### Setting the Rules of the Game: The Choice of Electoral Systems in Advanced Democracies Carles Boix

The American Political Science Review, Vol. 93, No. 3 (Sep., 1999), 609-624.

Stable URL:

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# Setting the Rules of the Game: The Choice of Electoral Systems in Advanced Democracies

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ooking at the history of democracies in the developed world, I show that electoral systems derive from the decisions the ruling parties make to maximize their representation according to the following conditions. As long as the electoral arena does not change and the current electoral regime benefits the ruling parties, the electoral system is not altered. As the electoral arena changes (due to the entry of new voters or a change in voters' preferences), the ruling parties modify the electoral system, depending on the emergence of new parties and the coordinating capacities of the old parties. When the new parties are strong, the old parties shift from plurality/majority to proportional representation if no old party enjoys a dominant position, but they do not do this if there is a dominant old party. When new entrants are weak, a system of nonproportional representation is maintained, regardless of the structure of the old party system.

**¬** he literature on the interaction between electoral rules and the performance of the political system is imbalanced. Political scientists have focused on determining the effects of electoral laws on both political stability (Hermens 1941; Lijphart 1994) and voting behavior and party systems (Duverger 1954; Rae 1971; Taagapera and Shugart 1989). By contrast, little effort has been devoted to what causes the high degree of cross-national variation in electoral laws, with the exception of two seminal (yet still theoretically underdeveloped) contributions by Rokkan (1970) and Rogowski (1987). To fill the gap, this article maps the conditions under which the ruling parties, anticipating the effects of different electoral regimes on voters and candidates, choose different sets of electoral rules to maximize their chances of securing parliamentary representation as well as cabinet posts.

Electoral rules are formal institutions that encourage the strategic behavior of both elites and voters and hence force their coordination around a set of viable candidates. To avoid wasting their ballot on hopeless candidates, voters may choose politicians who are ranked second or lower in their preference ordering. Similarly, elites tend to pay attention to and concentrate resources on candidates who are expected to win. The extent of strategic behavior among voters and elites varies with the constraining effects of electoral rules. Generally speaking, the higher the entry barrier (or threshold) set by the electoral law, the more extensive strategic behavior will be.

Anticipating the coordinating consequences of elec-

toral rules, any current government (provided it has the monopoly over electoral rulemaking) shapes the electoral rules to its advantage. Two results follow. As long as the electoral situation does not change substantially and the current rules serve the ruling parties well, the government has no incentives to modify the electoral regime. As soon as the electoral arena changes, however, the government considers altering the electoral system. If it calculates that the strategic behavior of voters will not upset its dominant position, it will maintain (or introduce) high entry barriers (i.e., a plurality rule). On the contrary, if it foresees that, by inducing any strategic behavior (among voters and elites), the current rules will erode its parliamentary power substantially, it will change them (lowering thresholds or entry barriers) to increase the degree of proportionality.

As shown in this article, these sets of calculations explain the development of electoral systems in the developed world since the turn of the century. The electoral system (structured around plurality or majority rules) remained unchanged during the era of limited suffrage. As soon as universal suffrage was adopted, which led to the massive entry of mostly left-wing voters and, hence, to a radically new electoral arena, the ruling elites followed different solutions. The plurality/majority system survived under two circumstances. First, it remained in place in those countries in which the new entrant (a socialist party) was weak and, itself the victim of strategic voting, could not challenge any of the established parties. Second, it was maintained in those countries in which, although the new entrant became strong, one of the established or nonsocialist parties retained a dominant position in the nonsocialist camp. Since it could easily attract the strategic vote of all nonsocialist voters (mostly worried about blocking the victory of social democracy), the dominant party acted rationally in maintaining a highly constraining electoral rule. By contrast, proportional representation was adopted in those countries in which the socialist party was strong and nonsocialist parties controlled roughly similar shares of the electorate. Failure to reduce the electoral threshold would have led to an overwhelming victory of the socialist party. As soon as the electoral arena became stable and the party

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This research was supported by grants from the Centre de Recerca en Economia Internacional (Universitat Pompeu Fabra, Barcelona) and The Ohio State University. For helpful comments, I am grateful to Alícia Adserà, John Carey, Stathis Kalyvas, Herbert Kitschelt, Bill Liddle, José María Maravall, José Ramón Montero, Guillermo O'Donnell, Ronald Rogowski, Ignacio Sánchez-Cuenca, David Soskice, Susan Stokes, seminar participants at the 1997 annual meeting of the American Political Science Association, Fundación Juan March, Universitat Autònoma de Barcelona and University of Chicago, and several anonymous reviewers.

<sup>1</sup> For a review of previous attempts to determine the causal mechanisms of the origins of electoral rules, see Lijphart (1985, 1992) and, to some extent, Cox (1997, 15–6).

system froze along certain cleavages, policymakers lost interest in modifying the electoral regime. Abrupt changes in electoral laws have been rare in the last eight decades, with the exception of those nations in which party systems have remained unsettled.

In addition to shedding light on the strategic calculations of political elites, this article tests the validity of several competing explanations. A high degree of ethnic or religious fragmentation is shown to encourage, under certain conditions, the adoption of proportional representation. The claim that states choose proportional representation to maximize social welfare, because it generates efficiency gains by preventing rent-seeking and securing free trade, is found to be unconvincing.

### A THEORY OF THE SELECTION OF ELECTORAL SYSTEMS

#### The Rokkan Hypothesis

In his discussion of the adoption of proportional representation (PR) in European countries at the turn of the century, Rokkan offers a first interpretation of the causal forces that determine the selection of different electoral regimes. PR rules were introduced "through a convergence of pressures from below and from above. The rising working class wanted to gain access to the legislatures, and the most threatened of the old-established parties demanded PR to protect their position against the new waves of mobilized voters created by universal suffrage" (Rokkan 1970, -157).<sup>2</sup>

Although Rokkan rightly points to the key role played in the design of electoral rules by the calculations that political elites make about their future electoral strength, his argument is underspecified. Other than stating that political elites adopt PR to protect their political stakes, he does not indicate the conditions under which policymakers will feel sufficiently threatened to change the current electoral system. As a result, Rokkan's hypothesis runs into several problems. First, if PR is adopted to lessen the chances that an increasingly stronger socialist party may win an absolute parliamentary majority, then why did Great Britain (as well as Australia and New Zealand) embrace universal suffrage without shifting to PR (as did Sweden and Denmark)?<sup>3</sup> Second, if electoral rules were changed as a result of the extension of universal suffrage in the late nineteenth and early twentieth century, then why have certain countries (France, Greece, and to some extent Spain) shifted back and forth between plurality (or majority) rule and PR systems over the last century? Third, and more

generally, Rokkan's explanation is too historically bounded. The rise of socialism and the corresponding calculations of conservative elites did affect the form that electoral rules took under fully democratic regimes. Still, we need a more encompassing theory to explain the selection of electoral rules in Eastern Europe, Latin America, and the newly democratizing countries today.<sup>4</sup>

### An Analytical Generalization of the Rokkan Hypothesis

To understand why the ruling parties shifted (or not) to PR at the turn of the century in the developed world, I proceed to develop an argument organized around three sequential steps.

1. The consequences of electoral rules. These rules are constraining devices that, by encouraging strategic behavior among voters and elites, force the coordination of resources and ballots on a reduced set of candidates. Instrumentally rational voters eschew voting for candidates they expect to do poorly in the next election, even if this means supporting second-ranked candidates in their preference orderings. Similarly, political elites avoid wasting their time and resources on hopeless candidates. As a result of these two processes, and as long as everyone agrees on each candidate's probability of winning, votes and resources flow to "stronger" candidates. In equilibrium, through either the instantaneous coordination of all political actors or the winnowing out of "weak" candidates over repeated elections, only a certain number of viable candidates compete at the ballot box.

The extent of strategic behavior, as well as the number of candidates willing and able to stand in elections, varies with the electoral rule in place. In single-member plurality systems voters coordinate, given a set of conditions discussed in detail below (when I define the mechanisms that lead to the choice of the electoral law), around two candidates (Cox 1997, 69–79; Duverger 1954, 217). Strategic voting declines, however, as the proportionality of the electoral system increases. Because seats can be gained with only a fraction of the total vote, voters have fewer incentives to abandon their most preferred candidates. Accordingly, the number of viable candidates increases with PR.<sup>5</sup>

<sup>&</sup>lt;sup>2</sup> According to Lijphart (1992, 208-9), the extension of universal suffrage forced both the ruling elites and their challengers to introduce PR "to protect their [respective] interests"; the former tried to minimize their (predictable) losses and the latter wished to "guarantee that they would gain at least a substantial share of representation and political power."

<sup>&</sup>lt;sup>3</sup> A similar point is made by Lijphart (1992, 209).

<sup>&</sup>lt;sup>4</sup> To explain the constitutional choices (primarily regarding the electoral system) made in Czechoslovakia, Hungary, and Poland, Lijphart (1992) refines Rokkan's hypothesis by adding three factors: (1) the degree to which "the 'old-established parties' [are] retaining sufficient power and legitimacy to negotiate a relatively favorable compromise" (p. 213); (2) the expectations that ruling parties have about their future electoral chances; and (3) the extent to which voters distrust party lists and would rather vote for candidates. It is unclear how Lijphart's first and third conditions can apply to the adoption of PR in either Europe at the beginning of this century or non-European nations in general. The second condition comes closer to the model developed below, but it does not specify what structured the politicians' expectations and how those expectations led to the selection of different electoral systems.

<sup>&</sup>lt;sup>5</sup> Cox (1997, 103–21) provides empirical evidence that strategic voting diminishes substantially in large (four or more seats) districts.

2. The calculations of rulers and the stability of the electoral arena. Since electoral laws are determined by policymakers, we should expect that the ruling political parties, anticipating the (varying) effects of different electoral regimes, choose the regime that maximizes their chances of staying in power.<sup>6</sup> Two points follow. As long as the electoral arena does not change substantially and the electoral rules serve them well, the governing parties have no incentives to change the electoral system.<sup>7</sup> As soon as change takes place and the previous structure of partisan competition starts to unravel, the ruling parties consider modifying the electoral system to maintain their political advantage.

Electoral systems were relatively stable throughout the nineteenth century. With the introduction of universal suffrage at the turn of the century, the conditions under which political competition had developed changed dramatically in the developed world. In a short period, the size of the electorate increased several times. In countries such as Belgium, Sweden, and Italy, it rose from about one-tenth of the male population at the end of the nineteenth century to universal male suffrage after World War I. Even in countries in which universal or nearly universal suffrage had been introduced earlier, such as Denmark, France, and Norway, urbanization and industrialization led to a substantial political realignment, that is, to a shift from a rural-urban conflict to a deepening capital-labor cleavage. The massive entry of new voters as well as a transformation in the preferences of already enfranchised citizens threatened the electoral strength of the old parties substantially. Accordingly, the old parties' elites had a strong incentive to reshape the electoral rules of the game.8

3. The reform of the electoral system as a function of the viability of the old party system. The shift to PR is not an automatic response to a changing electoral arena. The extent to which the ruling parties embrace PR depends on the interaction of two main conditions, which determine the electoral viability of the ruling parties in the future. First, the strength of the new entering parties (the socialist party at the turn of the century); second, the coordinating capacity of the

<sup>6</sup> Throughout this article I assume that the parties in government (i.e., those with a parliamentary majority) have a monopoly over electoral norms. As should become apparent from the discussion below, if changing electoral norms require a supramajority, the incentives to adopt PR are likely to increase.

ruling parties, that is, whether they are tied in votes (which prevents coordination) or one party is dominant (and thus can become the focal point around which nonsocialist voters coordinate). If there are no new parties and/or one of the old parties leads in the nonsocialist camp, then a non-PR system will survive any changes in the electoral market (such as the introduction of universal suffrage). Yet, as soon as a new party draws substantial support and the ruling parties are tied in votes, the incentives to embrace PR become irresistible.

For this third step in the argument, there are two points of departure: the single-member plurality system and the single-member dual-ballot system. Before the adoption of universal suffrage, all elections were conducted under non-PR rules, mainly using the single-member plurality system but also applying the single-member dual-ballot systems in some countries. Employing the single-member plurality system as the benchmark case, I will examine first how the conditions specified above shaped the decisions of the governing party (parties) at the beginning of the twentieth century. I will then extend my discussion to the two-round system.

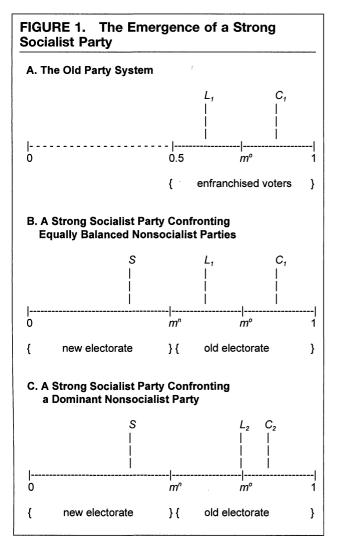
Consider, to start with, the situation in which the old parties face a strong new party. Two scenarios may develop. In the first, the old parties coexist in a non-Duvergerian equilibrium. Either their electoral strength is balanced, and hence voters cannot determine around which one they should coordinate to defeat the socialist party, or voters have such intense preferences that they deliberately eschew strategic voting.<sup>10</sup> Panels A and B in Figure 1 represent this situation. The electorate is uniformly distributed on a single policy dimension, from Left (0) to Right (1). Before the introduction of universal suffrage, only half the population has the right to vote—voters with preferences from 0.5 to 1. There are two parties, Liberal  $(L_1)$  and Conservative  $(C_1)$ , symmetrically positioned around the old median voter ( $m^o = 0.75$ ) at, say, 0.65 and 0.85, respectively, and thus they win 50% of the vote each (Figure 1A). After universal suffrage is introduced, the median voter is  $m^n = 0.5$ . The Socialist Party (S) enters the electoral process announcing a position  $0.35 + \varepsilon$  (Figure 1B). Under a single-member plurality system, this is enough to snatch the district from the Conservatives because voters, unable to determine which nonsocialist party has a better chance to defeat S, cannot coordinate on either  $L_1$  or  $C_1$ . Anticipating a crushing victory of S,

<sup>&</sup>lt;sup>7</sup> If two main parties are contending for government, then they will be satisfied with the current electoral arrangements as long as their chances of attaining power are even. The longer one of the parties stays out of office (i.e., its probability of winning declines below 0.5), the greater is the likelihood that it will press for electoral reform. This would explain the growing popularity of PR within British Labour by the late 1980s and early 1990s.

<sup>&</sup>lt;sup>8</sup> The introduction of universal suffrage is taken as given in this article, but the ruling parties could block any change in the electoral arena. Whether they choose to do so (a decision not modeled in this article) depends on how feasible it is to maintain the status quo. Whenever the ruling policymakers calculated that an authoritarian strategy was not rational (i.e., if it should lead to a bloody uprising or even civil war, then generating losses greater than full participation), their only solution lay in reshaping the rules of the game (including the electoral system) to maintain a certain political or institutional advantage.

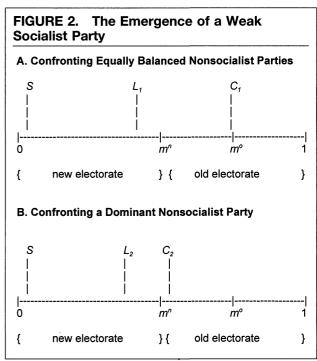
<sup>&</sup>lt;sup>9</sup> The single-member plurality system was in place in Australia, Canada, Denmark, Iceland, Ireland (before independence), Japan, New Zealand, Spain, Sweden, the United Kingdom, and the United States. Austria (1907–19), France, Germany, Italy, the Netherlands (in part), Norway (since 1905), and Switzerland had a single-member system with two rounds (three rounds in Switzerland until 1900). Belgium, Luxembourg, and the urban districts of the Netherlands operated under multimember districts and two rounds.

 $<sup>^{10}</sup>$  See Cox (1997, 76–80, 96–8) for the full set of (rather strict) assumptions under which a single-member plurality system leads to only two viable candidates. I focus on the conditions that shed light on the calculations the ruling parties make about which electoral rule should be adopted.



the old ruling parties introduce PR.<sup>11</sup> This was the case with the Danish and Swedish nonsocialist parties.<sup>12</sup>

Even if S is strong, the incentives to change the electoral system may remain low. In this second scenario, represented in panel C of Figure 1, one of the old ruling parties has a dominant position in the electoral arena. Whereas the Conservative Party  $(C_2)$ is still at 0.85, the Liberal Party  $(L_2)$  positions itself differently (0.75, that is, the old median voter,  $m^{o}$ ) from before. As a result,  $L_2$  has a dominant position under the old system, polling about 55% of the votes. Even if, after the whole electorate is enfranchised, S emerges and adopts a position equal to 0.35, which should lead to an easy victory under plurality rule, the incentives of  $L_2$  to shift to PR remain low. Since single-member plurality systems encourage strategic behavior,  $L_2$  rationally expects all former Conservative voters to coordinate around  $L_2$  to defeat S. Once  $C_2$ 



disappears,  $L_2$  can move toward the new median voter  $(m^n)$  to regain control of the parliament. Although in the reverse way, with the Tories the dominant force, this is what happened in Britain. After the Liberals split during World War I, the Conservative Party had no incentives to shift to PR to minimize the chances of a Labour victory.<sup>13</sup>

Consider also the case in which the new electors do not vote for new parties and, in the developed world at the turn of the century, socialist parties are weak. The ruling old parties have no incentives to abandon the plurality system, regardless of whether they are locked into a non-Duvergerian equilibrium. In Figure 2A,  $L_1$  and  $C_1$  have a roughly similar share of votes. In Figure 2B,  $C_2$  enjoys a dominant position. Yet, in neither case will voters desert either party to stop S. In fact, it is S that is most damaged by strategic voting. This pattern fits the cases of Canada and the United States. 14

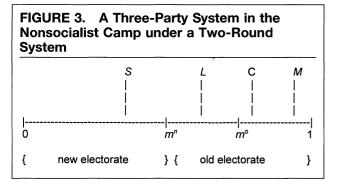
Now let us examine the single-member dual-ballot system as the point of departure. In a two-round system, in which the coordination around two candidates is postponed to the second ballot, the incentives

<sup>&</sup>lt;sup>11</sup> Moreover, since by shifting to PR they make easier the entry of any party to the left of S, they force S to slow any movement toward the median voter.

<sup>&</sup>lt;sup>12</sup> This situation also fits the case of several nations, such as Belgium and the Netherlands, in which nonsocialist coordination could not occur (even if one party dominated, as did the Belgian Catholic Party) in the face of intensely committed voters.

<sup>&</sup>lt;sup>13</sup> Labour made similar calculations once it became a dominant party in the left-hand side of the policy space. Until 1921 a majority of Labour MPs favored PR. By 1923–24, once Labour had solidified its lead over the Liberals in the polls, an overwhelming majority of Labour parliamentarians were against PR (Butler 1963).

<sup>&</sup>lt;sup>14</sup> The pace at which universal suffrage was extended also may have affected the selection of electoral rules. In those countries in which suffrage was extended incrementally over the nineteenth century, the old parties were likely to control most of the electoral arena by the time universal suffrage was introduced, and therefore their incentive to shift to PR must have been low. By contrast, in countries in which the electorate increased sharply in a short period, the old parties had to compensate their rapidly weakened position with the introduction of a very low threshold. Yet, this explanation does not fare well for Germany and Switzerland, where PR came much later than universal male suffrage.



to shift to PR are rather similar to those under the single-member plurality system.

If the new party is weak, the ruling elite will not shift to PR. Regardless of whether all the candidates in the first round or only a limited number go into the runoff election, in the second round the first-round socialist voters will be very likely to vote for their second-ranked candidate.

If the Socialist Party is strong and there is one dominant nonsocialist party, then the latter has no incentives to abandon the dual-ballot arrangement. In fact, the incentives to shift to PR are even lower than under a plurality system. Either because only the two top parties are legally entitled to advance to the runoff or because voters now know with absolute certainty for which nonsocialist party they should rationally vote, the dominant nonsocialist force can become the only nonsocialist party in parliament without having to risk losing an election. By contrast, in a plurality system, unless all the nonsocialist voters shift automatically to the party with higher electoral chances, the nonsocialist dominant party may have to endure one electoral defeat before getting all the right-wing votes to beat the Socialist Party.

Finally, if the Socialist Party is strong and the parties of the Right are similar in strength, then they have strong incentives to shift to PR. Consider the example in Figure 1B. In the first round, both  $L_1$  and  $C_1$  will get 25% of the vote each, and S will get 50% (i.e., one vote short of the absolute majority). Although S may still be beaten in the second round, one of the old parties will lose all parliamentary representation. More precisely, under a dual-ballot system and fully balanced nonsocialist forces, the odds that the old governing party will disappear are one-half. Under these conditions, it takes only a very slightly risk-averse party to opt for PR.

The decision to shift to PR is even stronger if the nonsocialist camp is more fragmented. Figure 3 represents a case in which three nonsocialist parties share the old electorate, which historically is a rather realistic

situation. Solve M, the Monarchist Party, is positioned at 0.95. C and L are positioned at 0.8 and 0.6, respectively. Before the extension of suffrage to all the population, M polls 25% of the votes, C gets 35%, and L has the remaining 40%. Universal suffrage halves each old party's share of the vote. More important, it threatens to obliterate both M and C, since L automatically becomes the only credible alternative to the nonsocialist party in the second round. Given that either C or M or both are in government (in coalition with L or forming a Conservative-Monarchist cabinet), any deal to introduce universal suffrage will be linked to a shift to PR.

#### **Trade and Proportional Representation**

Taking a rather different approach, Rogowski (1987, 204) concludes that "the more an economically advanced state relies on external trade, the more it will be drawn to the use of PR, a parliamentary system, and large districts." The adoption of PR by a trade-dependent economy is desirable for two reasons. On the one hand, by inducing the formation of a strong party system that integrates and restrains particular interests, PR insulates the state from protectionist interests and enhances its autonomy from rent-seeking groups. On the other hand, in interaction with societal forces, PR induces political and policy stability. As a result, open economies are drawn to PR, either by their own conscious choice (PR is seen a priori as advantageous) or by the functional requirements imposed by trade (countries that do not adopt PR will collapse or perish in the long run).

## **Electoral Rules as Generators of Political Stability**

In response to research insisting on the beneficial effects of plurality rule for governmental responsiveness and political stability (Hermens 1941; see also Downs 1957), a more recent literature emphasizes that PR constitutes the most adequate system to govern (and therefore will be adopted by) any society with a high degree of political segmentation (Lijphart 1977). As noted by Rokkan (1970, 157), "it was no accident that the earliest moves toward proportional representation came in the ethnically most heterogeneous European countries.... In linguistically and religiously divided societies majority elections could clearly threaten the continued existence of the political system. The introduction of some element of minority representation came to be seen as an essential step in a strategy of territorial consolidation" (1970, 157). In homogeneous polities, by contrast, plurality rule can remain in place safely. Since its coordinating effects do not entail the suppression of minority representation, it

 $<sup>^{15}</sup>$  This outcome will take place either because legally only the two top candidates can advance to the runoff or because all the nonsocialist voters coalesce around one party. Notice that a legal limit on the number of candidates allowed into the second round makes it much easier to stop  $\mathcal S.$  The legal constraint eases the coordination process of all nonsocialist voters around a single candidate. If there is no legal limit, then neither  $L_1$  nor  $C_1$  has any incentive to leave the race, and voters will continue to have a difficult time knowing what party they should choose.

 $<sup>^{16}</sup>$  At the turn of the century, the average number of nonsocialist parties in dual-ballot systems was slightly above three. Cox (1997, chap. 6) formally shows that, in equilibrium, the number of viable parties in the single-member dual-ballot system is M+1, where M is the number of parties allowed to advance to the runoff. Most European dual-ballot systems allowed only the two top candidates to compete in the second round.

does not jeopardize the basis of civil peace. Although this explanation carries some weight, later I show that the presence of minorities only leads to PR conditional on both their geographical distribution and the extent to which other mechanisms of representation (such as federalism) are (not) employed.

### THE MEASUREMENT OF ELECTORAL SYSTEMS

I examine the evolution of electoral laws in the universe of developed countries over the period 1875–1990: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States.

## The Dependent Variable: The Effective Electoral Threshold

To explain what caused many (but not all) countries to shift away from plurality or majority rule at the turn of the century, that is, to determine the extent to which the structure of electoral competition, the presence of minorities and the openness of the economy shaped the electoral system, we need an appropriate measure of proportional representation. For this purpose, I use the concept of Effective Electoral Threshold—the proportion of votes that, for each electoral system, secures parliamentary representation to any party with a probability of at least 50% (Lijphart 1994; Taagapera and Shugart 1989).<sup>17</sup> The effective electoral threshold has two advantages. In abstracting from the complexity of electoral systems, which are the composite of different rules regulating the access of citizens to suffrage, the number and use of votes by voters, the number and size of electoral districts, the introduction of thresholds and bonuses, and the allocation mechanisms used to transform votes into seats, it provides us with an empirically tractable variable. Most important, it is a good predictor of the degree to which the electoral law distorts the proportional representation of voters' preferences. As the effective electoral thresholds increases, the proportionality of the electoral system declines and the likelihood of strategic behavior among voters and elites rises.

The definition and measurement of the effective electoral threshold is based on the idea that the percentage of votes a party needs to gain representation is not a specific number but a range of possibilities. In each electoral system, this range is a function of the strength and fragmentation of the remaining parties. It extends from the threshold of inclusion, that is, the minimum percentage of the vote that gives a party a seat under the most favorable circumstances (the rest

of the parties are extremely fragmented), to the threshold of exclusion, that is, the maximum percentage of the vote that, under the most unfavorable conditions (an opposition party gathers all the remaining vote), is still insufficient for a party to obtain representation. A single-member plurality system provides a straightforward illustration of these different thresholds. With four candidates competing for the seat, the threshold of inclusion is 25%. Any candidate who gets more than this percentage wins the seat if the other three candidates split the other votes in equal parts. The threshold of exclusion, however, will be 50% minus one vote, the case in which the rest of the vote is concentrated on a single alternative candidate. The literature calculates the inclusion and exclusion thresholds on the basis of the (average) district magnitude (which includes the possibility of compensatory seats in secondary districts) and the presence of a legal threshold.<sup>18</sup> The effective electoral threshold is then calculated as an average of the inclusion and exclusion thresholds. The effective threshold of single-member plurality and dual-ballot districts is 35%. 19 In a system with four-seat districts and no legal threshold (the average case in Ireland), the effective threshold is 17%. In a 100-seats district, the effective threshold becomes a mere 0.75%.<sup>20</sup> Appendix A lists the cases under study and the variables employed in the article.<sup>21</sup>

## The Historical Evolution of Electoral Regimes

Based on yearly estimations of the effective electoral threshold in individual countries in the sample,<sup>22</sup> Fig-

<sup>18</sup> The threshold of exclusion (Texcl) is calculated as Texcl = V/M + 1, where V is the total percentage of votes, M is the number of seats in the district, and 1 stands for the fact that only one party is running against the candidate in the district. The threshold of inclusion (Tincl), which depends on the average number of parties that are assumed to run in each district, is equal to the highest of the following figures: (1) the legal threshold (i.e., the legally stipulated minimum percentage parties must obtain to be entitled to get seats); (2) Tinclusion = 100/2M (Lijphart 1994, 26ff.). In a different approximation, Taagapera and Shugart (1989, 274–7) calculate the threshold as Tinclusion = N/Mp, where p is parties and is assumed to be M+1. Using the latter formula to calculate the dependent variable does not alter the results reported in this article.

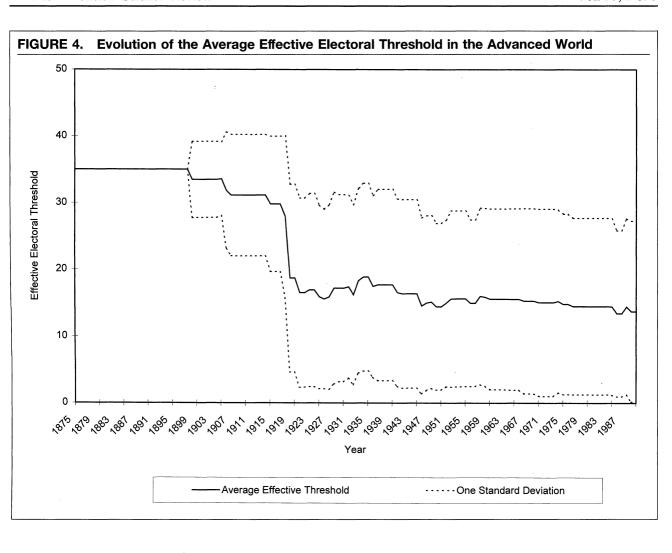
<sup>19</sup> This is the value estimated by Lijphart (1994). Taagapera and Shugart (1989), however, put the effective threshold of a single-member district at 50%. See a discussion in Lijphart (1994, 28).

<sup>20</sup> An alternative operationalization of the dependent variable would specify that it is dichotomous (a value of 1 if the country shifts to PR, 0 otherwise). This has certain disadvantages over the use of a continuous variable (such as the effective electoral threshold). The (rather extended) classification of electoral systems according to allocation formulas is highly arbitrary and excludes fundamental determinants (district size and legal thresholds) of proportionality. Also, a dichotomous classification based on electoral formulas as well as district magnitude and legal thresholds suppresses variance and does not capture the differences that occur within PR systems (Lijphart 1995, 107–10). Still, if a dummy variable is used to measure the dependent variable, the statistical results generally confirm the importance of the threat variable (although confidence levels are slightly weaker). Results are available from the author.

<sup>21</sup> The full year-by-year data set is available from the author and on the *APSR* web site.

<sup>22</sup> For the period after 1945, the values of the effective thresholds are taken from Lijphart (1994). For the period before World War II, the

<sup>&</sup>lt;sup>17</sup> Amorim Neto and Cox (1997), Ordeshook and Shvetsova (1994), and Taagapera and Shugart (1989) employ instead the measure of effective magnitude. Since the effective threshold is the reverse of the effective magnitude, both should be seen as "two sides of the same coin" (Lijphart 1994, 12).



ure 4 presents the average effective threshold for each year from 1875 to 1990.<sup>23</sup> The plurality and dual-ballot systems were the only ones in use in the developed world in the last quarter of the nineteenth century,<sup>24</sup> regardless of whether (male) suffrage was universal or limited. By the turn of the century, and as soon as suffrage was extended and modern mass parties were founded, electoral rules were modified. PR was introduced in Belgium in 1899, Finland in 1906, and Sweden in 1907. The turning point, however, was World War I. By 1919 all the small European states as well as Germany and Italy had embraced PR. The average effective threshold had fallen to around 18% by 1919, and has moved downward only slightly, to around 14%, since then.

As the plurality/majority rule was abandoned, variation in electoral regimes became substantial. Figures 5 through 7 present three sets of cases, grouped accord-

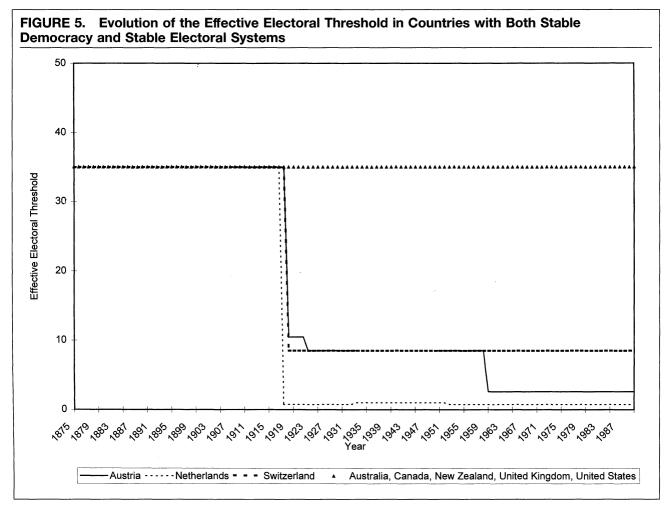
ing to regime evolution and overall stability. Figure 5, which plots stable democracies with stable electoral systems (after the 1910s), includes two sets of nations. One group (Australia, Canada, New Zealand, the United Kingdom, and the United States), despite the introduction of universal suffrage, did not shift to PR. The other group (exemplified by Austria, the Netherlands, and Switzerland), once universal suffrage had been introduced, shifted permanently to PR. Similar cases not shown in Figure 5 are Denmark, Finland, Iceland (since World War II), Luxembourg, Norway, and Sweden.

Figures 6 and 7 graph the evolution of the effective threshold in unstable democracies. Figure 6 shows those countries that, once they moved to universal suffrage, hardly changed their electoral system. Despite an episode of democratic breakdown in the interwar period, which some authors have associated with extreme PR rules, Italy and Germany have maintained low thresholds after World War I. After World War II, Germany raised it moderately; Italy followed the reverse path. In both cases, however, the effective threshold has not exceeded 7.5% after 1919. With the exception of the relatively proportional system imposed by the Allies in the 1946 elections, Japan has employed a

effective thresholds are my own estimations, based on Mackie and Rose 1991, Nohlen 1981, and Taagapera and Shugart 1989.

<sup>&</sup>lt;sup>23</sup> The average effective threshold is the unweighted (for either population, geographical size, or GDP) mean of all thresholds across the countries in the sample for any given year.

<sup>&</sup>lt;sup>24</sup> The same threshold is attributed to both the plurality and the dual-ballot systems by Taagapera and Shugart (1989) as well as Lijphart (1994).



semi-PR system since 1925 (with an effective threshold slightly above 16% before and after World War II).

Figure 7 represents the very few cases in which both democracy and the electoral regime have been unstable. From 1875 to 1990 the French effective electoral threshold changed seven times, and electoral rules have been modified many more times than that. Since 1926, Greece has changed its electoral threshold eleven times. Spain has moved from a relatively high threshold during the 1930s to a moderate PR system since 1977.

### EXPLAINING VARIATION IN EFFECTIVE ELECTORAL THRESHOLD

#### Sample

Given the evolution of the effective electoral threshold over time, I build two samples to explain variation in the selection of electoral rules.

The first sample includes the average effective threshold for all those countries that experienced a period of democratic government in the interwar years (22 observations): Australia 1919–39 Austria 1919–34, Belgium 1919–39, Canada 1919–39, Denmark 1919–39, Finland 1919–39, France 1919–39, Germany 1919–33, Greece 1923–36, Iceland 1934–39, Ireland 1922–39, Italy 1919–23, Japan 1925–40, Luxembourg 1919–39,

the Netherlands 1919–39, New Zealand 1919–39, Norway 1919–39, Spain 1931–36, Sweden 1919–39, Switzerland 1919–39, the United Kingdom 1919–39, and the United States 1919–39.

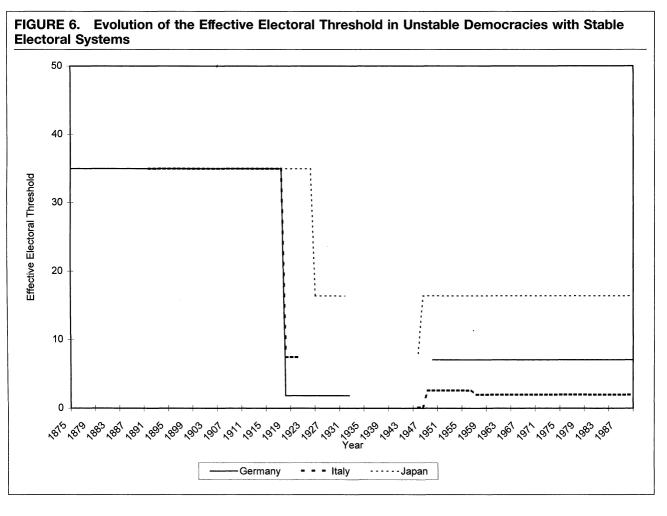
The second sample adds those countries in which democracy was restored after 1945 (31 observations): Austria 1949–90, France 1945–90, Germany 1949–90, Greece 1946–67 and 1975–90, Italy 1946–90, Japan 1946–90, Portugal 1975–90, and Spain 1977–90.

#### **Explanatory Variables**

Two sets of theories are explored in this article. The two groups of variables relevant to each are described below.

First, to test the effect of ruling parties' calculations on electoral structure, I use the following variables. (1) The proportion of socialist votes, or *Strength of Socialism*, ranges from 1% in Japan, to 44% in Sweden, to 53% in Portugal. (2) the *Effective Number of Old Parties* (nonsocialist), or N, 25 ranges in the sample from around 2 in Italy (1913) and the United States to 6 in Germany (1913). (3) *Threat* is the interactive term of

 $<sup>^{25}</sup>$   $N=1/\Sigma p_{i}^{2}$ , where  $p_{i}$  is the fractional share of every nonsocialist party i. For a definition and discussion of N, see Taagapera and Shugart (1989, 79–80).



the two previous variables. If the model suggested in this article is correct, then the higher the threat variable, the more likely any country will be to shift to PR. The components of the interactive terms also could explain on their own why PR was introduced by the old parties in power. First, at a very high level of socialist vote, even if conservatives were able to merge into a single party, the winner-take-all nature of the plurality system could still deliver a socialist absolute majority in parliament. Second, an extraordinary degree of fractionalization within the nonsocialist camp could allow an essentially weak socialist party to gather a parliamentary majority under non-PR rules. These two extreme conditions were exceptional, however. At the beginning of the interwar period, the average level of socialist vote was 22.5%, and the average effective number of nonsocialist parties hovered around three. Thus, it is reasonable to expect that the transformation of electoral rules was mainly driven by the joint effect of socialist strength and conservative fragmentation.<sup>26</sup> (4) The year in which male universal suffrage was introduced reflects the expectation that the earlier the introduction, the more capable are old parties in controlling the electoral arena and the less likely they are to shift to PR.

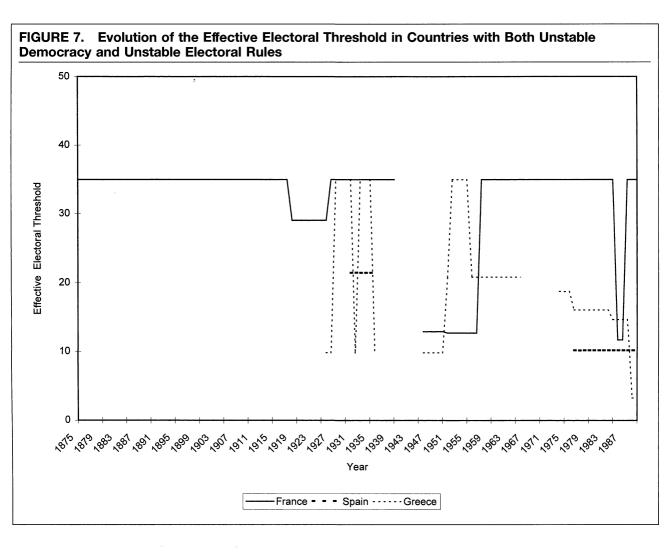
The percentage of socialist votes and the number of effective nonsocialist parties for the interwar sample are calculated on the following basis: (1) results of the first elections under male universal suffrage (in the twentieth century) in those countries that did not change to PR,<sup>27</sup> (2) results of the last elections held under plurality/majority rule in those countries that shifted to PR, provided they were contested under male universal suffrage,<sup>28</sup> and, (3) when male universal suffrage was jointly introduced with PR, the results of those elections.<sup>29</sup> Socialist strength and the number of

 $<sup>^{26}</sup>$  I have operationalized the effective number of parties as N for systems with plurality rule and N-1 for countries with runoff elections, since the fractionalization of the nonsocialist camp may have to be higher in the dual-ballot system than under plurality rule to secure the victory of a socialist party and therefore to push the old parties to shift to PR. This alternative operationalization of fractionalization (not reported in Table 1) leads to results very similar to the use of N.

<sup>&</sup>lt;sup>27</sup> Australia 1902, Canada 1921, Ireland 1922, Japan 1928, New Zealand 1919, Spain 1931, United Kingdom 1918, and United States 1904. For France the elections are 1914, since an electoral reform in 1919 lowered the threshold from 35% to 29%.

<sup>&</sup>lt;sup>28</sup> Austria 1911 (returns in German-speaking provinces), Belgium 1894, Germany 1912, Italy 1913, and Switzerland 1917.

<sup>&</sup>lt;sup>29</sup> Denmark 1918, Finland 1907, Luxembourg 1919, the Netherlands 1919, Norway 1918, and Sweden 1921. Employing the results of the prior election in each country does not change the results (Finland is not used in this case because its elections before 1906 encompassed only 4% of the adult population). In Iceland the first elections with complete universal suffrage (i.e., after the exclusion of people on



nonsocialist effective parties for the new postwar democracies are estimated for the country's first democratic election.

The second set of variables is used to test other possible explanations (discussed at the end of the first section). I consider three aspects. (1) Trade Openness is measured by the log value of the sum of exports and imports as a proportion of GDP during the first years of the interwar period and at the time the new democratic regimes were established after 1945.30 (2) The size of the country is measured as the log value of the Population and the log value of Geographical Area (in thousands of km<sup>2</sup>). (3) The presence of minorities is measured through Ethnic and Linguistic Fractionalization, an average of two indexes. The Russell Index reported in Taylor and Hudson (1972, 271–4), ranges from 0.02 in Japan, to 0.70 in Belgium, to 0.75 in Canada. For religious fractionalization, I also made estimates following the data reported in Taylor and

public assistance was abolished) were held in 1934. A semi-PR system had been introduced there in 1920 (leading to an effective threshold of 11.3%), and more proportional measures were enacted in 1942. Employing the results of 1942 does not change the results in Table 1.

Hudson (1972, 275–8), and this index ranges from 0 in Spain and Sweden to 0.68 in Canada.<sup>31</sup>

#### **Empirical Results**

Table 1 displays the results for the sample of interwar countries. When the whole sample is used (including the postwar cases), the results hardly vary.<sup>32</sup>

Column 1 reports the results of the central regressors: threat, (log of) geographical area, (log of) trade openness, (log of) population, and ethnic and linguistic fragmentation.<sup>33</sup> The level of variance explained is 61%

<sup>&</sup>lt;sup>30</sup> The measure is taken from Mitchell 1975, 1982, 1983.

<sup>&</sup>lt;sup>31</sup> Both indices measure the likelihood that two randomly selected members of a given country will belong to different ethnic or linguistic (or religious in the second index) groups and are calculated using the Rae index of fractionalization.

<sup>&</sup>lt;sup>32</sup> Results using the whole sample are reported in Appendix B.

<sup>&</sup>lt;sup>33</sup> The year in which universal suffrage was introduced has no statistical significance and a coefficient opposite in sign to my theoretical expectations. This result may be in line with Przeworski (1975), who shows that most voters have a well-defined political identity before their actual electoral mobilization takes place. That would reduce the effect of the timing of universal suffrage on electoral rulemaking and would explain why there is no apparent relationship between male universal suffrage and the likelihood of adopting PR. This variable was dropped from the results.

TABLE 1.	The Choice of Electoral Rules in	
the Interwa	r Period	

Dependent Variable: Average Effective		2	
Threshold in 1919–39	Model 1	Model 2	Model 3
Constant	-2.48 (43.12)	-22.74 (17.14)	31.21* (4.70)
Threat <sup>a</sup>	-11.58* (4.39)	-40.17* (18.92)	-13.55* (4.94)
Strength of socialism <sup>b</sup>		78.96 (58.71)	
Effective number (N) of old parties <sup>c</sup>		8.92 (5.18)	
Geographical area (log 000 km²)	10.19* (5.24)	9.67* (2.17)	
Trade openness (log) <sup>d</sup>	1.15 (8.36)		
Population (log)	0.04 (1.54)		
Ethnic and religious fragmentation <sup>e</sup>	-4.32 (13.34)		
Fragmentation × area dummy <sup>f</sup>			-32.14* (14.61)
R <sup>2</sup>	0.61	0.67	0.39
Corrected R <sup>2</sup>	0.49	0.59	0.33
SEE	9.22	8.24	10.56
Number of observations	22	22	22

*Note*: Estimation is by ordinary least squares. Standard errors are in parentheses \* $p \le 0.05$ 

<sup>e</sup>Ethnic and religious fragmentation is the average of Russell indices of ethnic and linguistic fractionalization and of religious fragmentation (Taylor and Hudson 1972, 271–7).

Fragmentation  $\times$  Area Dummy is the interactive term of the combined index of ethnic and religious fragmentation and geographical area, which is 0 for countries bigger than 450,000 km², 1 otherwise.

(see Table 1). Both threat (the interaction of socialist vote and conservative fragmentation) and geographical area are statistically significant, but population and trade are not.<sup>34</sup> Although ethnic and religious diversity has no statistical significance either, its coefficient has the right sign: The more ethnically and religiously fragmented a country, the lower the electoral thresh-

TABLE 2. Simulating the Choice of the Effective Electoral Threshold: The Interactive Effects of Socialist Strength and the Effective Number of Nonsocialist Parties

Effective Number of Nonsocialist	Percentage of Socialist Votes			
Parties	10	20	30	40
2	29.2	26.9	24.6	22.3
	(3.7)	(3.3)	(3.2)	(3.2)
4	26.9	22.3	17.6	13.0
	(3.3)	(3.2)	(4.0)	(5.3)
6	24.6	17.6	10.7	3.8
	(3.2)	(4.0)	(6.0)	(8.3)

Note: Results are derived from Table 1, column 1. The log of geographical area is set to 3, and trade openness, population, and ethnic fragmentation are set at their mean values. Standard errors are in parentheses.

old.<sup>35</sup> When trade, population, and fragmentation are dropped, threat and geographical size alone still explain 61% of the variance—the corrected  $r^2$  is 0.58 (not reported in any of the tables).

The Effect of Threat. As predicted, the higher the threat faced by the old ruling parties, the lower is the new electoral threshold. Based on the results in column 1 of Table 1, Table 2 simulates the level of the effective threshold, once universal suffrage is introduced, for different combinations of socialist strength and conservative fragmentation.<sup>36</sup> The effective threshold stays close to 30% (a value equivalent to having singlemember districts) when there are two main nonsocialist parties and the socialist alternative is weak (the U.S. case). For low levels of socialist vote, growing nonsocialist fragmentation leads to a mild reduction in effective thresholds: from around 29% to 24% (the equivalent of an average district magnitude of 2.5 seats). In turn, holding constant the effective number of conservative parties, socialist vote drives the threshold down from 29% to around 22%. Although socialism is a threat, the ruling parties are still unified enough to take advantage of a relatively disproportional system. Above all, the simulation shows the powerful interactive effect of both variables. With a socialist party capturing just 20% of the vote and four nonsocialist parties, the threshold falls by 10 points, from 31.5% (the level with no socialist party) to 22%. With very high levels of conservative fragmentation and a strong socialist party, the ruling parties move decisively to a pure PR system. The German case fits quite well. In 1913 the Socialists polled 34% of the vote, and the

parentheses. \* $p \le 0.05$ . <sup>a</sup>Threat is the interactive term of the strength of socialism and effective number of old parties variables.

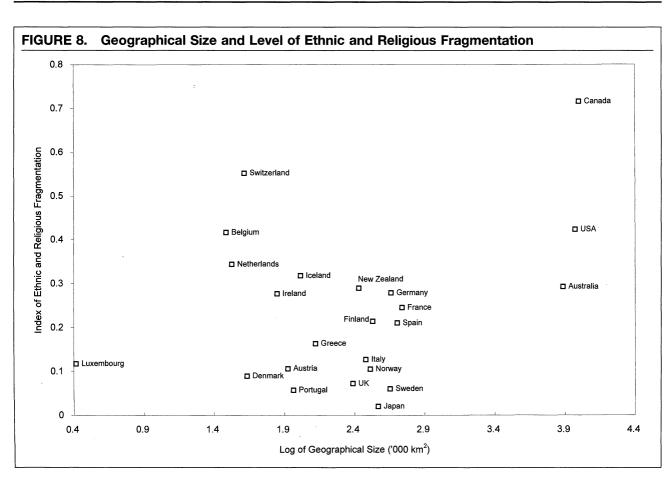
<sup>&</sup>lt;sup>b</sup>Strength of socialism is measured by the proportion of votes (from 0 to 1) for socialist and communist parties in the first elections contested under universal male suffrage (Mackie and Rose 1991).

 $<sup>^{\</sup>circ}N$  is the effective number of nonsocialist parties in the first elections contested under universal male suffrage. It is calculated as  $N=1/\Sigma p^2$ , where  $p_i$  is the fractional share of every nonsocialist party i. For a definition and discussion of N, see Taagapera and Shugart (1989, 79–80). Estimations are based on data from Mackie and Rose 1991.  $^{\circ}$ Trade openness is the log value of sum of exports and imports as a percentage of GDP in 1920–25 (Mitchell 1978, 1982, 1983,

 $<sup>^{34}</sup>$  Given that trade and geographical area are correlated, a joint F-test is in order. It shows that openness is not statistically significant.

<sup>&</sup>lt;sup>35</sup> An important strand of the literature, dating back to Almond (1956), distinguishes between homogeneous and heterogeneous political cultures. To test its effects, I built a dummy variable that, following Lijphart 1977, takes the value of 1 for Anglo-American and Scandinavian countries as well as West Germany. It is not statistically significant.

<sup>&</sup>lt;sup>36</sup> For the simulation, the log of geographical area was set to 3 (around 600,000 km²), and trade openness, population, and ethnic and religious fragmentation were set at their mean values.



effective number of conservative parties was six. The 1919 German effective threshold was 1.84%.

Column 2 (in Table 1) explores the robustness of the threat variable. Trade, population, and ethnic fragmentation (which were not statistically significant in column 1) are dropped, and the two components of the interactive threat term are added as separate variables. Threat is still highly significant. Its coefficient increases, which should be expected, since the interactive term is well correlated with both of its components.<sup>37</sup> Notice that, against theoretical expectations, the coefficients of socialism and the effective number of old parties are positive. Yet, a joint F-test shows that neither socialist strength nor conservative fragmentation is statistically significant. Thus, the overall results of column 2 in Table 1 and particularly the statistical strength of the interactive term show that, in line with my main argument, threat is the fundamental factor in determining the choice of electoral threshold.

Size, Trade, and Internal Fragmentation. Geographical area explains part of the variation in electoral thresholds.<sup>38</sup> The larger the country, the higher is the electoral threshold. It is possible that size itself determines the choice of electoral regime, and it has been advanced as an explanatory variable in politics (Dahl and Tufte 1973). The coordinating consequences of plural-

ity rule may be particularly valuable for large countries. It is more likely, however, that size is a proxy for other variables.

Size may capture the effect of trade openness. Geographical area is highly correlated with trade: The Pearson's coefficient is -.85 for the interwar sample and -.68 for the whole sample. Still, the claim is problematic, given the poor statistical performance of trade once we enter size (see Table 1, column 1).<sup>39</sup>

Size is, above all, a proxy for the way in which ethnic and linguistic fragmentation affects each country and the means elites devise to deal with it. Consider Figure 8, which displays the relationship between ethnic and religious fragmentation and geographical size. The graph shows a concave relationship (particularly if we exclude Luxembourg). Medium-sized nations such as Sweden and the United Kingdom have low fractionalization scores. Fragmentation turns out to be especially high in either very small (Switzerland, Belgium, and the Netherlands) or very large countries (Australia, Canada, and the United States).

The institutional response to fragmentation varies, however. In small countries, political elites have introduced PR to accommodate ethnic and religious minorities. By contrast, in extremely large countries, such as Australia, Canada, and the United States, PR has not been adopted. Why? It is unconvincing to argue that

<sup>&</sup>lt;sup>37</sup> The correlation coefficient is .67 between threat and socialist strength and .65 between threat and conservative fragmentation.
<sup>38</sup> The same result is obtained by Blais and Massicotte (1997).

<sup>&</sup>lt;sup>39</sup> For a full discussion of Rogowski's theory, its empirical test, and the possible reasons for its weaknesses, see Boix 1992.

there was no pressure to embrace PR to secure minority representation because ethnic and linguistic fragmentation in these countries (a by-product of large-scale migrations in the nineteenth century) did not crystallize into specific political cleavages, as it did in Europe. This explanation may be valid for Australia and even the United States, but it does not fit the Canadian case.

A more satisfactory explanation (which accepts, in a qualified manner, the importance of minority representation) must consider, instead, both the geographical distribution of minorities and the adoption of alternative mechanisms to represent them. In many small European nations, where religious (and sometimes ethnic) cleavages tend to be distributed uniformly across the country, the maintenance of a single-member single-ballot system clearly would have benefitted the strongest minority. Accordingly, either for the sake of civil peace or mere survival, the old ruling parties avoided a (plurality rule) that would have suppressed minority representation. By contrast, in very large countries, where ethnic and religious minorities tend to be concentrated in specific regions, PR is not necessary to secure the political participation of any significant ethnic or linguistic group. Canada is a case in point. It has a plurality system, but Québécois interests are represented in Ottawa.<sup>40</sup> Even if a country is extremely heterogeneous at the national level, if its regions and local districts are rather homogeneous, a different set of mechanisms—such as federalism and a strict separation of powers—can secure the representation of political minorities and hence make PR superfluous.<sup>41</sup> In short, under certain conditions, federalism operates as a (quasi-perfect) substitute for PR and minimizes any potential pressures to abandon a plurality/majority system.42

To measure the effect of fragmentation while controlling for size, I developed the variable *Fragmentation*  $\times$  *Area Dummy*, where the dummy is 0 for countries larger than 450,000 km<sup>2</sup>, 1 otherwise. Column 3 (in Table 1) reports a regression for threat and this new interactive term. Both variables are statistically significant. For small and medium-sized countries,

fragmentation increases the chances of adopting a PR system. Other things being equal, a highly fragmented country (such as Switzerland) should have a threshold 17 points lower than a homogeneous country (such as Japan).

#### CONCLUSION

Three historical periods can be distinguished in the evolution of electoral regimes in the developed world over the last century. During the era of limited suffrage in the nineteenth century, plurality/majority rule was consistently used across all nations. At the turn of the century, the old consensus around the single-member system broke down. Anglo-Saxon countries preserved the plurality rule, but most nations in continental Europe embraced PR. Finally, the 1920s ushered in a new era of remarkable stability in the structure of electoral regimes. In the last eight decades, major changes in electoral rules have been limited to France, Greece, and (to some extent) Spain.<sup>43</sup>

The selection (and preservation) of different electoral rules can be traced to the strategic decisions made by the current ruling parties, foreseeing the coordinating consequences of different electoral systems, to maximize their representation in parliament. As long as the electoral arena in which they compete is stable and the electoral system serves them well, the ruling parties have no incentives to modify any electoral norm. A sudden transformation of the electoral market and a corresponding increase in the degree of uncertainty are likely to trigger a change in the electoral regime. Four different phenomena may lead to transformation of the political arena: the extension of universal suffrage (Western Europe in the 1910s or new democratic nations in the postwar period); the introduction of competitive elections (Eastern Europe and several African nations in the 1990s); a massive political realignment among voters (the rise of socialism at the turn of the century or today's rise of protectionist parties, which would partly explain why France temporarily shifted to PR in 1986–88); and a high turnover in party organizations (France and Greece in this century).44

The degree to which the ruling parties decide to modify the current electoral rules depends on the extent to which the latter undermine the former's political viability in the new electoral arena. This is, in turn, a function of two main conditions: the strength of the new parties and the capacity of the old ruling parties to coordinate among themselves to block the

<sup>&</sup>lt;sup>40</sup> The evolution of electoral law in Switzerland fits this model nicely. The introduction of PR rules at the national level took place late (when the emergence of the Socialist Party threatened the hegemony of the Radicals), mostly because majority rule did not harm any minorities significantly. Since they were relatively concentrated geographically, they could attain a fair share of seats in the federal parliament. By contrast, within some cantons, such as Geneva and Ticino, different social groups were more likely to overlap, and political clashes over the electoral system emerged there as early as the mid-nineteenth century (Carstairs 1980, 135–46).

<sup>&</sup>lt;sup>41</sup> The creation of personal constituencies (the step taken by New Zealand with the establishment of several Maori-only constituencies) or gerrymandering can also be seen as ways to secure the representation of certain minorities without shifting to PR.

<sup>&</sup>lt;sup>42</sup> From this discussion, it follows that the index of ethnic and religious fragmentation employed here is partly flawed for my purposes. Since it only captures fragmentation at the national level, it cannot measure properly the degree to which plurality systems, by thwarting the representation of minorities, may generate instability in the national political system. It will only be possible to examine this problem if we develop measures of ethnic and linguistic fragmentation at the district level.

<sup>&</sup>lt;sup>43</sup> Italy and New Zealand also have introduced changes very recently. <sup>44</sup> The instability of the electoral systems in those cases is strongly related to the characteristics of the party system. Between 1945 and 1970, the instability of voter support for French parties was two and one-half times greater than the average in other advanced democracies (Rose and Urwin 1970). More generally, the Pearson's r between total volatility in vote shares and the standard variation of the effective threshold in the sample of OECD nations in 1900–80 is 0.74. Total volatility is computed  $\left[\sum_{i=1}^{n}(|p_{it}-p_{it+1}|/2)\right]$ , where n is the number of parties in the system, and  $p_i$  is the electoral support in percentage for party i at time t and t+1. See Bartolini and Mair (1990) for a detailed discussion of this measure.

growth of new parties. On the one hand, if the newcomers are strong, the old parties shift to PR whenever they are locked into a non-Duvergerian equilibrium, that is, when they are either tied in votes or are supported by strongly committed voters. Since elite or voter coordination around one of the old parties is extremely unlikely to happen, the current government abandons plurality/majority rule to avoid the extraordinary costs it imposes on weaker candidates of the old parties. This matches the decision to embrace PR in most small European countries. On the other hand, even if the new parties command high levels of support, there are no incentives to shift to PR if one of the old parties enjoys a dominant position among the electorate. Under this circumstance, which fits the British case, the dominant party rationally expects to become the rallying point for voters who want to block the victory of the new party. Finally, when the new entrants are weak, non-PR rule will remain in place, regardless of the structure of the old party system.

My analysis of the origins of different (electoral) institutional equilibria in democratic countries opens up at least two broad research questions. First, given that the selection of different electoral rules hinges on the political conditions under which the ruling parties operate, in other words, because electoral rules ultimately are endogenous to the political system, we are pushed again to examine what shapes those conditions. What determined the number of nonsocialist parties in the 1910s and 1920s across countries? Why was the coordinating capacity of elites different across countries? Why did it take so long to establish stable party systems and electoral rules in countries such as France or Greece? Responses to these questions (as well as an examination of the bargaining rounds among elites that led to different institutional solutions) require a historical analysis beyond the scope of this article. The model presented here, however, provides the theoretical foundations for such work.

Second, I have examined the choice of electoral rules in developed democracies. In these countries, the government could predict with some certainty the future structure of electoral competition; parties had, in most cases, become national; and parliamentary and semipresidential systems were (excluding the United States) the norm. Since the choice of an electoral system in a developing country that embraces democracy for the first time or after a very long period of

authoritarianism may not meet these conditions, predictions about that choice ought to change correspondingly. First, under conditions of very high uncertainty about the structure of the electoral arena, the ruling elite will select the system most likely to minimize risks, so it will lean toward a mixed or pure PR system. Second, if parties are collections of local notables, then there may be an incentive to embrace single-member districts or multimember districts in which voters have as many votes as seats, since these structures strengthen local ties and patronage politics.<sup>45</sup> Third, the choice of electoral systems is likely to be affected by the type of transition to democracy. PR (and a weak presidency) will be more likely in countries where democracy is imposed from below. By contrast, in those places where the old elite has liberalized the regime while controlling significant resources, a high electoral threshold may be more common.<sup>46</sup> Finally, given that newly democratizing countries vote a new constitution ex nihilo, the electoral law will be particularly shaped by the broad constitutional framework the powers of executive and assembly as well as the level of decentralization—finally chosen. As revealed by my examination of the influence of ethnic and religious diversity, the degree of proportionality in the electoral system will depend in part on the use of alternative mechanisms, such as federalism, to manage conflict and fulfill the goal of fair political representa-

<sup>&</sup>lt;sup>45</sup> Being a former British colony has been found to be a strong predictor of whether a country chooses a single-member plurality system (Blais and Massicotte 1997). Accordingly, the adoption of electoral rules in developing countries is mostly presented as a validating example of the influence of ideas and the diffusion of cultural models on political and constitutional choices. (For recent works on the role of ideas, see Goldstein and Keohane 1993 and Hall 1989.) The strategic model proposed here questions this traditional model in the following way. Assume that Britain shaped, through both the political institutions it established and the way negotiations toward independence were carried out, a rather stable set of ruling parties or elites in its colonies. As long as these parties (perhaps a coalition of local patrons) were viable under the first-past-the-post system, no changes should be expected after the declaration of independence (i.e., India and the dominant position of the Congress Party).

<sup>&</sup>lt;sup>46</sup> The introduction of a constraining electoral system could take two forms: a parliamentary regime and plurality rule, or a presidential system with strong powers for the executive and concurrent presidential and legislative elections. See Shugart and Carey (1992) for evidence suggesting that this latter system depresses the number of parties significantly.

APPENDIX A					
		W 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	Effective		Index of
	?		Number of		Ethnic and
		% of	Nonsocialist	Size (in 000	Linguistic
Country	Threshold	Leftist Votes	Parties	km²)	Fragmentation
Interwar Period					
Australia	35.0	31.0	2.29	7686.8	0.293
Austria	8.9	25.4	2.57	83.8	0.106
Belgium	4.8	14.9	2.75	30.5	0.416
Canada	35.0	2.3	3.12	9976.2	0.715
Denmark	2.9	28.7	3.12	43	0.089
Finland	5.7	37.0	3.50	337	0.214
France	32.9	20.7	4.79	547	0.245
Germany	1.8	34.8	6.02	456.8	0.279
Greece	25.8	10.9	4.42	131.9	0.163
Iceland	11.3	27.7	2.26	103	0.318
Ireland	17.2	21.3	2.91	70.3	0.277
Italy	7.5	17.6	2.03	301.2	0.127
Japan	24.1	1.2	2.65	369.7	0.020
Luxembourg	5.2	15.6	2.31	2.6	0.117
Netherlands	0.8	24.3	4.97	33.6	0.344
New Zealand	35.0	23.8	2.38	268.7	0.289
Norway	9.2	31.6	2.66	324.2	0.105
Spain	21.5	21.7	3.65	504.7	0.210
Sweden	8.8	44.0	2.75	449.8	0.060
Switzerland	8.5	30.8	2.42	41.3	0.552
United Kingdom	35.0	22.5	2.46	244	0.072
United States	35.0	3.6	2.10	9363.4	0.423
Postwar Period					
Austria	4.1	38.7	2.03	83.8	0.106
France	28.0	41.1	2.73	547	0.100
West Germany	26.0 7.1	29.2	4.70	248.5	0.243
Greece - 1946–67	20.9	19.3	1.97	131.9	0.263
Greece - 1940-07 Greece - 1975	20.9 14.7	23.1	1.75	131.9	0.163
	2.0	39.6	2.70	301	0.101
Italy	16.2				0.127
Japan		21.8	3.09	369.7	
Portugal	5.8	53.5	2.35	92 504.7	0.057
Spain	10.2	34.8	4.26	504.7	0.210

APPENDIX B. The Choice of Electoral Rules	s in the Interwar Pe	eriod and New Democ	racies after 1945
Dependent Variable: Average Effective Threshold	Model 1	Model 2	Model 3
Constant	-13.03 (22.51)	-18.13 (14.40)	30.02* (4.70)
Threat <sup>a</sup>	-11.27* (3.39)	-34.07* (15.82)	-13.24* (3.89)
Strength of Socialism <sup>b</sup>		57.70 (45.86)	
Effective number (N) of old parties <sup>c</sup>		7.31 (4.50)	
Geographical area (log 000 km²)	11.33* (3.45)	9.89* (1.99)	
Trade openness (log) <sup>d</sup>	2.96 (4.43)		
Population (log)	0.08 (1.32)		
Ethnic and religious fragmentation <sup>e</sup>	-2.26 (11.18)		
Fragmentation $\times$ dummy area <sup>f</sup>			-31.45* (12.50
$R^2$	0.60	0.42	0.37
Corrected R <sup>2</sup>	0.52	0.34	0.33
SEE	8.27	7.76	9.71
Number of observations	31	31	31

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