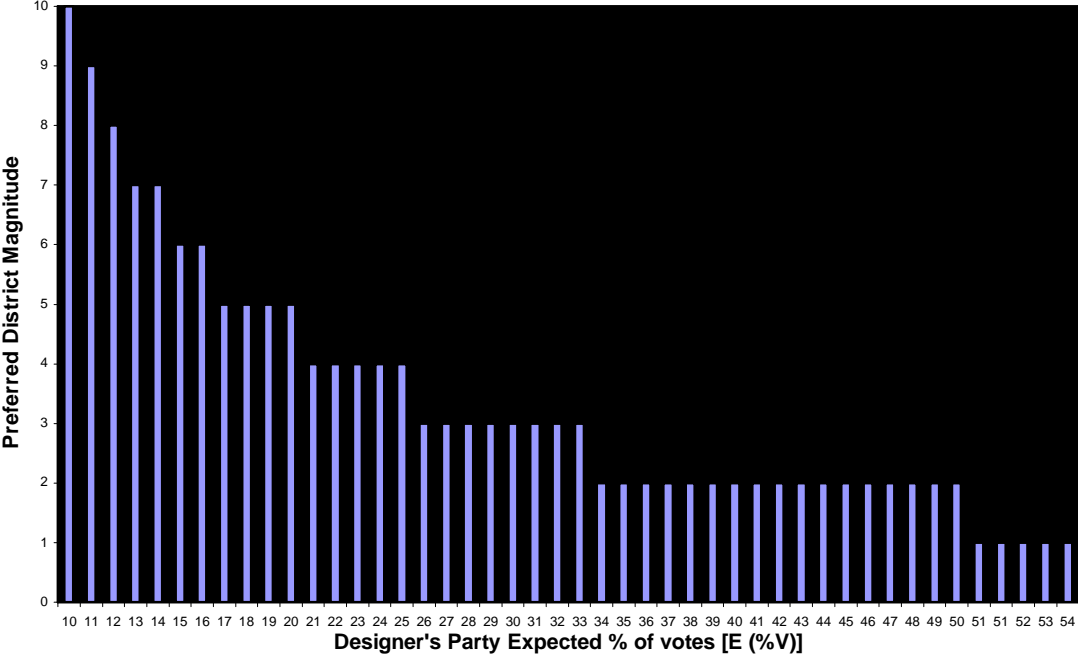
⁹ An error term may be included in the formula to account for the possibilities of ties. For example, without ϵ , if the *designer* expects to get 1/4 of the vote and all the remaining votes go to a single opposition party, the distribution of votes would be 75%-25% and the last seat would be a toss-up between the *designer's* party and the opposition. With a positive value of ϵ , the *designer* will prefer $M=3$.

¹⁰ True, the designer is also concerned about legitimacy and constrained by the need to give the opposition a chance of winning some seats in parliament. For that reason, the designer, even when knowing that she commands majority support, may choose to adopt a proportional representation system that will give additional incentives to the opposition to participate. The inverse is not true, if the designer knows that her party is in the minority, the designer will not select SMD.

¹¹ True, it might be that with a divided opposition the electoral designer's party still commands majority support, but in choosing $DM = 1$, the electoral designer will create incentives for the opposition to form a coalition. Risk-averse electoral designers who know their level of electoral support to be below 50% will likely stay away from SMD.

support but falls short of being an outright majority. Figure 3 is a depiction of the formula stated above. It assumes, for simplicity purposes, that there will only be one opposition party. When the electoral designer believes that there will be more than one opposition party, other considerations come into play, such as what percentage of the electoral support not captured by the designer’s party will each one of the opposition parties get and, ultimately, how many opposition parties will compete. But following a maximin strategy—assuming that all the votes her party does not get will go to a single opposition party—the designer can identify the most convenient DM given the level of electoral support for her party.

Figure 3. District Magnitude that Maximizes Electoral Support into Seat Share for the Designer's Party
 (Assuming d'Hondt electoral allocation rules and assuming that all remaining votes go to a single opposition party)



The formula shown above (depicted in Figure 3) seeks to maximize the number of seats that the electoral designer can buy in parliament assuming her electoral support and that of the single opposition party to remain constant.¹² If the *electoral designer* is expected to obtain 21% of the vote, the above equation predicts a value slightly higher than 4.7. Thus, the *designer* will choose a district magnitude of four (4). In that manner, the *designer* would be guaranteed at least one (1) seat in that district: with 21% of the vote, the designer will be able to buy at least 25% of the seats. This is so regardless of how many other parties and candidates compete and regardless of the electoral preferences of the rest of the population. The worst possible outcome for the designer’s party is that it will get 25% of the seats with 21% of the vote. Divisions among the opposition might actually increase the

¹² For simplicity purposes, I am assuming the same electoral preferences across all possible districts.

share of seats for the designer's party, but the worst it can do with 21% of the votes is to get 25% of the seats given a DM of 4.

With the formula discussed above, the *designer* can maximize the number of seats her party can obtain in any given district given her electoral weight (% votes). In Chile, the preferred M was two (2). This indicates that the *designers* expected to obtain a minority of the vote in the first election (and presumably thereafter) but also expected his party to obtain more than 1/3 of the vote. If the *designer* expected to obtain less than 1/3 of the vote, he would have not chosen an M=2. Instead, he would have settled for a larger M.

The logic that informs the designer can be understood as an insurance mechanism. If the designer is not as certain about the electoral support for her party, she might want a district magnitude that would make it very difficult for any party to easily win control of a majority of seats in every district. Simply put, if the designer does not know who is going to win, she might reasonably stay away from choosing a district magnitude that will result in a win-or-lose-all game. Single member districts represent an extreme example of that trade off: you either win 100% of the seats or lose 100% of the seats. PR arrangements mediate the win-or-lose-all game for the designer's party. When there are many seats, you can still win some seats even if you get fewer votes than the opposition. But, in choosing PR, the designer still gave the opposition a chance to carry an overwhelming majority of seats in case it obtained an overwhelming majority of votes. Yet, the idea is not simply to win some votes, but to have enough seats to make you a player in parliament. Because your party needs enough votes to block legislation or to prevent constitutional changes that require super-majorities, there is a critical threshold in the number of seats that will make your party's congressional representation a player in parliament.

By choosing a DM=2, the designer makes it very difficult for any single party to unilaterally secure a majority control of the elected seats in each district. As Figure 4 and Table 9 show, when DM=2, a party needs to obtain 2/3 + 1 of the vote to secure both seats in that district regardless of what everyone else does. If there is more than 1 opposition party, the threshold goes down, as the opposition vote will be split among different parties. When the number of opposition parties and the distribution of preferences among them is unknown (or one assumes that there will be only one opposition party), a formula can be derived to identify the threshold required by the majority party to win a commanding control of the seats in one district regardless of what other parties do. If the designer expects his party to be the minority party, the formula that, assuming d'Hondt, will give the majority party a commanding majority of the seats in every district is:

$$\% \text{ Votes} < (100DM + 2) / (2DM + 2) \text{ when } DM \text{ is even and } < 50\% \text{ when } DM \text{ is odd}^{13}$$

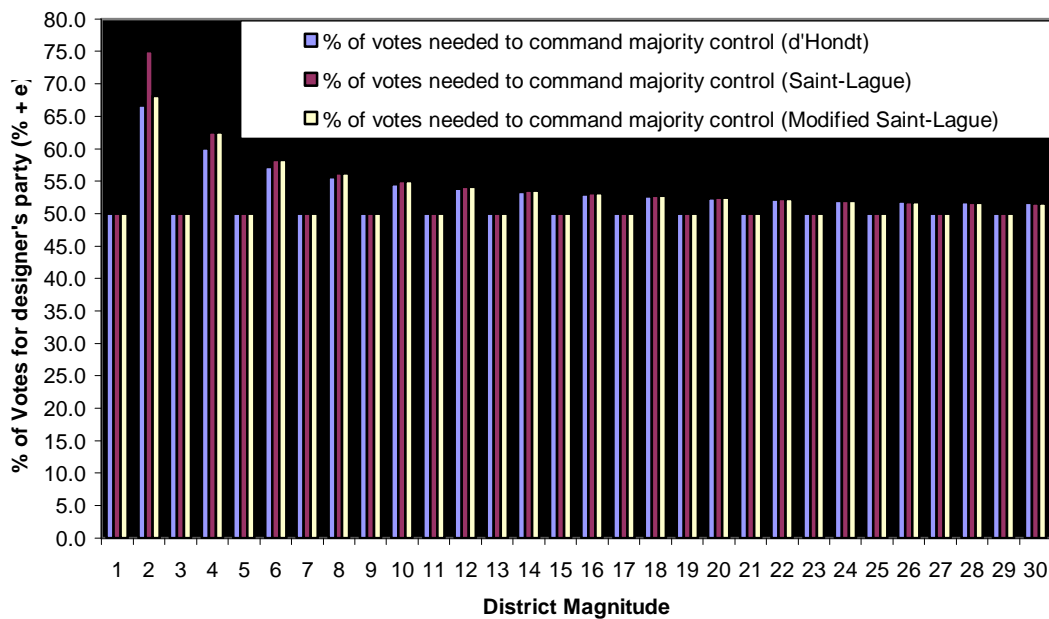
When DM (district magnitude) is odd, a party that obtains more than half of the votes will guarantee more than half of the seats in that district regardless of how many other parties

¹³ By rounding up DM/2 we can bring the DM to next integer, thus if DM/2 =3.5, we round it up to 4. For example, in a district with DM=7, 4 is the majority.

compete and how the remaining votes are split. Figure 4 shows the resulting values for DM varying from 1 to 30.¹⁴ When the number of seats is even, the threshold for majority control will decrease as DM increases. The highest threshold therefore exists when DM=2. A party must obtain $\frac{2}{3} + 1$ of the vote to secure both seats—which is the only way to have majority control in that district—and not worry about what everyone else is doing. Again, if the opposition vote is split between 2 parties or more, the threshold goes down.¹⁵

By choosing DM=2, the electoral designer made it more difficult for any single party to achieve majority control of the seats in every district. The binomial system seems to have been designed as an insurance mechanism against majorities. A DM of 2 makes more difficult than any other district magnitude under D'Hondt—or Saint Laguë or Modified Saint-Laguë for that matter—for any party to unilaterally pass the threshold that will guarantee it a majority control of the seats in every district.

Figure 4. % of Votes Needed to Command Majority Control of Seats in Every District
(assuming any distribution of votes among opposition parties)



¹⁴ Again, assuming a d'Hondt electoral allocation formula. Under Saint-Laguë, as Figure 4 shows, the threshold is 68.2% for DM=2. Given that the Saint-Laguë divisors are 1, 3, 5, 7., etc, that value is calculated with the following formula, find an X such that: $(3) X = (100 - X)$ Given that in Modified Saint-Laguë divisors are 1.4, 3, 5, 7., etc, that value is calculated with the following formula, find an X such that: $X(3) = (100 - X)(1.4)$

¹⁵ The threshold when there is more than one opposition party can be easily calculated. Rather than using 100 in the numerator, one should use $(100 - S \%$ votes parties ranked 3rd or lower). Thus, the new formula becomes:

$$[(100 - S \%$$
 votes parties ranked 3rd or lower)(N) + 2] / (2N + 2)

Table 9. Votes and Seats Needed for Majority Control in a District

# of seats (DM)	# seats needed for majority control in district	% of seats needed for majority control in district	Threshold (quota) for first and every additional seats	% votes needed for majority control of seats in district	% votes needed for majority control of seats in district
			D'Hondt Allocation Rules		Saint Lague* Allocation Rules
(a)	(b)	(c)	(d)	(e)	(g)
1	1	100	50.00 + 1	50.0 + 1	50.0 + 1
2	2	100	33.33 + 1	66.7 + 1	68.2 + 1
3	2	66.67	25.00 + 1	50.0 + 1	50.0 + 1
4	3	75	20.00 + 1	60.0 + 1	62.5 + 1
5	3	60	16.67 + 1	50.0 + 1	50.0 + 1
6	4	66.67	14.29 + 1	57.1 + 1	58.3 + 1
7	4	57.1	12.50 + 1	50.0 + 1	50.0 + 1
8	5	62.5	11.11 + 1	55.6 + 1	56.3 + 1
9	5	55.6	10.00 + 1	50.0 + 1	50.0 + 1
10	6	60	9.09 + 1	54.6 + 1	55.0 + 1
11	6	54.5	8.33 + 1	50.0 + 1	50.0 + 1
12	7	58.3	7.69 + 1	53.9 + 1	54.2 + 1
13	7	53.8	7.14 + 1	50.0 + 1	50.0 + 1
14	8	57.1	6.67 + 1	53.3 + 1	53.6 + 1
15	8	53.3	6.25 + 1	50.0 + 1	50.0 + 1

Rather than promoting moderation and reducing party fragmentation, the binomial system can be best understood as an insurance against an electoral defeat. If a party receives a sufficiently large minority vote (about 1/3 under the d'Hondt seat allocation rules), the party can secure half of the seats in any given district. However, just as any insurance mechanism works, when a party receives an electoral majority, there is a high threshold to convert that majority into a commanding majority of seats. Thus, parties benefit more when they obtain a sufficiently large minority support that allows them to secure half of the seats in any given district. Conversely, parties benefit least when their electoral majority is not large enough to guarantee them a commanding majority of seats in any given district.

III. Why is the Binomial System Sticky in Chile?

Electoral systems are known to be sticky. Once they are adopted, it is difficult to change them. Not surprisingly, the electoral system in place in Chile has not been altered since it was adopted in 1989. Despite the stated intention on the part of the *Concertación* to modify it, the system has already survived four consecutive legislative elections without any alterations.

Although there are several obvious and apparent reasons why electoral systems are difficult to change at the national level, the micro level reasons why systems are sticky have not been widely explored. It is generally assumed that legislators who were elected under a given system will not readily agree to adopt changes that might hinder their possibilities of being re-elected. To be sure, that argument cannot be applied to situations where there are re-election restrictions. However, even in cases where there are no re-election restrictions, it is not automatically the case that all legislators (not even a majority of them) would not benefit from a change in the electoral rules. In Chile, despite including it on its electoral and government platform, the three consecutive *Concertación* governments have not succeeded in changing the electoral rules.

The 1980 Constitution requires different super-majority thresholds for different kinds of constitutional reforms. The highest threshold is a 2/3 majority in both chambers and presidential approval, but the thresholds applicable to the chapters that contain the electoral rules for the Senate only require a 3/5 majority in both chambers. The super majority threshold required to reform Organic Laws—including the Electoral Law (Law 18,700, *Ley Orgánica Constitucional sobre Votaciones Populares y Escrutinios*) is a 4/7 vote in both chambers. Thus, to make a constitutional change to reform the composition of the Senate, 69 votes are needed in the Chamber and 28 votes are needed in the Senate.

Since the restoration of democracy, the *Concertación* has never held a majority control of the Senate seats. Although the government coalition has successfully obtained a clear majority of votes in all elections, the distortional effects of the electoral system and the presence on non-elected senators has prevented the *Concertación* from transforming its electoral majority into a majority control in the Senate. Thus, for a constitutional amendment to be successful, the *Concertación* requires the support of a number of conservative senators. Currently (2002-2006), the *Concertación* has 19 seats among the 38 elected seats in the Senate. In addition, 4 of the 10 non-elected Senators are *Concertación* militants. The additional support of a Senator who was elected on the *Concertación* ticket but who was later expelled from one of the *Concertación* parties would bring the *Concertación* vote to 24 out of 48 members in the Senate. In order for a constitutional reform to pass, the *Concertación* would need 4 additional senate votes, whereas for a reform in the electoral law, 5 additional votes would be needed.

In the Chamber, the *Concertación* had a safe majority to push a constitutional reform for the composition of the Senate between 1990 and 1994 (72 seats). Between 1994 and 2002, the *Concertación* only had a large enough majority (70 seats) to unilaterally reform the organic law (69 votes needed). However, since 2002, the *Concertación* lost that supermajority control as it only managed to gain 62 seats in the 120-seat Chamber. Thus,

despite having the ability to unilaterally initiate a constitutional reform from the Chamber of Deputies, the *Concertación* opted against doing it during the 1990 to 1994 legislative session. In addition, the *Concertación* refrained from initiating a change to the Electoral Law (Organic Law 18700) from its commanding majority control of the Chamber.

The argument used against initiating a constitutional and/or an organic law reform from the Chamber was the need to get the Senate acquiescence before any real progress could be made. Despite efforts to negotiate with Senate opposition leaders in several occasions during the Aylwin (1990-1994) and Frei (1994-2000) administrations, no progress was made at the Senate level and the *Concertación* governments opted to refrain from using its safe majority in the Chamber to exert pressure on a seemingly uncompromising. In fact, all the efforts made to advance a constitutional reform have been initiated at the Senate level. Most recently, the Lagos administration sent a comprehensive reform package to the Senate in 2000. In November 2001, the Senate Commission on Constitution, Legislation, Justice and Rules produced a report with all the reforms that had been favorably voted in the commission. The Senate then voted favorably to legislate on the proposed reforms.¹⁶ But final Senate approval is pending. Although the Lagos government and the senate opposition leaders agreed on getting the reforms passed before the end of the 2004 legislative session, many doubt that agreements on several thorny constitutional issues will be reached. Among those thorny issues, the elimination of non-elected senators and the changes to the binomial electoral rules are the most challenging.

Yet, the Senate Commission broke new ground by reaching consensus on erasing from the constitutions the detailed provisions as to how the Senate will be elected. The Commission agreed to relocate the specific provisions for the composition of the Senate from the constitution to the organic law. Thus, effectively reducing the threshold from a 3/5 majority to a 4/7 majority for future changes to the electoral rules to be adopted. Although there was also unanimous agreement on eliminating the non-elected senators—but discrepancies on eliminating the life-time Senate seats for former presidents—the Commission did not agree on the total number of seats that should comprise the Senate (Comisión de Constitución 2001: 250-293).

The Commission's consensus is widely expected to be passed in both Chambers, but debate over the total number of seats the Senate should have remains a controversial issue. While conservative Senators advocate for a smaller 38-member chamber representing 19 2-seat districts (the same that are currently democratically elected), *Concertación* senators have advocated for an increase in the total number of Senators to 50. New Senate seats would be filled either by increasing the district magnitude in some districts or by creating new 2-seat or multi-seat districts. Although it is difficult to anticipate the fate of this new constitutional reform effort, one observation is relevant for the question of why is it that electoral systems are so difficult to change.

The debate on the composition of the Senate has overshadowed the debate over the composition of the Chamber of Deputies. Partly because the *Concertación* has successfully transformed its electoral majority into a commanding majority of seats in that chamber, but

¹⁶ For a description of the different steps in the legislative process, see Aninat et al., 2004.

also because the elimination of non-elected senate seats forces a decision on the total number of Senators that will comprise the upper chamber, the debate has centered on how, or whether, the non-elected Senators will be replaced. Because the elimination of non-elected Senators will produce the possibility of appointing new democratically elected Senators, the government has the opportunity to negotiate a reform that will diminish the distortional effect of the binominal system—by increasing the district magnitude in some districts, or creating more 2-seat senatorial districts to make it easier for a coalition to transform its electoral majority into a commanding majority of seats—without radically altering the existing senatorial districts that allowed Senators to gain their seats in the first place.

If that logic proves successful, then the government might well apply it to the Chamber of Deputies too. By proposing an increase in the total number of deputies elected, the government can make easier for sitting deputies to agree to an electoral reform that reduces the distortional effect of the binominal system without threatening to alter the electoral base on which they were recently elected. The government will likely find it easier to convince legislators to agree to modify the binomial system—and effectively renounce to its insurance-against-an-electoral-loss provisions—if the reforms increase the total number of seats elected and thus improve their individual chances of retaining their elected seats.

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