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Where's the bias? A reassessment of the Chilean electoral system

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Abstract

This paper presents exploratory data analysis of Chilean electoral results from 1989 to 2001 to show that contrary to the conventional wisdom, the 'binominal' electoral system does not benefit the second largest coalition. Rather, it benefits the two largest coalitions at the expense of the smaller lists, as is the case in almost all electoral systems. Previous analyses have erred by extrapolating predictions that are correct at the district level into the aggregate multidistrict setting without accounting for the fact that there is considerable variation on how well lists perform across different districts. Using simulations I show that the variation of vote shares across districts is, in fact, the driving force behind this result.
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1. Introduction

Chilean political institutions are one of the best real world examples of deliberate and controlled institutional design. For this reason, Chile is sometimes regarded as the proof that it is possible to design institutions that suit one's need and that are also resilient enough to survive substantial changes in other background conditions. The distinguishing feature of the Chilean democratic transition is that is was totally 'contained' by the institutions of the previous regime (Valenzuela and Siavelis, 1991, p. 29). The set of political institutions that were handed over by Pinochet's regime were designed both 'to protect the economic

legacy' of his government and 'to prevent the reemergence of the dynamic of polarization and instability that characterized the early 70s' (Siavelis, 1993, p. 1).

One of the most peculiar aspects of Chilean political institutions is the binominal electoral system. It has become a widely accepted stylized fact that the Chilean electoral system favors the coalition that finishes second while hurting the coalition that obtains the first place in popular vote. Since the right wing coalition has finished second and the center-left coalition has finished first in all four legislative elections of the post-Pinochet area, this distortion can be called a 'pro-right' bias.

The goals of this paper are twofold. First, data is presented in support of the view that the alleged pro-right bias does not exist, or at least not in the way it is described in the literature. Second, and foremost, it presents an explanation as to why the Chilean electoral

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systems fails to produce the expected effects even though there exists a plausible mechanism for which there is ample support in the literature.

The paper proceeds as follows. The next section outlines the main features of the binominal system, and what I regard as the conventional wisdom about present in the literature. The subsequent section presents electoral data to support the claim that the conventional wisdom finds no empirical support with respect to the mechanical effects of the Chilean electoral system. In Section 3, I present and elaborate on the argument that variation in vote shares across districts is the forgotten link in the argument, and accounts for the difference between the expected and actual aggregate electoral results. A brief conclusion follows.

2. The conventional wisdom

2.1. The binominal system

Until recently, Chile had two different systems for defining the composition of its legislative branch. Nine of its Senators were appointed through a variety of non-electoral mechanisms for eight years terms. These Senators were dubbed *designados* or *institucionales*, and constituted the most visible constitutional legacy of the authoritarian regime. These method of selecting legislators has recently been abolished, and the present paper focuses on the electoral system proper, by which the remaining Senators, as well as all the members of the Lower Chamber, are elected.

Chile elects its 120-member *Cámara de Diputados* in 60 two-member districts. The 36 elected Senators are similarly elected in 18 two-member circumscriptions.[1] The uniform magnitude of 2 ($M = 2$) in all districts gives the system its name — binominal — and also its most distinguished implications, which are discussed in the following sections.

Parties and independent candidates can set up their own lists or join in pacts with other parties. Any list, however, can run only a maximum of two candidates per district.[2] Candidates are elected in

an open list system, by which voters cast their vote for the candidate but the votes are pooled by list. The Chilean law explicitly stipulates that if a list obtains more than twice the number of votes of the runner up list it elects two candidates, otherwise the top two vote receiving lists elect one candidate each.[3] This method corresponds to electing the candidates by proportional representation, allocating the seats in each district to the lists using the d'Hondt formula. Furthermore, if a list wins only one seat, the candidate within that list that received the most votes is elected.

It has long been pointed out that most electoral systems allocate a disproportional number of seats to the larger parties (Rae, 1967). It also widely known that in proportional systems smaller magnitudes are associated with a more disproportional distribution of seats relative to votes and that among all PR seat allocation formulas d'Hondt is the one that gives a greater advantage to the larger parties (Rae, 1967; Taagepera and Shugart, 1989; Lijphart, 1999). It would then come as no surprise that one of the most widespread criticisms of the binominal system is that it skews the distribution of seats. However, as I will shortly discuss, the *alleged* effects of the binominal system go beyond the usual favoring of largest parties that is reported by the classical works on electoral systems.

2.2. The origins of the binominal system

Chile was a democracy for most of the 20th century. Prior to the 1973 coup, Chile elected its legislature by proportional system with 28 districts and magnitudes that ranged from 1 to 18. The binominal system is an institutional novelty specific to the current democratic period that began in Chile in 1989.

The reasons that led to the adoption of such system have been scrutinized by many scholars. It was allegedly crafted to benefit the parties on the right (Siavelis, 1997; Scully, 1997), to rearrange electoral preferences by forcing a reduction in the number of parties (Siavelis, 1997), and to induce moderation and stability by consolidating the center of the political spectrum (Guzman, 1993; Rabkin, 1996; Magar et al., 1998). The literature offers mixed assessments of the binominal system's track record in achieving the latter

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[1] Later in the paper I refer to both circumscripciones and distritos as districts.

[2] This limitation gives rise to important intra coalition dynamics that can be regarded as "psychological" effects of the electoral system (Duverger, 1959), for they have to do with strategic anticipation of the system's mechanical effects. In this paper I focus exclusively on the mechanical effects of the Chilean electoral system. For an interesting analysis of the effect the binominal system in helping Concertación overcome internal disputes, see Carey and Siavelis (2005).

[3] Ley Constitucional Organica n.18700, Article 109 bis.

two goals.[4] However, there seems to be a broad agreement that the binominal system was a success in favoring the authoritarian regime's political heirs — the right of the political spectrum (Siavelis, 2001; Siavelis, 1997; Scully, 1997; Fuentes, 1993; Valenzuela and Siavelis, 1991).

Navia (2002), questions part of this established wisdom. While he agrees that the Pinochet regime deliberately chose a set of rules that would further his future political interests, he also calls attention to the constraints limiting his ability to chose these rules, to the unintended consequences that did not benefit the designer, and to the fact that Pinochet's crew overlooked a series of options available to them that could have helped them better distort electoral preferences in their favor. On the issue of district magnitude, Navia's main argument is that rather than crafting a system that benefited the second largest coalition, Pinochet sought to minimize the cost of an electoral defeat. This is certainly a departure from most of the previous literature, and for that reason I will return to this Navia's claim further along this paper.

2.3. Expected effects of the binominal system

The binominal system has been in use in Chile since its return to democracy in the late 80's. During this time, Chilean party politics has been remarkably stable, especially in comparison with many other Latin American countries. Four legislative elections (1989, 1993, 1997 and 2001) and three presidential elections (1989, 1993, 1999) were held in the period and two broad

and stable pre-electoral party alliances have dominated Chilean politics in all of them.

On the eve of democratization the anti-Pinochet segments of Chilean politics coalesced into the center-left *Concertación de Partidos por la Democracia*, which campaigned vigorously to win the 1988 plebiscite that forced Pinochet to step down from office. While its has experienced some changes in its composition, the centrist Christian Democrats (PDC) and the left of center Socialists (PS) have been the anchors of coalition. *Concertación* has remained the most important force, winning all three presidential elections and the majority of elected[5] seats in Congress in every opportunity.

The major right-wing parties have also competed electoraly as a stable block, even though the coalition ran under different names in each election.[6] Still, in all elections the *Unión Demócrata Independiente* (UDI) and the *Renovación Nacional* (RN) have been the coalition's core. In this paper, I refer to this block as *Alianza*, or simply the 'right'. The UDI and the RN incorporated Pinochet's political heirs as well as new more 'democratic' conservative elements. Although less electoraly successful, *Alianza* has been systematically closing the gap relative to *Concertación*, with the last election showing an almost 50-50 split in the electorate.

The literature on the subject shows a very coherent interpretation of the effects of Chilean electoral institutions on its most important competitors. In this respect, Siavelis points out that 'while not garnering a majority, the parties of the center-right benefited by receiving a disproportionate number of legislative seats when compared with the proportionality indices of the parties of the *Concertación* Alliance' (Siavelis, 1997, p. 344), and in another article concludes that 'it is hard not to admit that the system's designers succeeded in overrepresenting the right' (Siavelis, 1999, p. 226). In the context of an electorate that has historically been clustered in three distinct ideological sectors (left, center and right) with roughly a third of the voters in each, Fuentes argues that the 'binominal system tends to hurt severely the first *tercio* (third) and to favor significantly the second most popular *tercio*', while excluding

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[4] On the goal of rearranging of the party system, Scully argues that 'it is unlikely that a new cleavage has emerged with sufficient force to reorganize the basic contours of Chilean political landscape (...) which represents a major source of continuity underlying the dynamics of party competition' (Scully, 1997, p. 122). Valenzulea and Siavelis (1991) point out that underneath the apparent two block competition pattern, the multiparty nature of the Chilean electorate persists. With concurrent remarks, Fuentes (1993) argues that the traditional 'three cluster' structure of the Chilean electorate persists even after the binominal system was introduced. With regards to strengthening the center and inducing moderation, Scully pointed out that despite the proliferation of party labels, the center has now occupied a relevant coalition making position (Scully, 1997, p. 136) and Guzman claimed that the binominal system induces coalitions and pushes the parties to position of the median position (Guzman and AuthorAnonymous, 1993, p. 307). Magar et al. (1998) contest this idea with a spatial model that shows that the equilibrium strategy for the candidates on each major coalition is to cluster away form the median voter. Thus, there is no centripetal incentive in the Chilean Double-Member district.

[5] Note that since not all members of the Senate were elected, this does not mean that Concertación has always had a majority in the Senate.

[6] The names of the right-wing coalition were Democracia y Progreso in 1989, Unión por el Progreso de Chile in 1993, Union por Chile in 1997 and Alianza por Chile in 2001.

and

$$Var(Y) = \frac{\alpha(\alpha+1)}{(\alpha+\beta)(\alpha+\beta+1)} - E(Y)^2 \qquad (2)$$

Eq. (1) was re-written to obtain β as a function of α and $E(Y)$

$$\beta = \frac{\alpha[1-E(Y)]}{E(Y)} \qquad (3)$$

then substituted into Eq. (2) and equated to zero. This yielded

$$\frac{\alpha(\alpha+1)}{\left(\alpha + \frac{\alpha[1-E(Y)]}{E(Y)}\right)\left(\alpha + \frac{\alpha[1-E(Y)]}{E(Y)} + 1\right)} - E(Y)^2 - Var(Y) = 0 \qquad (4)$$

The distribution from which the draws were made was defined by solving Eq. (4) for α and then computing β.

The simulations presented in Tables 3 and 4 follow the same logic. All simulations were performed in R, and the code is available upon request.

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