

# Theoretical Explanation of Presidentialism's Effect on Party Competition

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Institutions have an impact in ways that go beyond the office in question, the actors involved, and how the votes are counted in an election. Institutions can also have an impact on other institutions. This is the case of elected heads of state in democratic regimes, with regards to how parties ideologically position themselves in legislative elections.

Standard models of party positioning in legislative elections make the assumption that the only election occurring in a given country is the legislative election. In other words, the model assumes that the country has a parliamentary regime.

However, in presidential regimes, most of the attention is focused on the presidential election, and not the legislative election. The purpose of this chapter is to give the theoretical explanation as to how parties ideologically position themselves in countries that directly elect their presidents.

The first portion of the chapter will provide a literature review of existing works on spatial modeling and party/candidate positioning. This is followed with providing the rationale for bringing in assumptions of presidentialism into existing models. After that, a formal explanation of party/candidate positioning in legislative and presidential elections will be given.

After the models of these two types of elections are presented, then the formal process of modeling legislative elections in presidential regimes can be explained. Once it is explained how legislative elections are modeled within the context of presidentialism, a survey of the most relevant combinations of presidential and legislative elections will be shown. This will set up the final portion of the chapter, which will model these specific combinations.

# 1 Literature Review

Models of party competition are concerned with two primary actors: voters and candidates (or parties). In the models, both types of actors are assumed to be acting out of self-interest. This means that the voter has an established stake or interest in the results of an election, which leads them to vote in the manner that they do. These models simply assume that the voter understands their own self-interest, weighs alternative choices based on which of them will further their self-interest, and votes for the candidate or party that was most favorably evaluated. The voter is therefore acting in a rational manner. Candidates and parties are acting rationally as well.

Each candidate or party sees a link between the platform of issues they offer, their past records, as well as personal characteristics and the votes that they receive. The candidates or parties goals are simply to win the election; whether that entails winning enough votes or seats to do so, or by maximizing their vote or seat share. In addition, the candidates and parties will have the assumption that voters are self-interested.

Using spatial terms, the voter will vote for the candidate or party that is the closest to them in space, which delineates all of the factors that are of interest to the voter. The factors might be policy issues, such as taxation, defense, and immigration. The factors can also be candidate traits, such as likability and experience.

It should be kept in mind that the term self-interest in this context does not solely mean economic self-interest. Self-interest can encompass a broad range of issues. For example, the issue of going or not going to war might be of self-interest to a voter, since the voter derives self-interest in the form of security from their valuing of the issue (Enelow and Hinich, 1984).

The earliest inspiration for using spatial modeling to explain electoral competition comes from location games devised by Hotelling (1929) and Smithies (1941). In these games, two firms are competing over locations on a street. This leads the firms to end up putting their shops next to each other in the middle. This is so that they can each serve one half of the customers on the street.

Downs (1957) then took the basic Hotelling-Smithies model and applied it to plurality elections with two candidates. The equilibrium that was uncovered here was similar to Hotelling and Smithies in that the model was in equilibrium whenever both candidates took the same position, being the location of the median voter. Each of the candidates move to this location because either of them would be worse off if they deviated even slightly from that position.

One of the earliest attempts at spatially modeling party competition in proportional and multiparty elections was by Greenberg and Shepsle (1987). In their model, it was shown that there could be equilibria in which parties took positions away from the median voter. Cox (1990) combined an analysis of both plurality and proportional elections to show situations in which both types of elections could have centrist and non-centrist equilibria. These equilibria are conditional on the district magnitude, number of candidates (or parties), and the number of votes per voter in each election.

Work since then has incorporated probabilistic voting into spatial competition models. These are models where a degree of uncertainty is added into peoples vote decision. Essentially, voters will not always vote for the candidate that is closest to them. These models also have a tendency to bring in non-policy factors (Enelow and Hinich, 1989) and party identification (Adams et al., 2005). Some of the outcomes in probabilistic spatial models have confirmed Coxs propositions on centrist and non-centrist outcomes (Dow, 2001; Schofield, 2004), while others have run counter to them (Lin et al., 1999; Ezrow, 2005).

## 2 Problems With Existing Literature

All of the previous research on spatial models has made an implicit assumption. That is, parties or candidates position themselves in elections where voters only have to concern themselves with voting for one branch of government. This assumption is, I suggest, problematic when we try to apply spatial models to explain party competition in legislative elections not held in parliamentary regimes. This is because voters must cast ballots both for a legislative party and a presidential candidate in presidential regimes and because of the potential impact of presidential elections on the legislative elections.

Because of this electoral separation of the executive and the legislature, a partys main goal is to win the executive election, not to maximize their share of legislative seats. As a result, parties are more likely to organize around that purpose in presidential regimes (Samuels, 2002; Samuels and Shugart, 2010). In addition, presidential elections can affect legislative elections through coattail effects, where a partys prospects at the legislative level are affected by their partys prospects in the presidential election (Jones, 1994; Shugart, 1995).

The coattail effect operates by running down from the more important institution

(the presidency in this case) to the less important institution (the legislature). In presidential regimes, the presidency is considered the bigger prize for parties. As a result, presidential elections garner most of the media attention, along with receiving more campaign donations and having better campaign organizations. These reasons are why legislative parties are incentivized to run their campaigns around their party's presidential candidate, in the hopes of benefitting from the advantages that presidential candidates possess (Samuels, 2002).

These coattail effects have an effect on the party system as a result. Prior research has shown that presidentialism can affect the size and fragmentation of the party system at the legislative level (Jones, 1994; Neto and Cox, 1997; Mainwaring and Shugart, 1997; Samuels, 2002; Mozaffar et al., 2003; Golder, 2006; Hicken and Stoll, 2011). In addition, some of this research has shown that presidential coattails can help a president's party achieve success in legislative elections (Born, 1984; Mondak, 1993; Flemming, 1995; Shugart, 1995). Also, voters will also use presidential elections as an informational shortcut to help guide their choice in the legislative election (Golder, 2006).

A key aspect of a party running their legislative campaign around their party's presidential candidate would involve modifying their ideological positions to be more in tune with their party's presidential candidate. Presidential elections thus work as an external factor in explaining how parties position themselves ideologically in the context of presidential regimes. However, previous research on presidentialism has not specifically analyzed how presidentialism can affect how parties decide to ideologically place themselves in legislative elections.

This analysis on the impact of presidentialism on legislative party competition becomes more important when one looks at the recent empirical evidence on the state of the world's democratic regimes. In the mid-1970s, over 60 percent of the world's democracies were parliamentary regimes. In the years since then, the number of democracies in the world has increased, primarily due to democratization coming mainly from Latin America and Eastern Europe since the 1980s. One of the results of this recent wave of democratization is that it increased the number of countries in which voters have to cast separate ballots for their head of state and their legislature. Today, two-thirds of all democracies in the world elect their presidents directly (Samuels and Shugart, 2010).

With this in mind, the existing set of party competition models are speaking to a

smaller and smaller set of the world's democracies. This limits our ability to understand party competition across the full spectrum of democracies. This analysis therefore has normative implications as well, concerning the consequences of different types of democratic institutions. When countries modify their political institutions, voters are affected by these changes. Research shows that differing electoral rules have effects on how voters perceive electoral fairness. Namely, that proportional elections leads voters to perceive the democratic process as being fairer than in countries with less proportional elections (Anderson et al., 2005; Birch, 2008).

Changes in institutions affect voters views toward the democratic process. If presidentialism modifies some of the effects that proportional elections have on legislative party systems, then there are implications with regards to how fair these elections are in the minds of voters. These evaluations of the electoral process are critical in countries that are seeking to consolidate democracy (Elklit, 1999).

It should be noted that the stated percentage above of democracies that elect their presidents also includes the category of semi-presidential regimes. Semi-presidential regimes are considered hybrid systems, in which there is prime minister responsible to the legislature, alongside an elected president with a considerable amount of power (Duverger, 1980). This type of regime has the same effect that pure presidential regimes have, in that voters in semi-presidential regimes have to cast different ballots for the legislature and the president.

In addition, there are some parliamentary regimes in which there is an elected president who operates as head of state, but have little to no actual powers (Ireland, Portugal, and Austria are cases of this instance). In situations where voters are voting for a weaker president, the effects of presidential elections on legislative party competition will not be as strong. However, the fact that voters in these countries vote for a president separate from the legislature is still important, and coattail effects will still be present (albeit weaker) in these regimes. These distinctions will be explored in-full later in this chapter, during the discussion on variables that affect how strong of an effect presidential elections play on legislative party competition.

### 3 Formally Modeling Legislative and Presidential Elections Separately

This portion of the chapter will provide separate examples of party competition in legislative and presidential regimes. First, the positioning of parties in legislative elections will be presented. This will be followed by a demonstration of the positioning of candidates in presidential elections.

For both legislative and presidential elections, different variations of each will be shown according to varying balloting rules. In legislative elections, models will be shown for legislative elections that use a majoritarian electoral system and those that use proportional representation. For presidential elections, models will be presented for elections that are conducted with a plurality ballot and those that utilize a runoff ballot. After the models for both legislative and presidential elections are given, I will show what happens when we model legislative elections within the context of a presidential regime.

In the following models, there are two key actors: the parties (or candidates) and voters. For the models demonstrating spatial competition in legislative elections, parties will be used, and in the models showing competition in presidential elections, candidates will be used.

Next, I describe the action space in which the actors take part. The action space is a policy space which will be defined as  $X$ .  $X$  is a closed infinite set on a one-dimensional real line, with  $X = [0, 1]$ . 0 is the most extreme party position a party can take on the left, and 1 is the most extreme position a party can take on the right.

However, single-dimension lines are not the only way in which ideology can be measured. Two-dimensional lines can be used, where issues are grouped into two broad categories. This was first devised by Davis et al. (1970). In many cases, this takes the form of one category representing economic issues, while the other category represents social issues (Miller and Schofield, 2003).

For this chapter, I will be utilizing a one-dimensional line instead of using a multi-dimensional policy space. This is because the models I am creating are foundational in nature. I intend to build them off of the fundamental models which have shaped the discourse on party competition.

I also assume that there is a uniform distribution of voters on this line. Each party and candidate will take a position  $x$  on  $X$ . The positions that parties in legislative

elections take on line  $X$  will be denoted by  $x_{p1}$ , with  $i$  denoting the party that is taking the given position. The positions that presidential candidates take will be denoted by  $x_{ci}$ . Furthermore, the position of the median voter on the line will be denoted by  $x_m$ . In addition, any slight movement by a party or candidate away from a given position on  $X$  will be denoted by  $\delta$ .

First, the parties and candidates place themselves on  $X$  simultaneously. After that, the voters choose the party or candidate that is closest to them on  $X$ . Parties and candidates attain utility through gaining votes. At the same time, voters have their own utilities in the form of voting for the party or candidate that is most similar to them. Therefore, parties and candidates therefore maximize their utility by winning as many votes as possible, while voters maximize their utility by voting for the party or candidate that is closest to them on  $X$ .

Based on the amount of votes they receive, parties and candidates receive a vote share  $s$ . The proportion of the vote a given party receives in a legislative election is denoted by  $s_{pi}$ . For candidates in a presidential election,  $s_{ci}$  denotes the proportion of the vote the candidate received.

Furthermore, I will assume that voters are policy-oriented, and will vote for the candidate or party that is the closest to their own position. This is the situation for all of the examples in this section. However, the assumption of proximity voting will be relaxed when I turn to modeling legislative elections held under presidential regimes.

Also, the models will be deterministic and not probabilistic. While most of the recent developments in spatial modeling have focused on probabilistic models, it is important to go to the foundational method of spatial modeling. The following models will be the building blocks of understanding presidentialism's effect on legislative party competition. This is so that later on, more advanced modeling practices can better be able to incorporate presidential assumptions into them. The equilibria described in the models are Nash equilibria in pure strategies.

### 3.1 Legislative Elections

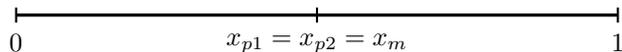


Figure 1: Two-Party Plurality Legislative Elections

The first scenario among legislative elections that will be described are single-member district plurality/majoritarian elections. The assumptions that guide the coordination and exit of candidates for the plurality ballot will be in place here. Therefore, there will be only two effective parties in this election, being parties 1 and 2 (Duverger, 1964). In this type of election, the Nash equilibrium will be  $x_{p1}^* = x_{p2}^* = x_m$ . The vote shares of peach party will be  $s_{p1} = s_{p2}$ . Figure 1 shows this this election in equilibrium.

The next scenario among legislative elections is one that employs a form of proportional representation (PR). Given that PR elections set a lower threshold for parties attaining seats than majoritarian elections do, there are always more than two parties competing in a PR legislative election (Cox, 1997). This means that the potential number of parties competing in a PR election could be infinite. However, for this chapter, only two scenarios will be examined: PR elections with four parties competing, and PR elections where there are three parties competing.



Figure 2: Four-Party Proportional Legislative Elections

In a four-party PR election, assume that there are four parties competing named parties 1, 2, 3, and 4. Given the expectations of party positioning when there are four parties competing in an election, the parties are at Nash equilibrium when  $x_{p1}^* = x_{p2}^* = .25$  and  $x_{p3}^* = x_{p4}^* = .75$ . This is presented in Figure 2. This leads to vote shares of each party of  $s_{p1} = s_{p2} = s_{p3} = s_{p4}$ . This creates a situation with a non-centrist equilibrium, where all of the parties find it beneficial to take positions away from the median voter.

Next, assume that there are three parties competing in a PR legislative election named parties 1, 2, and 3. Unlike the previous scenario, the three party PR election will not have a Nash equilibrium. In this situation, one party will always have an incentive to leapfrog the other two parties, allowing them to attain higher share of the vote. This will cause the one of the other two parties to leapfrog the first party as well, leading to an infinite state of leapfrogging.

The lack of equilibrium in three-party legislative elections only holds when it is assumed the election is occurring under a parliamentary regime. As will be shown later, when the same three-party legislative election occurs under a presidential regime, a Nash equilibrium occurs.

## 3.2 Presidential Elections

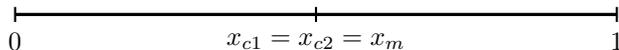


Figure 3: Plurality Presidential Elections

Two types of presidential elections will be modeled. These elections are those that are held by plurality ballot, and those that are held by runoff ballot. First, the equilibrium conditions for presidential elections under the plurality rule will be presented. Under this scenario, the candidate who attains the most votes wins the election. This is regardless of whether or not they won a majority of votes. Given this rule, there will be incentives for the coordination and the exit of unviable candidates, save for two candidates (Duverger, 1964). Therefore, there will be only two effective candidates in this election, named candidates 1 and 2. In this election, the Nash equilibrium will be  $x_{c1}^* = x_{c2}^* = x_m$ , where both candidates where end up in the center of the ideological spectrum. Figure 3 shows the equilibrium for this model.

The difference between plurality and runoff presidential elections is that in runoff elections, presidential candidates have to take into account not only where they will position themselves in the first round, but their position in the second round as well. The assumption being made in this chapter for runoff elections is that once a presidential candidate takes their ideological position in the first round, they will maintain that same position in the second round. Therefore, the position the candidate takes in the first round will determine their vote share of  $s_{ci1}$  in the first round, and  $s_{ci2}$  in the second round.

Two specific types of runoff elections will be discussed. These are three-candidate elections and four-candidate elections. Three-candidate presidential elections are being presented, because, according to Cox (1997), the fewest number of candidates in a runoff election are always three. Four-candidate presidential elections are being looked at because in many runoff elections, the lefts main presidential candidate might face a serious competitor to their left, while simultaneously, the rights main presidential candidate might face a serious competitor to their right. The distinction between the two are important, because three-candidate runoff elections will lead to a centrist Nash equilibrium. All the while, four-candidate runoff elections can lead to not just a centrist Nash equilibrium, but a range of non-centrist Nash equilibria as well.

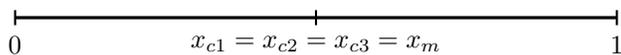


Figure 4: Three-Candidate Runoff Presidential Elections

Figure 4 models competition in a three-candidate presidential election. In this type of election, there will be three candidates named candidates 1, 2, and 3. While the case of three-party legislative elections did not lead to any Nash equilibria, this will not be the case for three-candidate runoff presidential elections. In this type of election, the Nash equilibrium will be  $x_{c1}^* = x_{c2}^* = x_{c3}^* = x_m$ , such that the vote shares of the parties will be  $s_{c11} = s_{c21} = s_{c31} = .33$  and  $s_{c12} = s_{c22} = s_{c32} = .50$  for all possible combinations of match-ups in the second round. Therefore, the three candidates will end up in a centrist position on the ideological spectrum.

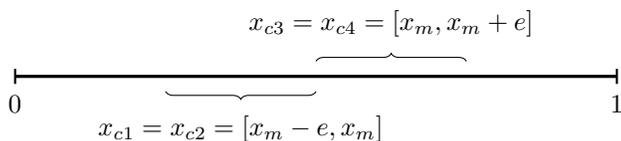


Figure 5: Four-Candidate Runoff Presidential Elections

For four-candidate runoff presidential elections, the candidates are candidates 1, 2, 3, and 4. Figure 5 shows this type of election. In the case of this election, there is Nash equilibria for any positioning of the candidates where  $x_{c1}^* = x_{c2}^* = [x_m - e, x_m]$  and  $x_{c3}^* = x_{c4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$ . There is also Nash equilibria in the situation when  $x_{c1}^* = x_{c3}^* = [x_m - e, x_m]$  and  $x_{c2}^* = x_{c4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$ ; and  $x_{c1}^* = x_{c4}^* = [x_m - e, x_m]$  and  $x_{c2}^* = x_{c3}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$ . These Nash equilibria would lead to vote shares of  $s_{c11} = s_{c21} = s_{c31} = s_{c41} = .25$  and  $s_{c12} = s_{c22} = s_{c32} = s_{c42} = .50$  (for any of the two candidates that advance to the second round).

The equilibria in four-candidate runoff elections can fall anywhere within almost the middle half of the ideological spectrum, allowing for both centrist and non-centrist equilibria. However, the most non-centrist equilibrium is not as non-centrist as the equilibrium in four-party legislative elections. This shows that even when the equilibrium is non-centrist for a runoff presidential election, it will always give incentives for parties in four-party legislative elections to move closer to the median voter.

## 4 Modeling Legislative Elections in a World of Presidentialism

The final portion of this chapter will now show what happens when legislative elections are assumed to be occurring under a presidential regime. Given the varieties of presidential elections (pure presidentialism vs. semi-presidentialism and plurality vs. runoff ballots) and legislative elections (plurality vs. PR ballots), it has to be determined which combination of electoral rules will be modeled. Combinations that will be modeled will be ones which reflect the realities of the universe of presidentialism.

**Table 1 Here**

**Table 2 Here**

As seen in Tables 1 and 2, among both regimes of pure presidentialism and semi-presidentialism, the most common type of electoral system combination is one where the president is elected through a runoff ballot, and the legislature is elected through PR. The only combination that does not occur is a semi-presidential regime where the legislature is elected through PR. However, there is one case of a semi-presidential regime where the legislature is elected through a mixed-member system (Taiwan). For this study though, PR and mixed-member electoral systems will be treated the same, due to the similarities in the numbers of parties produced by both systems.

Before the models are presented, it must be explained how parties in legislative elections will earn votes. The maximum vote share for a legislative party with a presidential candidate can attain in Nash equilibrium is:

$$z = \frac{1}{\textit{number of presidential candidates}}$$

In order to attain this maximum vote share, the party in the legislative election must move to the same position as their presidential candidate. For every  $\delta$  a party's position in the legislative election is away from the position of their counterpart in the presidential election, their vote share is equal to the  $z - \delta$ . This means that parties in legislative elections without a presidential candidate have the potential of not attaining any votes at all.

While  $z$  is the highest vote share a party with a presidential candidate can attain in Nash equilibrium, any party can attain extra votes if another legislative party with

a presidential candidate is not in Nash equilibrium. The formula for any extra votes a party would receive from a party with a presidential candidate being out of Nash equilibrium is:

$$\text{extra votes} = \frac{\delta}{\text{number of parties in election} - 1}$$

The formula for  $z$  makes the assumption that the presidential election is being held concurrent with the legislative election under a pure presidential regime. In further examples in this section, the formula will be modified to account for the weakened strength of coattail effects produced by semi-presidential regimes and non-concurrent elections.

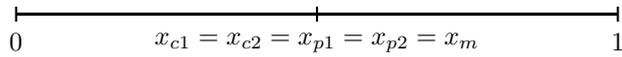


Figure 6: Majoritarian Legislative Election Where the President is Elected by Plurality Vote

Figure 6 shows a majoritarian legislative election held under a presidential regime where the president is elected by plurality vote. If the Nash equilibrium for a plurality presidential election is  $x_{c1}^* = x_{c2}^* = x_m$ , then the Nash equilibrium for a majoritarian presidential election is  $x_{p1}^* = x_{p2}^* = x_m$ . Since the positions of parties 1 and 2 in their equilibrium position are the same as the positions of their respective presidential candidates, they have both automatically earned the maximum vote shares they can attain, being  $s_{p1} = s_{p2} = z$ . Both of the parties in the legislative election will be at a centrist location.

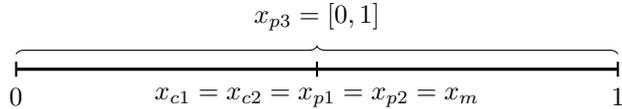


Figure 7: Three-Party Proportional Legislative Election Where the President is Elected by Plurality Vote

The next two examples model PR legislative elections under a regime where the president is elected by plurality vote. The first model will describe competition in a three-party legislative election, while the second model will describe competition in

a four-party legislative election. Figure 7 shows party competition in a three-party legislative election. If the Nash equilibrium for a plurality presidential election is  $x_{c1}^* = x_{c2}^* = x_m$ , then the Nash equilibrium for a three-party PR or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = x_m$ , and any location on  $X$  for party 3 in the legislative election.

Since there are two candidates (candidates 1 and 2) in the presidential election, the maximum vote share parties 1 and 2 can attain in the legislative election is .50 each. As a result, parties 1 and 2 will move respectively to the same positions of candidates 1 and 2. This also means that party 3 will not be able to receive any votes in the legislative election, regardless of where they position themselves. This will lead to vote shares of  $s_{p1} = s_{p2} = z$  and  $s_{p3} = 0$ . In this situation, both of the parties with presidential candidates will be positioned at a centrist location in the legislative election.

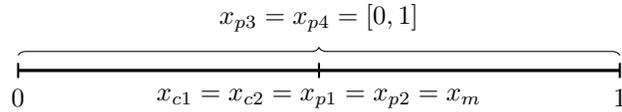


Figure 8: Four-Party Proportional Legislative Election Where the President is Elected by Plurality Vote

If the Nash equilibrium for a plurality presidential election is  $x_{c1}^* = x_{c2}^* = x_m$ , then the Nash equilibrium for a three-party PR or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = x_m$ , and any location on  $X$  for parties 3 and 4. Since there are two candidates (candidates 1 and 2) in the presidential election, the maximum vote share parties 1 and 2 can attain in the legislative election is .50 each. As a result, parties 1 and 2 will move respectively to the same positions of candidates 1 and 2. This also means that parties 3 and 4 will not be able to receive any votes in the legislative election. This is irrespective of where each of them position themselves. This will lead to vote shares of  $s_{p1} = s_{p2} = z$  and  $s_{p3} = s_{p4} = 0$ . In this election, as in the previous example, both of the parties with presidential candidates will be positioned at a centrist location in the legislative election. This election is modeled in Figure 8.

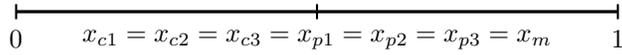


Figure 9: Three-Party Proportional Legislative Election Where the President is Elected by Runoff Vote

The next two examples show three and four-party PR legislative elections as well. However, the difference is that these two elections are occurring under a presidential regime where the president is elected by runoff vote. Figure 9 shows the model for the three-party legislative election. If the Nash equilibrium for a three-candidate runoff presidential election is  $x_{c1}^* = x_{c2}^* = x_{c3}^* = x_m$ , then the Nash equilibrium for a three-party PR or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = x_{p3}^* = x_m$ .

Since there are three candidates (candidates 1, 2, and 3) in the presidential election, the maximum vote share parties 1, 2, and 3 can attain in the legislative election is .333 each. As a result, parties 1, 2, and 3 will move respectively to the same positions of candidates 1, 2, and 3. This will lead to vote shares of  $s_{p1} = s_{p2} = s_{p3} = z$ . In this election, all of the parties will be positioned at a centrist location.

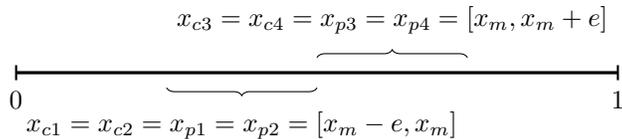


Figure 10: Four-Party Proportional Legislative Election Where the President is Elected by Runoff Vote

Figure 10 shows a four-party PR legislative election. If the Nash equilibrium for a four-candidate runoff presidential election is  $x_{c1}^* = x_{c2}^* = [x_m - e, x_m]$  and  $x_{c3}^* = x_{c4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$ , then the Nash equilibrium for a four-party proportional or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = [x_m - e, x_m]$  and  $x_{p3}^* = x_{p4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$ . This is conditional on  $x_{p1} = x_{c1}$ ,  $x_{p2} = x_{c2}$ ,  $x_{p3} = x_{c3}$ , and  $x_{p4} = x_{c4}$ .

Since there are four candidates (candidates 1, 2, 3, and 4) in the presidential election, the maximum vote share parties 1, 2, 3, and 4 can attain in the legislative election is .25 each. As a result, parties 1, 2, 3, and 4 will move respectively to the position of candidates 1, 2, 3, and 4. This will lead to vote shares that are

$s_{p1} = s_{p2} = s_{p3} = s_{p4} = z$ . In this situation, all of the parties in the legislative election have the potential of being positioned anywhere from a centrist to a non-centrist location, conditional on the positions of each party's presidential candidate.

## 4.1 Semi-Presidentialism

I have now shown how parties position themselves in legislative elections that are held under pure presidential regimes. The next few scenarios will look at the same legislative elections, but will instead make the assumption that the legislative elections are being held under a semi-presidential regime.

It is important to model semi-presidential regimes separate from pure presidential regimes. This is because of the institutional nature of semi-presidentialism. In semi-presidential regimes, presidents are typically weaker in terms of institutional powers. As a result, the coattail effects will not be as strong in semi-presidential regimes as they are in pure presidential regimes. This means the maximum vote share a party can receive in the legislative election will be smaller too, compared to similar parties under a pure presidential regime. In other words, a legislative party can benefit by getting closer to their presidential candidate only up to a certain point.

In semi-presidential regimes, parties in legislative elections stop receiving a coattail advantage once they are at a position around their presidential candidate at a range of .125. In other words, the parties with presidential candidates can be anywhere within 0.0625 to the left or 0.0625 to the right of the position of their presidential candidate to attain the maximum vote share in the legislative election.

While parties in the legislative election who have candidates running in the presidential election can move closer to their respective candidate, it will not yield them any extra votes. However, they still must be within a distance of 0.0625 from their party's presidential candidate in order to attain the maximum vote share that is possible for them in the legislative election. Therefore the maximum vote share that a legislative party with a respective presidential candidate can attain in Nash equilibrium in semi-presidential regimes is:

$$z = \frac{.875}{\text{number of presidential candidates}}$$

As will be shown, this rule will not apply in cases where all of the legislative parties have candidates in the presidential election. If the number of candidates in the

presidential election equal the number of candidates in the legislative election, then the maximum vote share each party would attain in Nash equilibrium will be:

$$z = \frac{1}{\text{number of presidential candidates}}$$

The specific value of .125 is used for tractability purposes in the model. This is so the equilibria in the models remain relatively centrist as compared to similar elections that are not held under a presidential regime. This allows me to keep the models in line with my theoretical expectations of the equilibria under different institutional arrangements. Furthermore, the empirical results of real-world cases in the next chapter will keep in line with these equilibria, which are based off of this value.

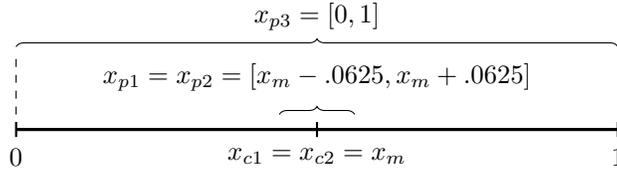


Figure 11: Three-Party Proportional Legislative Election in a Semi-Presidential Regime Where the President is Elected by Plurality Vote

Figure 11 shows a three-party legislative PR election held under a semi-presidential regime where the president is elected by plurality ballot. If the Nash equilibrium for a plurality semi-presidential election is  $x_{c1}^* = x_{c2}^* = x_m$ , then the Nash equilibrium for a three-party proportional or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = [x_m - .0625, x_m + .0625]$ , and any position on  $X$  for party 3.

Since there are two candidates in the presidential election (candidates 1 and 2), the maximum vote share parties 1 and 2 can receive is .4375 each. Conversely, the minimum vote share party 3 can receive is .125. In Nash equilibrium, this would lead to vote shares of  $s_{p1} = s_{p2} = z$  and  $s_{p3} = .125$ . In this scenario, the two legislative parties with presidential candidates can take a range of positions at or close to the location of the median voter. This will lead to either centrist or slightly non-centrist equilibria.

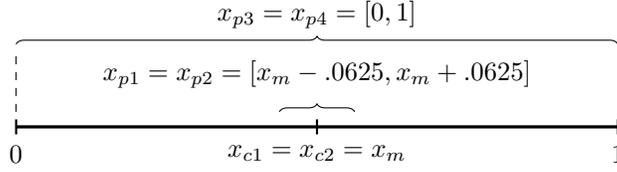


Figure 12: Four-Party Proportional Legislative Election in a Semi-Presidential Regime Where the President is Elected by Plurality Vote

If the Nash equilibrium for a plurality semi-presidential election is  $x_{c1}^* = x_{c2}^* = x_m$  for the presidential election, then the Nash equilibrium for a four-party proportional or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = [x_m - .0625, x_m + .0625]$ , and any position on  $X$  for parties 3 and 4.

Since there are two candidates in the presidential election (candidates 1 and 2), the maximum vote share parties 1 and 2 can receive is .4375 each. Conversely, the minimum vote share parties 3 and 4 can receive is .0625 each. In Nash equilibrium, this would lead to vote shares of  $s_{p1} = s_{p2} = z$  and  $s_{p3} = s_{p4} = .0625$ . In this election, the two parties with presidential candidates can take a range of positions in the legislative election at or close to the location of the median voter. This can lead to either centrist or slightly non-centrist equilibria. Figure 12 shows the equilibria in this model.

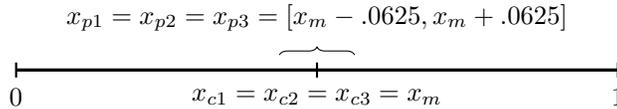


Figure 13: Three-Party Proportional Legislative Election in a Semi-Presidential Regime Where the President is Elected by Runoff Vote

Figure 13 shows the model for a three-party legislative PR election held under a semi-presidential regime where the president is elected by runoff vote. If the Nash equilibrium for a three-candidate runoff semi-presidential election is  $x_{c1}^* = x_{c2}^* = x_{c3}^* = x_m$  for the presidential election, then the Nash equilibrium for a three-party proportional or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = x_{p3}^* = [x_m - .0625, x_m + .0625]$ .

Since there are three candidates in the presidential election (candidates 1, 2, and 3), the maximum vote share parties 1, 2, and 3 can receive is .333 each. In any Nash



each other. .1 indicates that the presidential and legislative elections are as far apart from each other as possible. This will mean that the maximum vote share that a legislative party with a presidential candidate can attain in Nash equilibrium is:

$$z = \frac{1 - t}{\text{number of presidential candidates}}$$

For semi-presidential regimes, the maximum vote share of legislative parties with presidential candidates in Nash equilibrium will be:

$$z = \frac{.875 - t}{\text{number of presidential candidates}}$$

Once again, if the number of presidential candidates and legislative parties are equal, this rule will not apply. All of the following models assume that  $t = .1$ .

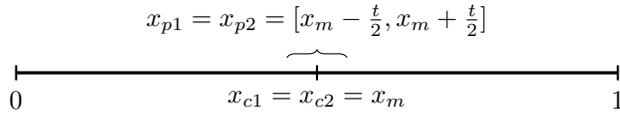


Figure 15: Non-Concurrent Majoritarian Legislative Election in Presidential Regime Where the President is Elected by Plurality Vote

If the Nash equilibrium for a plurality presidential election is  $x_{c1}^* = x_{c2}^* = x_m$ , then the Nash equilibrium for a non-concurrent majoritarian legislative election is  $x_{p1}^* = x_{p2}^* = [x_m - \frac{t}{2}, x_m + \frac{t}{2}]$ . Since there are two candidates in the presidential election (candidates 1, and 2), the maximum vote share parties 1 and 2 can receive is .50 each. This would lead to vote shares of  $s_{p1} = s_{p2} = z$ . In this election, both parties can take a range of positions in the legislative election at or close to the location of the median voter. This will lead to either centrist or slightly non-centrist equilibria. Figure 15 displays the equilibria for the election.

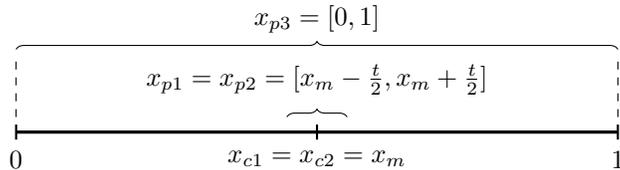


Figure 16: Non-Concurrent Three-Party Proportional Legislative Election in Presidential Regime Where the President is Elected by Plurality Vote

Figure 16 shows a non-concurrent three-party PR election occurring under a presidential regime where the president is elected by plurality vote. If the Nash equilibrium for a plurality presidential election is  $x_{c1}^* = x_{c2}^* = x_m$ , then the Nash equilibrium for a non-concurrent, three-party PR or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = [x_m - \frac{t}{2}, x_m + \frac{t}{2}]$  and any position on  $X$  for party 3. Since there are two candidates in the presidential election (candidates 1, and 2), the maximum vote share parties 1 and 2 can receive is  $.50 - \frac{t}{2}$  each. Conversely, the minimum vote share party 3 can receive is  $t$ . This would lead to vote shares of  $s_{p1} = s_{p2} = z$  and  $s_{p3} = t$ . In this election, the two parties in the legislative election with presidential candidates can take a range of positions at or close to the location of the median voter. This leads to either centrist or slightly non-centrist equilibria.

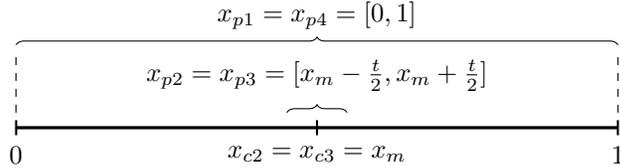


Figure 17: Non-Concurrent Four-Party Proportional Legislative Election in Presidential Regime Where the President is Elected by Plurality Vote

If the Nash equilibrium for a plurality presidential election is  $x_{c1}^* = x_{c2}^* = x_m$ , then the Nash equilibrium for a non-concurrent, four-party PR or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = [x_m - \frac{t}{2}, x_m + \frac{t}{2}]$  and any position on  $X$  for parties 3 and 4. Since there are two candidates in the presidential election (candidates 1, and 2), the maximum vote share parties 1 and 2 can receive is  $.50 - \frac{t}{2}$  each. Conversely, the minimum vote share parties 3 and 4 can receive is  $\frac{t}{2}$  each. This would lead to vote shares of  $s_{p1} = s_{p2} = z$  and  $s_{p3} = \frac{t}{2}$ . In this election, the two parties in the legislative election with presidential candidates can take a range of positions at or close to the location of the median voter. This leads to either centrist or slightly non-centrist equilibria. Figure 17 shows the equilibria in this election.

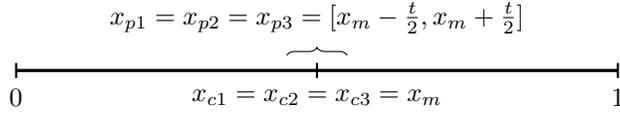


Figure 18: Non-Concurrent Three-Party Proportional Legislative Election in Presidential Regime Where the President is Elected by Runoff Vote

If the Nash equilibrium for a three-candidate runoff presidential election is  $x_{c1} = x_{c2} = x_{c3} = x_m$ , then the Nash equilibrium for a non-concurrent, three-party PR or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = x_{p3}^* = [x_m - \frac{t}{2}, x_m + \frac{t}{2}]$ . Since there are three candidates (candidates 1, 2, and 3) in the presidential election, the maximum vote share parties 1, 2, and 3 can attain in Nash equilibrium in the legislative election is .333 each. This will lead to vote shares of  $s_{p1} = s_{p2} = s_{p3} = z$ . In this election, all of the parties in the legislative election can take a range of positions at or close to the location of the median voter. This will lead to either centrist or slightly non-centrist equilibria. Figure 18 displays the model for this election.

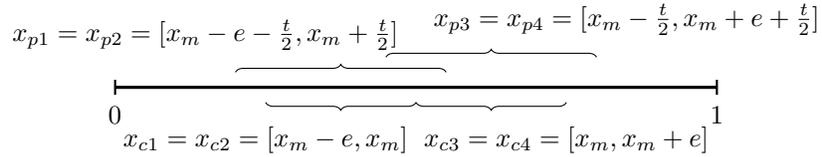


Figure 19: Non-Concurrent Four-Party Proportional Legislative Election in Presidential Regime Where the President is Elected by Runoff Vote

Figure 19 shows a non-concurrent four-party PR legislative election under a presidential regime where the president is elected by runoff vote. If the Nash equilibrium for a four-candidate runoff presidential election is  $x_{c1}^* = x_{c2}^* = [x_m - e, x_m]$  and  $x_{c3}^* = x_{c4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$ , then the Nash equilibrium for a non-concurrent, four-party PR or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = [x_m - e - \frac{t}{2}, x_m + \frac{t}{2}]$  and  $x_{p3}^* = x_{p4}^* = [x_m - \frac{t}{2}, x_m + e + \frac{t}{2}]$ .

Since there are four candidates (candidates 1, 2, 3, and 4) in the presidential election, the maximum vote share parties 1, 2, 3, and 4 can attain in the legislative election is .25 each. This would lead to vote shares of  $s_{p1} = s_{p2} = s_{p3} = s_{p4} = z$ . In this election, all of the parties can take a range of positions in the legislative election at or close to

the location of their respective presidential candidates. This will result in a range of equilibria that can be either centrist or non-centrist.

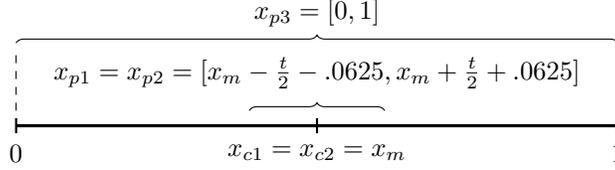


Figure 20: Non-Concurrent Three-Party Proportional Legislative Election in Semi-Presidential Regime Where the President is Elected by Plurality Vote

If the Nash equilibrium for a plurality semi-presidential election is  $x_{c1}^* = x_{c2}^* = x_m$ , then the Nash equilibrium for a non-concurrent, three-party PR or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = [x_m - \frac{t}{2} - .0625, x_m + \frac{t}{2} + .0625]$ , and any position on  $X$  for party 3.

Since there are two candidates in the presidential election (candidates 1 and 2), the maximum vote share parties 1 and 2 can receive is  $.4375 - \frac{t}{2}$  each. Conversely, the minimum vote share party 3 can receive is  $.125 + t$ . In Nash equilibrium, this would lead to vote shares of  $s_{p1} = s_{p2} = z$  and  $s_{p3} = .125 + t$ . In this election, both of the parties in the legislative election with presidential candidates can take a range of positions in the legislative election at or close to the location of the median voter. This will lead to either centrist or slightly non-centrist equilibria. Figure 20 displays the equilibria for this election.

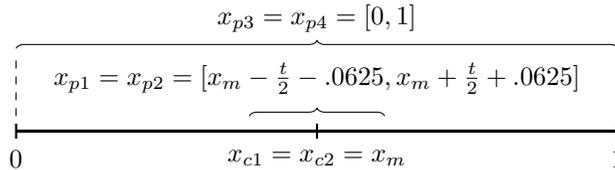


Figure 21: Non-Concurrent Four-Party Proportional Legislative Election in Semi-Presidential Regime Where the President is Elected by Plurality Vote

If the Nash equilibrium for a plurality semi-presidential election is  $x_{c1}^* = x_{c2}^* = x_m$ , then the Nash equilibrium for a non-concurrent, four-party PR or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = [x_m - \frac{t}{2} - .0625, x_m + \frac{t}{2} + .0625]$ , and any position on  $X$  for parties 3 and 4. Since there are two candidates in the presidential election

(candidates 1 and 2), the maximum vote share parties 1 and 2 can receive is  $.4375 - \frac{t}{2}$  each. Conversely, the minimum vote share parties 3 and 4 can receive is  $.0625 + \frac{t}{2}$  each. This would lead to vote shares of  $s_{p1} = s_{p2} = z$  and  $s_{p3} = s_{p4} = .0625 + \frac{t}{2}$ . In this election, both of the parties in the legislative election with presidential candidates can take a range of positions at or close to the location of the median voter. This leads to either centrist or slightly non-centrist equilibria. Figure 21 shows the equilibria for this election.

$$x_{p1} = x_{p2} = x_{p3} = [x_m - \frac{t}{2} - .0625, x_m + \frac{t}{2} + .0625]$$

Figure 22: Non-Concurrent Three-Party Proportional Legislative Election in Semi-Presidential Regime Where the President is Elected by Runoff Vote

If the Nash equilibrium for a three-candidate runoff semi-presidential election is  $x_{c1} = x_{c2} = x_{c3} = x_m$ , then the Nash equilibrium for a non-concurrent, three-party PR or mixed-member legislative election is  $x_{p1}^* = x_{p2}^* = x_{p3}^* = [x_m - \frac{t}{2} - .0625, x_m + \frac{t}{2} + .0625]$ . Since there are three candidates in the presidential election (candidates 1, 2, and 3), the maximum vote share parties 1, 2, and 3 can receive is .333 each. In Nash equilibrium, this would lead to vote shares of  $s_{p1} = s_{p2} = s_{p3} = z$ . In this election, all of the parties in the legislative election can take a range of positions in the legislative election at or close to the location of the median voter. This will lead to either centrist, or slightly non-centrist equilibria. Figure 22 shows the equilibria for this election.

$$x_{p1} = x_{p2} = [x_m - e - .0625 - \frac{t}{2}, x_m + .0625 + \frac{t}{2}] \quad x_{p3} = x_{p4} = [x_m - .0625 - \frac{t}{2}, x_m + e + .0625 + \frac{t}{2}]$$

Figure 23: Non-Concurrent Four-Party Proportional Legislative Election in Semi-Presidential Regime Where the President is Elected by Runoff Vote

If the Nash equilibrium for a four-candidate runoff semi-presidential election is  $x_{c1}^* = x_{c2}^* = [x_m - e, x_m]$  and  $x_{c3}^* = x_{c4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$ , then the Nash equilibrium for a non-concurrent, four-party PR or mixed-member legislative

election is  $x_{p1}^* = x_{p2}^* = [x_m - e - \frac{t}{2}, x_m + .0625 + \frac{t}{2}]$ , and  $x_{p3}^* = x_{p4}^* = [x_m - \frac{t}{2}, x_m + e + .0625 + \frac{t}{2}]$ . Since there are four candidates in the presidential election (candidates 1, 2, 3, and 4), the maximum vote share parties 1, 2, 3, and 4 can receive is .25 each. This would lead to vote shares that are  $s_{p1} = s_{p2} = s_{p3} = s_{p4} = z$ . In this election, all of the parties can take a range of positions in the legislative election at or close to the location of their respective presidential candidates. This leads to a range of equilibria that can be either centrist or non-centrist. Figure 23 shows the equilibria for this election.

## 5 Conclusion

This chapter has provided the theoretical explanation for how presidentialism affects political party competition in legislative elections. The review of literature showed that previous research has failed to provide an explanation to competition in these settings. This is because previous models have assumed legislative party competition is occurring under a parliamentary regime. However, in presidential regimes, legislative elections partly become functions of presidential elections. This is due to the coattail effects produced by presidential elections. When the same legislative election is occurring under a presidential regime, the equilibrium will be more centrist than it is than under a parliamentary regime.

The extent to which these equilibria will be centrist depends on two factors. The first is the institutional power of the president, and the second timing between the presidential and legislative elections. In non-concurrent legislative elections held under a semi-presidential regime, the main parties will be less centrist than comparable parties in concurrent legislative elections held under a pure presidential regime.

The next chapter will test the theoretical claims made in this chapter, through using empirical data on the positions of political parties throughout numerous democracies across time. The results in the next chapter will be in line with these theoretical expectations. That is, the main parties in presidential regimes will significantly be closer to the each other and the median voter than the main parties in parliamentary regimes.

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## Appendix

	Plurality	Runoff
Majoritarian	3	3
Proportional	7	15

Table 1: Combinations of Electoral Systems Used in Presidential and Legislative Elections in Pure Presidential Regimes

	Plurality	Runoff
Majoritarian	2	2
Proportional	1	21

Table 2: Combinations of Electoral Systems Used in Presidential and Legislative Elections in Semi-Presidential Regimes

## Legislative Plurality Election

**Theorem:** The Nash equilibrium will be  $x_{p1}^* = x_{p2}^* = x_m$ , leading to vote shares that are  $s_{p1} = s_{p2} = .5$ .

**Proof:** If party 1 moved to  $x_m + \delta$  then the vote share of party 1 would be  $s_{p1} < s_{p2}$ .

## Legislative Proportional Four-Party Election

**Theorem:** The parties are at Nash equilibrium when  $x_{p1}^* = x_{p2}^* = .25$  and  $x_{p3}^* = x_{p4}^* = .75$ . This leads to vote shares that are  $s_{p1} = s_{p2} = s_{p3} = s_{p4}$ .

**Proof:** If the parties are located at  $x_{p1}^* = x_{p2}^* = .25$  and  $x_{p3}^* = x_{p4}^* = .75$ , and party 2 decides to move to  $x_{p2} = .25 + \delta$ , then party 2 would have a vote share that is  $s_{p2} < s_{p1}$ ,  $s_{p2} < s_{p3}$ , and  $s_{p2} < s_{p4}$ .

## Legislative Proportional Three-Party Election

If the parties are at  $x_{p1} = x_{p2} = x_{p3} = x_m$ , the vote shares of the parties would be  $s_{p1} = s_{p2} = s_{p3}$ . While the vote shares are equal In this situation, party 1 could move to  $x_m + \delta$ , and then take all of the votes to the right of that location. This would then make the parties vote shares  $s_{p1} > s_{p2} = s_{p3}$ . Party 2 would move to a position slightly right of  $x_m + \delta$ , such that  $x_{p2} = x_m + 2\delta$ . This would take away the vote share party 1 attained, giving the parties vote shares of  $s_{p3} > s_{p2} > s_{p1}$ . This would now induce either parties 1 or 2 to leapfrog party 3 to the left, resulting in a cycle where all three parties keep leapfrogging each other. The parties would therefore not settle into a Nash equilibrium.

## Presidential Plurality Election

**Theorem:** The Nash equilibrium will be  $x_{c1}^* = x_{c2}^* = x_m$ , leading to vote shares that are  $s_{c1} = s_{c2} = .5$ .

**Proof:** If candidate 1 moved to  $x_m - \delta$  then the vote share of candidate 1 would be  $s_{p1} < s_{p2}$ .

## Three-Candidate Presidential Runoff Election

**Theorem:** The Nash equilibrium will be  $x_{c1}^* = x_{c2}^* = x_{c3}^* = x_m$ , such that the vote shares of the candidates will be  $s_{c11} = s_{c21} = s_{c31} = .33$  and  $s_{c12} = s_{c22} = s_{c32} = .5$  for all possible combinations of match-ups in the second round.

**Proof:** For example, if candidate 1 decided to move to  $x_{c1} = x_m + \delta$  the new vote shares would be  $s_{c11} > s_{c21} = s_{c31}$ , guaranteeing that candidate 1 will advance to the second round. However, this would mean that if candidate 1 faced either candidate 2 or candidate 3 in the second round, candidate 1s vote share would be  $s_{c12} < s_{c22}$  or  $s_{c12} < s_{c32}$ . This would mean that candidate 1 would lose in the second round, despite getting the most votes in the first round.

## Four-Candidate Presidential Runoff Election

**Theorem:** There is Nash equilibria for any positioning of the candidates where  $x_{c1}^* = x_{c2}^* = [x_m - e, x_m]$  and  $x_{c3}^* = x_{c4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$ . There is also Nash equilibria in the situation when  $x_{c1}^* = x_{c3}^* = [x_m - e, x_m]$  and  $x_{c2}^* = x_{c4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$ ; and  $x_{c1}^* = x_{c4}^* = [x_m - e, x_m]$  and  $x_{c2}^* = x_{c3}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$ . These Nash equilibria would lead to vote shares of  $s_{c11} = s_{c21} = s_{c31} = s_{c41} = .25$  for the first round and  $s_{c12} = s_{c22} = s_{c32} = s_{c42} = .50$  (for any of the two candidates that advance to the second round).

**Proof:** If  $x_{c1} = x_{c2} = x_{c3} = x_{c4} = x_m$ , then the vote shares for round 1 would be  $s_{c11} = s_{c21} = s_{c31} = s_{c41} = .25$  and  $s_{c12} = s_{c22} = s_{c32} = s_{c42} = .50$  (for any of the two candidates that advance to the second round). However, if candidate 1 decided to move to  $x_{c1} = x_m + \delta$ , then their vote share for round 1 would be  $s_{c11} > s_{c21} = s_{c31} = s_{c41}$ , guaranteeing candidate 1 a place in the second round against either candidate 2, 3, or 4. However, since candidate 1 is at  $x_{c1} = x_m + \delta$ , while candidates 2, 3, and 4 are still at  $x_{c2} = x_{c3} = x_{c4} = x_m$ , candidate 1 would lose in the second round of the election with a vote share of  $s_{c12} < s_{c22} = s_{c32} = s_{c42}$ .

In addition,  $x_{c1} = x_{c2} = .333$  and  $x_{c3} = x_{c4} = .667$ , with vote shares of  $s_{c11} = s_{c21} = s_{c31} = s_{c41} = .25$  for the first round and  $s_{c12} = s_{c22} = s_{c32} = s_{c42} = .50$  (for any of the two candidates that advance to the second round), is a Nash equilibrium as well. If candidate 1 moved to  $x_{c1} = .666$ , they would receive vote shares that are

$s_{c11} < s_{c31} = s_{c41} < s_{c21}$ . In this scenario though, candidate 1 would fail to receive enough votes to advance to the second round. At the same time, candidate 2 and either candidates 3 and 4 would advance to the second round, and would tie in the second round of the election with vote shares of  $s_{c22} = s_{c32} = s_{c42}$ .

## Majoritarian Legislative Election under a Presidential Regime Where the President is Elected by Plurality Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = x_m$  for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = z$ .

**Proof:** For example, if party 1 moved to  $x_m - \delta$ , then the vote shares of parties would be  $s_{p1} = z - \delta$  and  $s_{p2} = z + \delta$ .

## Three-Party Proportional Legislative Election under a Presidential Regime Where the President is Elected by Plurality Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = x_m$  and any position on  $X$  for party 3 for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = z$  and  $s_{p3} = 0$ .

**Proof:** For example, if party 1 moved to  $x_m - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = z + \frac{\delta}{2}$ , and  $s_{p3} = \frac{\delta}{2}$ .

## Four-Party Proportional Legislative Election under a Presidential Regime Where the President is Elected by Plurality Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = x_m$  and any position on  $X$  for parties 3 and 4 for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = z$  and  $s_{p3} = s_{p4} = 0$ .

**Proof:** For example, if party 1 moved to  $x_m - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = z + \frac{\delta}{3}$ ,  $s_{p3} = \frac{\delta}{3}$ , and  $s_{p4} = \frac{\delta}{3}$ .

### Three-Party Proportional Legislative Election under a Presidential Regime Where the President is Elected by Runoff Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_{c3}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = x_{p3}^* = x_m$  for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = s_{p3} = z$ .

**Proof:** For example, if party 1 moved to  $x_m - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = s_{p3} = z + \frac{\delta}{2}$ .

### Four-Party Proportional Legislative Election under a Presidential Regime Where the President is Elected by Runoff Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = [x_m - e, x_m]$  and  $x_{c3}^* = x_{c4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = [x_m - e, x_m]$  and  $x_{p3}^* = x_{p4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$  for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = s_{p3} = s_{p4} = z$ .

**Proof:** For example, if party 1 moved to  $x_m - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = s_{p3} = s_{p4} = z + \frac{\delta}{3}$ .

### Three-Party Proportional Legislative Election under a Semi-Presidential Regime Where the President is Elected by Plurality Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = [x_m - .0625, x_m + .0625]$  and any position on  $X$  for party 3 for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = z$  and  $s_{p3} = .125$ .

**Proof:** For example, if party 1 moved to  $x_m - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = z + \frac{\delta}{2}$ , and  $s_{p3} = .125 + \frac{\delta}{2}$ .

## Four-Party Proportional Legislative Election under a Semi-Presidential Regime Where the President is Elected by Plurality Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = [x_m - .0625, x_m + .0625]$  and any position on  $X$  for parties 3 and 4 for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = z$  and  $s_{p3} = s_{p4} = .0625$ .

**Proof:** For example, if party 1 moved to  $x_m - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = z + \frac{\delta}{3}$ , and  $s_{p3} = s_{p4} = .0625 + \frac{\delta}{3}$ .

## Three-Party Proportional Legislative Election under a Semi-Presidential Regime Where the President is Elected by Runoff Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_{c3}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = x_{p3}^* = [x_m - .0625, x_m + .0625]$  for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = s_{p3} = z$ .

**Proof:** For example, if party 1 moved to  $[x_m - .0625, x_m + .0625] - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = s_{p3} = z + \frac{\delta}{2}$ .

## Four-Party Proportional Legislative Election under a Semi-Presidential Regime Where the President is Elected by Runoff Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = [x_m - e, x_m]$  and  $x_{c3}^* = x_{c4}^* = [x_m, x_m + e]$ , where  $e = [0, .25]$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = [x_m - e - .0625, x_m + .0625]$ , and  $x_{p3}^* = x_{p4}^* = [x_m - .0625, x_m + e + .0625]$ , where  $e = [0, .25]$  for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = s_{p3} = s_{p4} = z$ .

**Proof:** For example, if party 1 moved to  $[x_m - .0625, x_m + .0625] - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = s_{p3} = s_{p4} = z + \frac{\delta}{3}$ .

## Non-Concurrent Majoritarian Legislative Election under a Presidential Regime Where the President is Elected by Plurality Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = [x_m - \frac{t}{2}, x_m + \frac{t}{2}]$  for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = z$ .

**Proof:** For example, if party 1 moved to  $[x_m - \frac{t}{2}, x_m + \frac{t}{2}] - \delta$ , then the vote shares of parties would be  $s_{p1} = z - \delta$  and  $s_{p2} = z + \delta$ .

## Non-Concurrent Three-Party Proportional Legislative Election under a Presidential Regime Where the President is Elected by Plurality Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = [x_m - \frac{t}{2}, x_m + \frac{t}{2}]$  and any position on  $X$  for party 3 for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = z$  and  $s_{p3} = t$ .

**Proof:** For example, if party 1 moved to  $[x_m - \frac{t}{2}, x_m + \frac{t}{2}] - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = z + \frac{\delta}{2}$ , and  $s_{p3} = t + \frac{\delta}{2}$ .

## Non-Concurrent Four-Party Proportional Legislative Election under a Presidential Regime Where the President is Elected by Plurality Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = [x_m - \frac{t}{2}, x_m + \frac{t}{2}]$  and any position on  $X$  for parties 3 and 4 for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = z$  and  $s_{p3} = \frac{t}{2}$ .

**Proof:** For example, if party 1 moved to  $[x_m - \frac{t}{2}, x_m + \frac{t}{2}] - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = z + \frac{\delta}{3}$ ,  $s_{p3} = \frac{t}{2} + \frac{\delta}{3}$ , and  $s_{p4} = \frac{t}{2} + \frac{\delta}{3}$ .

## Non-Concurrent Three-Party Proportional Legislative Election under a Presidential Regime Where the President is Elected by Runoff Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_{c3}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = x_{p3}^* = [x_m - \frac{t}{2}, x_m + \frac{t}{2}]$  for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = s_{p3} = z$ .

**Proof:** For example, if party 1 moved to  $[x_m - \frac{t}{2}, x_m + \frac{t}{2}] - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = s_{p3} = z + \frac{\delta}{2}$

## Non-Concurrent Four-Party Proportional Legislative Election under a Presidential Regime Where the President is Elected by Runoff Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = [x_m - e, x_m]$  and  $x_{c3}^* = x_{c4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = [x_m - e - \frac{t}{2}, x_m + \frac{t}{2}]$  and  $x_{p3}^* = x_{p4}^* = [x_m - \frac{t}{2}, x_m + e + \frac{t}{2}]$ , where  $e = [0, .25)$  for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = s_{p3} = s_{p4} = z$ .

**Proof:** For example, if party 1 moved to  $[x_m - e - \frac{t}{2}, x_m + \frac{t}{2}] - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = s_{p3} = s_{p4} = z + \frac{\delta}{3}$ .

## Non-Concurrent Three-Party Proportional Legislative Election under a Semi-Presidential Regime Where the President is Elected by Plurality Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = [x_m - \frac{t}{2} - .0625, x_m + \frac{t}{2} + .0625]$  and any position on  $X$  for party 3 for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = z$  and  $s_{p3} = .125 + t$ .

**Proof:** For example, if party 1 moved to  $x_m - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = z + \frac{\delta}{2}$ , and  $s_{p3} = .125 + t + \frac{\delta}{2}$ .

## Non-Concurrent Four-Party Proportional Legislative Election under a Semi-Presidential Regime Where the President is Elected by Plurality Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = [x_m - \frac{t}{2} - .0625, x_m + \frac{t}{2} + .0625]$  and any position on  $X$  for parties 3 and 4 for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = z$  and  $s_{p3} = s_{p4} = .0625 + \frac{t}{2}$ .

**Proof:** For example, if party 1 moved to  $[x_m - \frac{t}{2} - .0625, x_m + \frac{t}{2} + .0625] - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = z + \frac{\delta}{3}$ , and  $s_{p3} = s_{p4} = .0625 + \frac{t}{2} + \frac{\delta}{3}$ .

## Three-Party Proportional Legislative Election under a Semi-Presidential Regime Where the President is Elected by Runoff Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = x_{c3}^* = x_m$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = x_{p3}^* = [x_m - \frac{t}{2} - .0625, x_m + \frac{t}{2} + .0625]$  for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = s_{p3} = z$ .

**Proof:** For example, if party 1 moved to  $[x_m - \frac{t}{2} - .0625, x_m + \frac{t}{2} + .0625] - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = s_{p3} = z + \frac{\delta}{2}$ .

## Four-Party Proportional Legislative Election under a Semi-Presidential Regime Where the President is Elected by Runoff Vote

**Theorem:** If  $x_{c1}^* = x_{c2}^* = [x_m - e, x_m]$  and  $x_{c3}^* = x_{c4}^* = [x_m, x_m + e]$ , where  $e = [0, .25)$  for the presidential election, then  $x_{p1}^* = x_{p2}^* = [x_m - e - \frac{t}{2}, x_m + \frac{t}{2}]$ , and  $x_{p3}^* = x_{p4}^* = [x_m - \frac{t}{2}, x_m + e + \frac{t}{2}]$ , where  $e = [0, .25)$  for the legislative election. This will lead to vote shares that are  $s_{p1} = s_{p2} = s_{p3} = s_{p4} = z$ .

**Proof:** For example, if party 1 moved to  $[x_m - e - \frac{t}{2}, x_m + \frac{t}{2}] - \delta$ , then the vote shares of the parties would be  $s_{p1} = z - \delta$ ,  $s_{p2} = s_{p3} = s_{p4} = z + \frac{\delta}{3}$ .

# Empirically Testing Presidentialism's Effect on Party Competition

Shaun Williams-Wyche

The previous chapter has exhibited that when party competition is modeled within the concept of presidentialism, legislative parties with presidential candidates have vote-gaining incentives to move towards the location of their presidential candidate. Simultaneously, this means that legislative parties are moving toward the center of the party system. The purpose of this chapter is to empirically prove that parties in presidential regimes exhibit centrist tendencies more than parties in parliamentary regimes.

Using data from the Comparative Manifestos Project and the Median Voter Dataset, I show that major parties on the left and the right in presidential regimes are ideologically closer to each other and the median voter in legislative elections than similar parties in parliamentary regimes. In addition, I demonstrate that the timing between legislative and presidential elections affects the placement of parties in legislative election.

Specifically, major parties on the left and the right will be ideologically closer to each other and to the median voter when the legislative election is concurrent with the presidential election. Conversely, major parties on the left and the right will be ideologically further apart from each other and the median voter when the legislative election is not concurrent with the presidential election.

These findings are important, because standard accounts of spatial competition show that parties in elections that use proportional representation or are otherwise multi-party systems position themselves in a non-centrist fashion. I show that this result holds only when the election in question occurs in a parliamentary regime. However, in presidential regimes, parties will place themselves in a centrist fashion regardless of the electoral system.

First, I will show how bringing in presidentialism has already contributed to a

clearer understanding of legislative party systems. Building off of this literature, I explain that presidentialism can also help us better understand party competition in legislative election. Next, the data that is used for this study will be discussed; along with the methodology used to test the theory. This will be followed with the presentation of the results, which will also include selected real-world examples. This will provide an up-close perspective to presidentialism's effects on party competition, which complements the cross-national analysis that is the focus of this study. Finally, conclusions and limitations to the study (along with avenues for potential future research) will be discussed.

## 1 Background

As demonstrated in the previous chapter, a party's electoral success in a legislative election is determined by their ideological position relative to that of their presidential candidate. This is because of the coattail effects that presidential elections have over legislative elections in a presidential regime.

The coattail effects cause the presidential election to be judged more important by both parties and voters. As a result, most of the attention is given towards these elections, at the expense of the legislative election. In order to garner attention and resources, legislative parties will modify their own campaigns to be more in line with that of their presidential candidate. This includes making their ideological position resemble that of their presidential candidate's. Since the presidential election is the most important election in a country, voters will gauge legislative parties' positions based on the positions of presidential candidates.

As mentioned in the last chapter, previous research has shown that presidential elections affect the size and fragmentation of a country's legislative party system (Jones, 1994; ?; Mainwaring and Shugart, 1997; Samuels, 2002; Mozaffar et al., 2003; Golder, 2006; Hicken and Stoll, 2011). This research has focused on how variations within presidentialism can affect these outcomes. More specifically, on how both the ballot method of presidential elections and the timing between presidential and legislative elections affect the party system. Presidential regimes with plurality presidential elections and concurrent elections are more likely to have a smaller number of parties in legislative elections. This is compared to presidential regimes with runoff presidential elections and non-concurrent elections (Golder, 2006).

It can be expected that these two factors will also have an effect on where parties decide to ideologically place themselves in legislative elections. Specifically, when a legislative election is held concurrently with a presidential election, parties will be more centripetal in the legislative election. Conversely, when the same legislative election is non-concurrent with the presidential election, the parties will be more centrifugal. Also, when a country elects its president with a plurality ballot, the parties will be more centripetal in the legislative election. However, when a country elects its president with a runoff ballot, the parties will be more centrifugal in the legislative election. The expected hypotheses based on the theory can be given as follows:

**H1:** In countries where the head of state is directly elected, the main parties will be ideologically closer to each other and the median voter than the main parties in regimes where the head of state is not elected.

**H2:** Among regimes in which the head of state is directly elected, the main parties will be ideologically closer to each other and the median voter during years in which the legislative election is concurrent with the presidential election.

**H3:** Among regimes in which the head of state is directly elected, the main parties will be ideologically closer to each other and the median voter in regimes in which the head of state is elected through a plurality election than in regimes where the head of state is elected in a runoff election.

## 2 Data and Methods

The empirical evidence comes from two different, but related, datasets. The data on the positions of the parties comes from the Comparative Manifestos Project (CMP) (Budge, 2001), which provides the ideological positions of every political party in each legislative election since the end of the Second World War for select countries.<sup>1</sup>

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<sup>1</sup>The initial dataset only had twenty countries included, however, in the latest version that number has grown to 52 countries, including virtually almost every democratic election in the postwar era. The CMP has 2,347 positions of 632 different political parties in its latest edition. The positions of parties in the CMP are derived from codifying the sentences of every election manifesto in its dataset as a way of placing the parties on the left-right scale. Then, the party's actual ideological value is computed by subtracting the sum of the percentage of left-wing codified statements from the sum of the percentage of right-wing codified statements. Therefore, a positive value represents a party

This dataset alone however cannot provide the evidence necessary to demonstrate how presidentialism impacts party competition. The main problem facing the CMP is that it does not provide the positions of presidential candidates for each party in those countries with presidential elections. Neither the CMP nor any other dataset has any record of presidential candidate positioning for the entire postwar era.

This still leaves the problem of finding an alternative measurement that can capture how parties position themselves in presidential regimes. Such an alternative measurement is found by using the statistic of the median voter in each election.

The median voter statistic can be useful for measuring the effects of presidentialism on a party system for a couple of reasons. First, as stated earlier, the location of the median voter gives a measure of where the center of the party system is located in any given election. This then provides a starting point for any kind of analysis of party system behavior. Second, presidential elections induce presidential candidates to move toward the center of the political spectrum. This causes presidential elections to have a centripetal nature. If parties desire to have positions similar to their respective presidential candidates, they would therefore have to move toward the location of the median voter as well.

This method of estimating the effect of presidentialism on the party competition is akin to how astrophysicists discuss star clusters that are invisible in the sky. These clusters cannot be seen, but can still be detected. The conclusions that these astrophysicists make are widely accepted, even though there is no direct evidence of these stars existing. The methods I am using to test party positioning are similar to this. This is because the positions of presidential candidates are like invisible stars. However, unlike invisible stars, we can still observe presidential candidates. The median voter statistic is taken from a dataset by De Neve (2011), which is essentially an expanded version of an already-existing dataset created by Kim and Fording (1998).<sup>2</sup> To calcu-

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with a right-leaning ideological position, while a negative value represents a party with a left-leaning position. The ideological values of parties can range on an infinite scale from -100 (the most left-wing position a party can take) to 100 (the most right-wing position a party can take). The timeframe for the CMP ranges from 1945 till the mid-2000's decade.

<sup>2</sup>The Kim and Fording version of the median voter dataset includes the location of the median voter in 364 elections in 25 countries. However, De Neve's more recent version includes not only the 25 countries from Kim and Fording's initial dataset, but 28 more countries that were not included by Kim and Fording. Along with including more countries than Kim and Fording, De Neve also slightly revised the methodology by which the median voter statistic was calculated, by basing his values off a version of the CMP that corrects for random error (Benoit et al., 2009). Along with the 53 countries included in De Neve's median voter dataset, I took the methods used by Kim and Fording/De Neve, and calculated the median voter for all of South Korea's legislative elections since 1992. This gives

late the statistic of the median voter in each election, they first took the values of the positions of each party from the CMP for a given election. Next, they calculated the midpoint in-between each party for that election. Finally, they found the percentage of the vote received by each party in that election, and weighted each party's position by that vote share to come up with an accurate representation of what the distribution of voters looked like in that election.<sup>3</sup>

The advantage of using the median voter dataset is that it provides for a way in which the median voter can be assessed in each election. This assessment can be done regardless of country or time of election. The only other method as to which the median voter can be assessed is through using survey data. However, such information is nonexistent for most elections. This is due to electoral surveys having only been conducted for a select few countries, and select elections within those countries. With this said, the median voter dataset has been validated by comparing it to preexisting measures of voter ideology. Two such surveys that it has been compared to are the Eurobarometer survey and Stimson's (1999) policy mood model of Americans' collective ideology since the 1950's.

### **Table 1 Here**

As described in Table 1, counting only democratic cases, there are 32 elections in the dataset that occurred under a pure presidential regime. Meanwhile, there are 98 elections that occurred under a semi-presidential regime. Broken down further, 24 elections in pure presidential regimes were concurrent, while eight were non-concurrent. Furthermore, only seven elections in semi-presidential regimes were concurrent, while the other 91 were non-concurrent. The numbers become smaller when broken down further according to the electoral system used in the presidential election.

These small numbers are the result of two factors. First, most of the dataset's democratic regimes are located in Western Europe. This region of the world is known for primarily featuring countries with parliamentary regimes. Second, the dataset does not include any countries from Latin America (with the exception of Mexico). Most of the world's pure presidential regimes are located in this region.

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me a total of 54 countries for analysis.

<sup>3</sup>It should be noted that the statistic of the median voter in each election is based on the same scale used by the CMP, therefore a median voter value that is negative indicates that the median voter in that given election was on the left side of the spectrum, and a positive median voter value means that the median voter was right-leaning in that election.

In an ideal world, I would prefer to have a dataset that included a wider range of countries. Specifically, I would add in those countries in Latin America that employ pure presidential regimes. This would also give me a larger number of elections that were held concurrently with presidential elections. Having a smaller sample size means that it will be harder to make inferences from the results of the analyses. The more cases that are available, the more confidence can be placed in the results.

Despite these limitations, the positive aspect of the current dataset is that there is a large enough sample size to allow me to make inferences about the effects presidentialism has on party competition in general. As a result, I will combine both pure presidential and semi-presidential regimes into one category measuring presidentialism, containing 130 cases. This will then give me 31 concurrent elections and 99 non-concurrent elections in all presidential regimes. While I will only be able to give results of the effects that presidential elections have on party placement, this serves as a useful starting point to demonstrate how presidentialism affects party behavior in ways that have not been explained by political scientists who study party competition.

## 2.1 Dependent Variables

The dependent variables of interest in this chapter are the distance between the two major parties from each other and the distance of the two major parties from the median voter. The distance between the major parties is important to the theory of centripetal incentives in presidentialism. This is because if the two major parties are trying to mimic their presidential counterparts, they should be converging towards each other. The variable of the distance of the major parties from each other is simply taken by getting the absolute value of the difference in CMP scores of the two major parties in each election. Therefore, the smaller the value of the dependent variable, the closer in distance the two major parties are from each other in the given election. The larger the value, the further away the parties are from each other.

The same logic of convergence should manifest itself also when we look at the distance of the major parties from the median voter. This variable is the sum of the squared distances of each major party from the median voter. The dependent variable of the distance of the major parties from each other will exclusively use data from the CMP. The dependent variable of the distances of the major parties from the median voter will use data from both the CMP and the median voter dataset.<sup>4</sup>

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<sup>4</sup>further detail on the two dependent variables is available in the appendix.

Before going any further, it is necessary to explain what I mean by a major party. For the purposes of this chapter, a major party is the largest party in terms of vote share on each side of the ideological spectrum. This is irrespective of the extremeness of the ideology of that party.<sup>5</sup> Furthermore, in many countries, there have been changes as to which party becomes the major party on the right or left, based on the vote shares in each election.<sup>6</sup> Table 5 in the appendix shows the party used for each election in the dataset.

As expected, the smaller the value of the dependent variable, the closer in distance the two major parties are from the median voter in the given election. The larger the value, the further away the parties are from the median voter. While it is plausible that one of the major parties could be relatively far away from the median voter while the other major party is closer to the median voter, my theory states that both of the parties will move closer towards the median voter as the result of the presence of a presidential election. One major party cannot be close to the median voter while the other major party is not. Both parties have to be close to the median voter under regimes of presidentialism.

## 2.2 Independent Variables

Both of the dependent variables will be tested on several independent variables, all of which are dummy variables. The effects of presidentialism will be tested at three levels.<sup>7</sup> At each level, all parliamentary regimes will be used as the reference category.

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<sup>5</sup>For example, in some countries, the major party of the left is the country's social-liberal party (i.e., the Democratic Party in the United States), while in other countries, the major party of the left is the country's social-democratic party (i.e., the Labour Party in the United Kingdom). In some countries, the major party of the left is the country's communist party (i.e., the Progressive Party of Working People in Cyprus). On the right side of the ideological spectrum, the major party of the right is the country's Christian democratic party (i.e., the Christian Democratic Union in Germany), and in other countries the major party of the right is the country's economically-liberal party (i.e., the Liberal Democratic Party in Japan).

<sup>6</sup>An example of this would be in Switzerland, where the Christian Democratic People's Party had long been for decades the major party on the right. However, since the 1999 Swiss parliamentary election, the national conservative Swiss People's Party has been attaining the most votes on the political right in Switzerland.

<sup>7</sup>The independent variables are being created in the above stated manner, as opposed to running interaction models for the independent variables. The reason for doing so is because creating interaction models proved to be problematic. This is because running interaction models using these variables leads to several of the interaction terms being dropped, due to multicollinearity present among some of the interaction terms in the model. Instead, each institutional category, save for the reference group, is placed in each level's model.

Therefore, all results on the independent variables should be put in comparison to parliamentarism.

The first test is the simplest: between the effect of elections held in separation of powers systems (presidential and semi-presidential) versus parliamentary systems.

The second test explores the impact of concurrence. I create two dummies here to explore against the reference category (parliamentary elections): legislative elections in presidential regimes in which the legislative election occurs the same day as a presidential election, and legislative elections in presidential regimes where the presidential election is not held on that same day. These variables explore the impact of concurrence and non-concurrence on parties' positions.

The third test explores the impact of presidential election rules on legislative party positioning. Here, I create a dummy for concurrent and non-concurrent elections held under plurality rule for the presidential elections, and then a dummy for concurrent and non-concurrent elections held under a two-round runoff election. The reference category for each dummy includes elections held under parliamentary regimes.

The differences in these two types of presidential ballots are important to consider. This is because plurality elections have the effect of reducing the effective number of candidates to two in an election. On the other hand, runoff elections reduce the effective number of candidates to three (Cox, 1997; Golder, 2006). Thus, I expect the effect of presidential elections held under plurality rule systems to have a stronger reductive effect on the distance between the two major parties than elections held under a two-round system.

## **Table 2 Here**

Table 2 gives a breakdown of all of the countries included in the dataset, categorized by type of institutional regime, along with the years in which their legislative elections are included in the dataset used for this study.

In each model that follows I also included a control for the electoral system implemented in the legislative election. This is important, because the literature has shown that the type of electoral system used in a legislative election affects the number of parties competing in an election. This in turn affects where the parties decide to position themselves (Downs, 1957; Cox, 1990; Kollman et al., 1992). As a result, proportional electoral systems cause parties to move away from the median voter, while majoritarian electoral systems cause parties to move towards the median voter. Such an effect on the placement of parties must be accounted for then in the models.

I created two dummy variables, for majoritarian and PR legislative systems, with mixed systems as the reference category. The first includes all legislative elections that were held in single-member districts, where the winner was decided either through a plurality vote, two-round runoff system, or instant runoff voting. The second includes all legislative elections that were held under a proportional representation system, either through a party list, single non-transferrable vote, or multi-member district single transferrable vote. Elections that were held under a mixed-member electoral system are used as the reference category. These include all legislative elections that were conducted under a system of mixed-member proportional representation or parallel voting.<sup>8</sup>

## 3 Results

### 3.1 Testing the Parties' Distances From Each Other

Figure 1 looks at the effect presidential regimes have on the distance between the major parties in each election. All of the models are run using Prais-Winsten FGLS panel regressions, to account for serial autocorrelation, with semirobust standard errors in order to account for heteroskedasticity. The models in Figure 1 progressively test the hypotheses using the distance of the major parties from each other as the dependent variable. Each of the cells reports the coefficients and semirobust standard errors for how much each of the categorical independent variables affects the distance of the major parties from each other. This figure is essentially a backwards a results tree, where the coefficients are reported only for cases that meet all of the criteria for a specific branch of the tree. The procedure is repeated for the tests on the distances of the major parties from the median voter in Figure 4. The full models that are used to create the coefficients and standard errors, along with the impact of control variables, are located in the appendix.

#### Figure 1 Here

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<sup>8</sup>Testing the models using a dichotomous distinction between majoritarian systems and systems that are either proportional or mixed-member did not change the relationship between presidentialism and the placement of parties. Also, using a more-detailed distinction within majoritarian (plurality, instant-runoff voting, two-round runoff) electoral systems did not change the relationship between presidentialism and the placement of parties.

Model 1a tests whether or not the distance of the major parties from each other varies between regimes of direct presidential elections and parliamentarism, thus testing Hypothesis 1. The results confirm that, all things being equal, the distance between the major parties in countries that elect presidents is smaller than in countries that have parliamentary regimes.

Examples from real cases illuminates presidentialism's effect on party competition. The first example compares Sweden and Finland. Sweden and Finland are good for comparison, since they are two culturally- and economically-similar countries in Scandinavia that both employ proportional representation for their legislative elections. The key difference between these two countries is that, as a semi-presidential regime, Finland directly elects its head of state, while Sweden does not (being a parliamentary constitutional monarchy).

### Figure 2 Here

Figure 2 compares the distances of the major parties from each other in both of the countries. For Sweden, the two major parties that are used are the Swedish Social Democratic Workers' Party on the left, and the Moderate Party<sup>9</sup> on the right. For Finland, the two major parties that are used are the Social Democratic Party of Finland on the left,<sup>10</sup> and the National Coalition Party on the right.

According to the results in Model 1a, Figure 2 should show that the major parties in Finland are closer to each other. In each of the examples, the same scale that is used for the CMP is used for the examples. The larger the number on the scale, the further the ideological distance, the smaller the number, the smaller the ideological distance. Looking at Figure 2, it shows that the two major parties in Finland have generally been closer to each other than the two major parties in Sweden (save for an outlier case in the 1975 Finnish election).

Another example uses two countries that have recently made the transition to democratic rule, the Czech Republic and Poland. As with Sweden and Finland, the Czech Republic and Poland are culturally-similar bordering countries, which employ proportional representation for legislative elections. The two countries also transitioned to democracy at the same time during the late 1980's-early 1990's.

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<sup>9</sup>Previously known as the National Organization of the Right and the Rightist Party.

<sup>10</sup>It should be noted that for the 1962 and 1966 Finnish legislative elections, the communist Finnish People's Democratic League was used as the left-wing party, since they finished ahead of the Social Democratic Party in vote totals.

The key difference is that Poland, as with Finland, is a semi-presidential regime, while the Czech Republic is a pure parliamentary regime, with an appointed head of state. Given these characteristics, the expectation is that the major parties in Poland should be closer to each other and the median voter than the major parties in the Czech Republic.

### Figure 3 Here

For the Czech Republic, the major left-wing party used is the Czech Social Democratic Party,<sup>11</sup> and the major right-wing party used is the Civic Democratic Party.<sup>12</sup> In Poland, the major left-wing party used is the Democratic Left Alliance, while there is a different right-wing party used in each election (listed in the appendix).<sup>13</sup> The results described in Model 1a are once-again shown in this example, as Figure 3 shows that the major parties in Poland are closer to each other than in the Czech Republic.

Model 1a however is a starting point for the comparisons. Model 1b assesses the impact concurrent and non-concurrent elections have in presidential regimes, while comparing them to elections held in pure parliamentary regimes. Within presidentialism, we see a greater effect on the distance between the major parties among concurrent elections compared to that of non-concurrent elections. This gives support to my second hypothesis.

In Model 1b, the estimate for concurrent elections is smaller than the estimate for non-concurrent elections, indicating that concurrent elections have major parties that are closer to each other than in non-concurrent elections. Furthermore, the estimates for both concurrent and non-concurrent elections remain negative. This gives additional support for my first hypothesis. Model 1c brings in information regarding the type of presidential ballot used in a given regime, allowing for a testing of my third hypothesis. Here, the results are only partly in line with my basic expectations: Among concurrent elections, the estimate for elections in a country with a plurality presidential ballot is larger than the estimate for elections in a country with a runoff presidential ballot. However, among non-concurrent elections, the estimate for elections in a country with a plurality presidential ballot is smaller than the estimate for elections in a country with a runoff presidential ballot. As a result, my third hypothesis cannot be

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<sup>11</sup>The Communist Party of Czechoslovakia is used for the 1990 and 1992 elections.

<sup>12</sup>Its predecessor organization, the Civic Forum, is used for the 1990 election.

<sup>13</sup>This is because a different right-wing party earned the most votes in the first four Polish legislative elections.

fully confirmed, since concurrent elections in countries with runoff presidential ballots have major parties closer to each other than concurrent elections in countries with plurality presidential ballots.

The results in Figure 1 provide strong support for my first two hypotheses, but only partial support for the third one. The analyses show that regimes that provide for direct presidential elections have major parties that are ideologically closer to each other. Also, this effect is pronounced more among concurrent elections than in non-concurrent elections. While non-concurrent elections in countries with plurality presidential ballots have major parties that are closer to each other than major parties in non-concurrent elections in countries with runoff presidential ballots, the evidence shows that this is not so for concurrent elections.

### **3.2 Testing the Parties' Distances From The Median Voter**

Next, I turn to assessing the impact presidentialism has on the distances of the major parties from the median voter. Once again, this assessment is important, because it will show that regardless of other incentives that might make parties exhibit centripetal and centrifugal tendencies, the major parties in presidential regimes will move towards the ideological center. This is similar to what presidential candidates do in those regimes. Figure 4 shows the results.

**Figure 4 Here**

As with Model 1a, Model 2a provides for a comparison between regimes of direct presidential election and parliamentary regimes. However, each institution is now being tested on the extent to which they affect the distance of major parties from the median voter, thus testing Hypothesis 1. The results confirm that, all things being equal, the distance of the major parties from the median voter in regimes that directly elect presidents is smaller than the distance of similar parties in parliamentary regimes. Thus, this provides full support for the first hypothesis.

**Figure 5 Here**

The same real-world cases used for Model 1a are used to provide up-close evidence for Model 2a. Figure 5 compares the distances of the major parties from the median voter in Sweden and Finland. Figure 5 conforms to the general results seen in Model

2a. It shows that for most of the post-war history, the major parties in Finland have been ideologically closer to the median voter than have the major parties in Sweden. Figure 6 shows the differences in the distances of the major parties from the median voter in the Czech Republic and Poland. The graph again provides evidence for Model 2a, as the major parties in Poland are closer to the median voter than in the Czech Republic.

### Figure 6 Here

Once again, Model 2a is only the starting point for the rest of the analysis. Model 2b investigates the within-difference among presidentialism, between concurrent and non-concurrent elections. In concurrent elections, there is a greater effect on the distance of the major parties from the median voter compared to that of non-concurrent elections. This gives full confirmation to Hypothesis 2. However, only the estimates for concurrent elections are significant. While this is so, both the estimates for concurrent and non-concurrent elections are negative. This indicates that both types of elections still move major parties closer to the median voter, providing more confirmation of Hypothesis 1.

The effects of concurrent elections making the major parties move closer to the median voter can be seen clearly when looking at the case of France. France in general makes for a unique observation, given the variations in their institutions used in the post-war era. From the end of World War II till 1958, France was a parliamentary regime, under the constitution of the Fourth Republic. Since 1958, it has been a semi-presidential regime under the constitution of the Fifth Republic.<sup>14</sup> In addition, from 1962-2002, legislative elections have been held non-concurrently from presidential elections. From 2002 onward, presidential elections have occurred within a month of legislative elections. This change in 2002 has created relative concurrence between the presidential and legislative elections.

### Figure 7 Here

Figure 7 shows the distance of the major parties from each other in this timeframe.<sup>15</sup> Looking at Figure 7, it is seen that the distance between the major parties has generally

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<sup>14</sup>Direct presidential elections have been held in France since 1962.

<sup>15</sup>The major left-wing party used until 1962 is the French Communist Party. Since then, the Socialist Party is used. On the right, various right-wing parties are used until 1956. Since then, each era's main Gaullist party is used (with the current one being the Union for a Popular Movement). However, elections in-between 1956 and 1973 are not included in this graph, since France had a Polity score of less than 6 during this period, and are therefore not part of the analysis.

taken a downward path in the Fifth Republic. This again gives another example of the results in Model 2a being shown at a national level. The smallest distance between the parties occurs in 2002, the first year of concurrent elections. This provides evidence that supports the results in Model 2b. In the figure, however, there is a small reversal of the downward trend in 1986. This can potentially be attributed to the change in electing members of the French National Assembly from a two-round majoritarian ballot to proportional representation, causing more centrifugal parties. France returned to a majoritarian ballot for the next legislative election.

Model 2c looks at the presidential ballot type for each election. This allows for a testing of the third hypothesis. In line with Model 1c, the results show that among concurrent elections, the estimate for elections in a country with a runoff presidential ballot is smaller than the estimate for elections in a country with a plurality presidential ballot. Also as with Model 1c, among non-concurrent elections, the estimate for elections in a country with a plurality presidential ballot is smaller than the estimate for elections in a country with a runoff presidential ballot. These results in Model 2c only provide partial confirmation for the hypothesis, as the runoff elections do not exhibit a significant relationship with the dependent variable.

The results in Figure 4 provide strong evidence for Hypotheses 1 and 2, and partial evidence for Hypothesis 3. Despite results that show major parties being further away from the median voter in concurrent plurality elections than concurrent runoff elections, the analyses show that regimes with direct presidential elections have major parties that are closer to the median voter. Furthermore, within presidentialism, there is reason to believe that concurrent elections cause major parties to be closer to the median voter than in non-concurrent elections.

## 4 Conclusions

As stated earlier, previous scholarship has overlooked how presidentialism affects spatial party competition. Namely, major parties are given incentives to move toward the position of their presidential candidate (and equally toward the center of the party system) in a legislative election. This happens in every presidential regime, regardless of other incentives (such as the electoral system that is in place for legislative elections, or the number of parties competing in that election).

The analyses in this chapter tested the general tendencies of these expectations.

This was achieved through indirect inference by comparing the locations of parties relative to that of the center of the party system in each election. The tests on how presidentialism affects party competition showed several things. First, presidentialism induces major parties in each country to move closer to each other (and to the location of the median voter), all things being equal. Second, presidentialism induces major parties in each country to move closer to each other (and to the location of the median voter) when elections are concurrent, as compared to non-concurrent elections. Finally, there is preliminary evidence that major parties move closer to each other (and the location of the median voter) in non-concurrent elections in presidential regimes that implement a plurality ballot in presidential elections over that of presidential regimes where the president is elected through a two-round runoff vote.

Despite these findings, there are a couple of limitations to the study that needs to be addressed. First, as stated earlier, the dataset used in the analyses did not include a variable for the positions of presidential candidates in countries that have presidential elections. Second, and more importantly, the selection of cases in the dataset did not include the whole coverage of presidential regimes in the world. This is due to the fact that the highest concentration of pure presidential regimes is located in Latin America. This left an incomplete perspective of the presidential universe, and required me to combine pure presidential and semi-presidential regimes into one broad category of presidentialism.

In the situation of an ideal world, an appropriate analysis would appear as follows. To start, my dataset would have these key features. First, my new dataset would include the positions of not only parties in each legislative election, but the positions of presidential candidates in each presidential election. This would allow for a more effective analysis of the movement of parties toward their presidential candidates. This is opposed to using the value of the median voter to indirectly infer that parties are moving closer to their presidential candidates. Presently, the CMP only gives the positions of the parties at the time of each legislative election for each country. However, my theory holds that parties are close to their respective presidential candidates in presidential elections.

Second, the new dataset would have a more inclusive set of countries from which I could analyze the positions of parties. This is a result of the CMP having focused mainly on European countries, and not having any cases in Latin America outside of Mexico. Having these cases would simultaneously increase the number of cases of pure

presidential regimes and concurrent elections. Latin America provides an excellent resource to those studying presidential regimes, since the majority of the world's pure presidential regimes are located in that region. In addition, there are several omitted countries in Asia that have presidential systems. An increase in the number of cases around the world in later editions of the CMP and median voter datasets would give more opportunities to test the theories of presidentialism's impact on party positioning.

After the appropriate dataset is in place, I could go forward with the ideal analysis. First, I would examine three different dependent variables. The first variable would compare the distances of major parties from their respective presidential candidates in legislative elections. The second variable would once again compare the distances of major parties from each other. The final variable would again compare the distances of major parties from the median voter in each election.

Second, I would run models using the following independent variables. The first of these variables would compare the effects of these three dependent variables on pure presidentialism and semi-presidentialism. Pure presidentialism should have major parties that are closer to the presidential candidates, each other, and the median voter versus that of parties in semi-presidential regimes.

The second of these variables would show how the timing of elections affects these dependent variables as well. Concurrent legislative elections will have major parties that are closer to their respective presidential candidates, each other, and the median voter as compared to that of non-concurrent legislative elections.

The final independent variable would show how the presidential ballot would affect these dependent variables. Presidential regimes with plurality ballots would have major parties closer to their presidential candidates, each other, and the median voter, versus that of presidential regimes with runoff ballots.

These independent variables would also be interacted with each other in a coherent manner. However, given the limitations I discussed earlier on interacting the dummy variables in the analysis, I instead have to make each combination of institutional classifications as a different dummy variable. All the while, making parliamentarism as a reference category.

Setting up my analysis as I have just described would allow me to accurately test my theoretical assumptions regarding the effects of presidentialism on party competition. However, being constrained with the data limitations that have been presented to me, I instead tested the theoretical assumptions in this chapter as close as I could.

Despite not being able to exactly replicate the theory, there are promising results from the analysis in this study. The first is that it can be concluded that presidentialism plays an important role in making major political parties more ideologically moderate. Second, concurrent elections appear to make major parties move closer to each other, as compared to major parties in non-concurrent elections. And finally, there is reason to believe that countries with plurality presidential elections have major parties that are more ideologically moderate than major parties in countries that have runoff presidential elections.

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## Appendix

### Dependent Variables

#### *Distance of the Major Parties from Each Other*

To calculate the dependent variable of the distance of the major parties from each other, I subtracted the CMP value of the right-wing major party in each election from the CMP value of the left-wing major party in the same election. Then, I calculated the absolute value of this difference, in order to allow for a meaningful comparison across elections. This is because most of the left-leaning parties in my dataset have an ideological position that is a negative number, given that the most left position a party can take, according to the CMP, is -100. This means most of the left-leaning parties have a raw value that is usually lower than the raw value of the respective right-leaning party.

For example, let us assume in one hypothetical election the left-wing major party has an ideological value of -10, the right-wing major party has an ideological position

of 10. When the value of the right-wing major party is subtracted from the value of the left-wing major party, the difference is -20. Now we assume that in a second hypothetical election, the left-wing major party has an ideological value of -5, the right-wing major party has an ideological position of 5. When the value of the right-wing major party is subtracted from the value of the left-wing major party, the difference is -10. While the value of -20 from the first election is technically a smaller number than the value of -10 from the second election, it is obvious the distance between the major parties is smaller in the second election than the distance between the major parties in the first election. Therefore, the absolute values of the differences are taken from each election, giving us a distance value of 20 in the first election, and a distance value of 10 in the second election.

#### *Distance of the Major Parties from the Median Voter*

To calculate the dependent variable of the distance of the major parties from the median voter, I used a multi-step process. First, I took the two major parties in each election, and squared the difference between the major party's position and the position of the median voter for each of the parties. Second, I added these squared numbers together to get a sum of the squared distances. Finally, for simplicity purposes, I divided each of the summed squared distances by 100.

## **Independent Variables**

### *Presidentialism*

The type of institution is coded as a dichotomous variable: 1 = presidential regimes, 0 = parliamentary regimes

### *Concurrent Elections*

The type of election is coded as a dichotomous variable: 1 = concurrent elections in presidential regimes, 0 = all other elections

### *Non-Concurrent Elections*

The type of election is coded as a dichotomous variable: 1 = non-concurrent elections in presidential regimes, 0 = all other elections

*Concurrent Elections with Plurality Ballot*

The type of election is coded as a dichotomous variable: 1 = concurrent elections in presidential regimes with a plurality ballot in the regime's presidential election, 0 = all other elections

*Concurrent Elections with Runoff Ballot*

The type of election is coded as a dichotomous variable: 1 = concurrent elections in presidential regimes with a runoff ballot in the regime's presidential election, 0 = all other elections

*Non-Concurrent Elections with Plurality Ballot*

The type of election is coded as a dichotomous variable: 1 = non-concurrent elections in presidential regimes with a plurality ballot in the regime's presidential election, 0 = all other elections

*Non-Concurrent Elections with Runoff Ballot*

The type of election is coded as a dichotomous variable: 1 = non-concurrent elections in presidential regimes with a runoff ballot in the regime's presidential election, 0 = all other elections

## **Control Variables**

*Majoritarian*

The type of institution is coded as a dichotomous variable: 1 = regime with a plurality vote, two-round runoff system, or instant runoff voting for its legislative election, 0 =

all other regimes

*Proportional*

The type of institution is coded as a dichotomous variable: 1 = regime with a party-list vote or single non-transferrable vote for its legislative election, 0 = all other regimes

Table 1: Breakdown of Elections in Dataset by Regime and Concurrence

	<b>Concurrent</b>	<b>Non-Concurrent</b>	<b>Total</b>
<b>Parliamentary</b>	-	-	310
<b>Pure Presidential</b>	24	8	32
<b>Semi-Presidential</b>	7	91	98
<b>Total</b>	31	99	440

Table 2: Countries by Type and Year in Dataset

Country	Type	Years	Country	Type	Years
Australia	PARL	1946-2001	Macedonia	PRES	1994-1998
Austria	PRES	1949-2002	Mexico	PRES	1997-2000
Belgium	PARL	1946-1999	Moldova	PRES	1994
Bulgaria	PARL	1990-2001	Netherlands	PARL	1946-2003
Canada	PARL	1945-2000	New Zealand	PARL	1946-2002
Cyprus	PRES	1996-2001	Northern Ireland	PARL	1921-1969
Czech Republic	PARL	1990-2002	Norway	PARL	1945-2001
Denmark	PARL	1945-2001	Poland	PRES	1991-2001
Estonia	PARL	1992-2003	Portugal	PRES	1975-1999
Finland	PRES	1945-2003	Romania	PRES	1996-2000
France	PARL	1946-1956	Russia	PRES	2003
France	PRES	1973-2002	Serbia	PRES	2000
Georgia	PRES	2004	Slovakia	PARL	1990-1998
Germany	PARL	1949-2002	Slovenia	PRES	1996-2000
Greece	PARL	1974-2002	South Korea	PRES	1992-2008
Hungary	PARL	1990-2002	Spain	PARL	1977-2000
Ireland	PRES	1948-2002	Sri Lanka	PARL	1952-1977
Israel	PARL	1951-1996	Sweden	PARL	1944-2002
Israel*	PRES	1996-1999	Switzerland	PARL	1947-2003
Italy	PARL	1946-2001	Turkey	PARL	1950-1999
Japan	PARL	1960-2000	Ukraine	PRES	1994-2002
Latvia	PARL	1993-2002	United Kingdom	PARL	1945-2001
Lithuania	PRES	1992-2000	United States	PRES	1920-2008

\*Israel conducted direct prime ministerial elections from 1996-2001.

Table 3: Regression Results Used to Make Figure 1

	Model 1a	Model 1b	Model 1c
Presidentialism	-6.22 (1.95)***		
Concurrent Elections		-8.00 (2.69)***	
Non-Concurrent Elections		-5.63 (2.33)**	
Concurrent Elections with Plurality Ballot			-6.84 (3.04)**
Concurrent Elections with Runoff Ballot			-13.36 (4.70)***
Non-Concurrent Elections with Plurality Ballot			-13.63 (4.03)***
Non-Concurrent Elections with Runoff Ballot			-5.22 (2.43)**
Majoritarian	5.19 (2.78)*	5.59 (2.92)*	4.18 (3.15)
Proportional	7.13 (2.59)**	7.10 (2.60)***	5.88 (2.88)**
Constant	22.89 (2.44)***	22.79 (2.47)***	23.97 (2.67)***
<i>N</i>	440	440	440
<i>F</i> -statistic of model fit	6.68***	5.66***	7.50***
<i>R</i> <sup>2</sup>	0.03	0.03	0.04
Cells report Prais-Winsten FGLS parameter estimates with semirobust standard errors in parentheses.			
<i>p</i> < 0.10; <i>p</i> < 0.05; <i>p</i> < 0.01 (two-tailed)			

Table 4: Regression Results Used to Make Figure 4

	<b>Model 2a</b>	<b>Model 2b</b>	<b>Model 2c</b>
Presidentialism	-2.09 (1.17)*		
Concurrent Elections		-2.64 (1.09)**	
Non-Concurrent Elections		-1.91 (1.45)	
Concurrent Elections with Plurality Ballot			-2.19 (1.10)**
Concurrent Elections with Runoff Ballot			-4.74 (3.02)
Non-Concurrent Elections with Plurality Ballot			-4.82 (1.26)***
Non-Concurrent Elections with Runoff Ballot			-1.76 (1.52)
Majoritarian	2.12 (1.20)*	2.24 (1.30)*	1.72 (1.39)
Proportional	5.11 (1.30)***	5.10 (1.30)***	4.65 (1.44)***
Constant	5.33 (1.10)***	5.30 (1.13)***	5.73 (1.20)***
<i>N</i>	440	440	440
<i>F</i> -statistic of model fit	6.38***	5.35***	21.29***
<i>R</i> <sup>2</sup>	0.03	0.03	0.03

Cells report Prais-Winsten FGLS parameter estimates with semirobust standard errors in parentheses.  
 $p < 0.10$ ;  $p < 0.05$ ;  $p < 0.01$  (two-tailed)

Figure 1: Presidentialism's Effects on the Distance of the Major Parties from Each Other

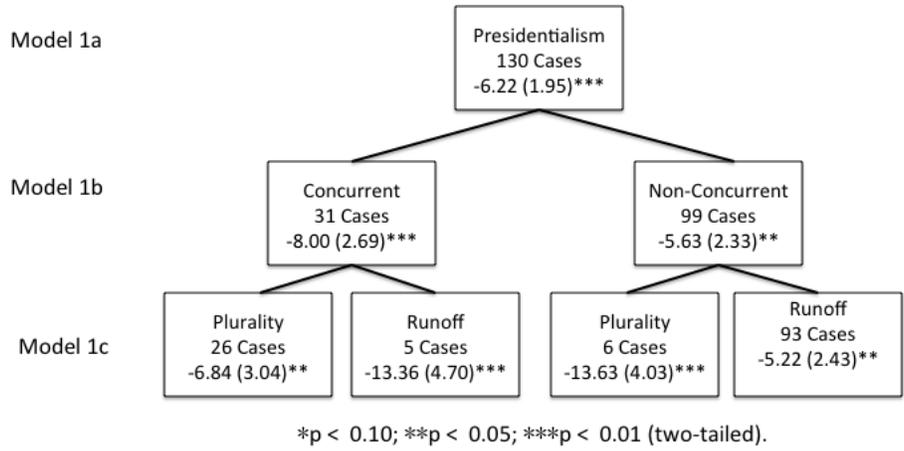


Figure 2: Comparison of Distances Between Major Parties in Sweden and Finland

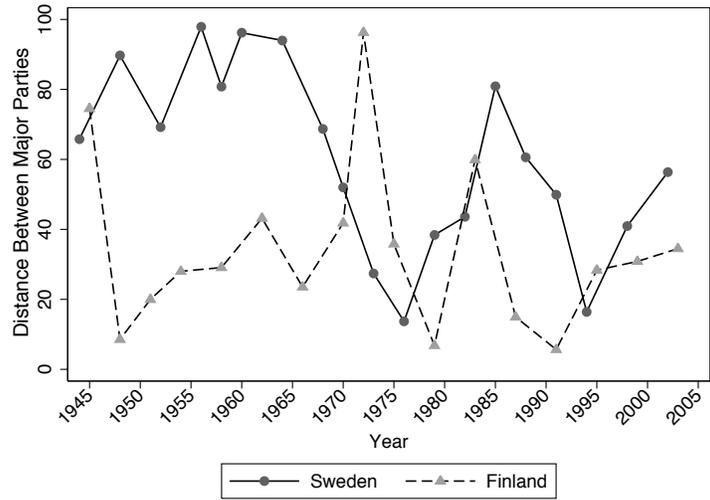


Figure 3: Comparison of Distances Between Major Parties in the Czech Republic and Poland

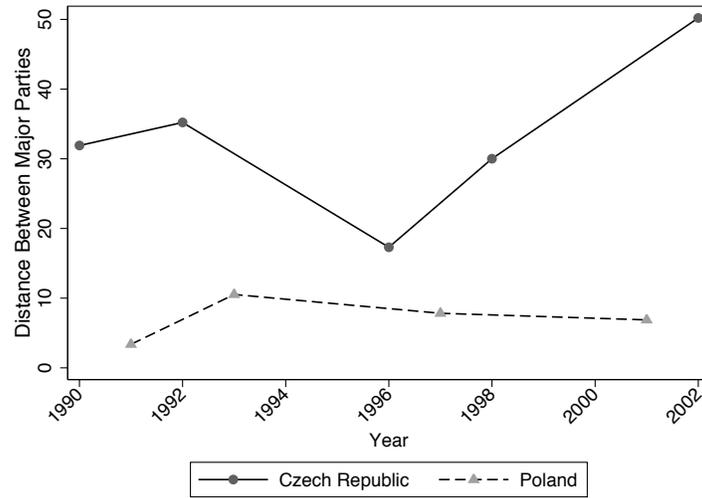


Figure 4: Presidentialism's Effects on the Distance of the Major Parties from the Median Voter

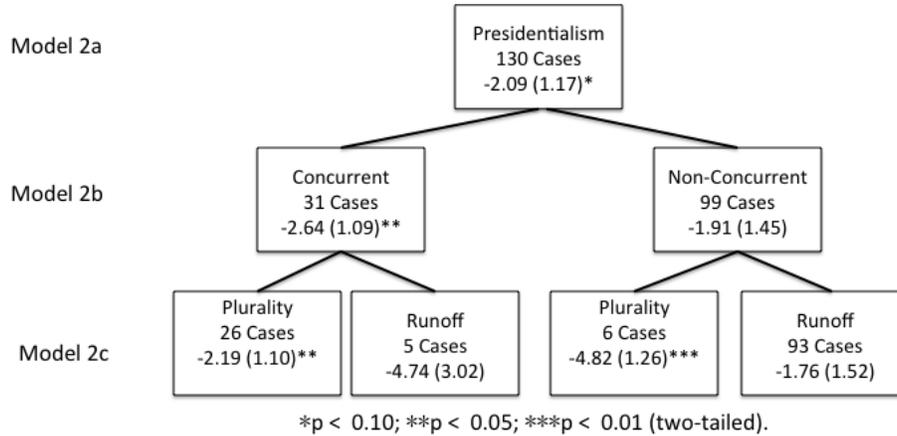


Figure 5: Distance of Major Parties from the Median Voter in Sweden and Finland

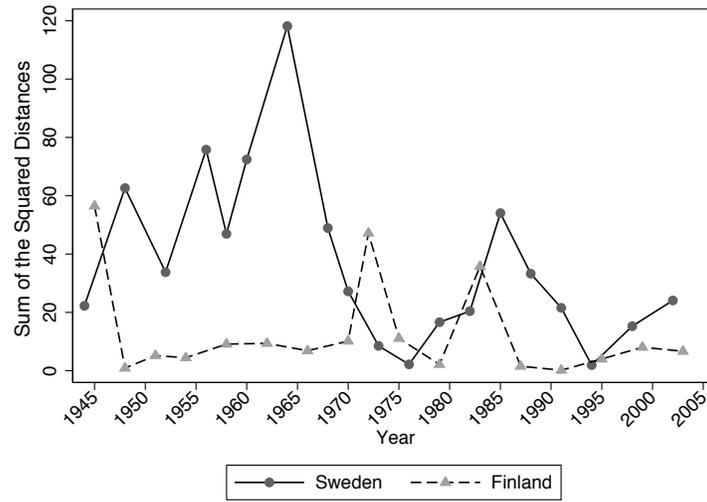


Figure 6: Distance of Major Parties from the Median Voter in the Czech Republic and Poland

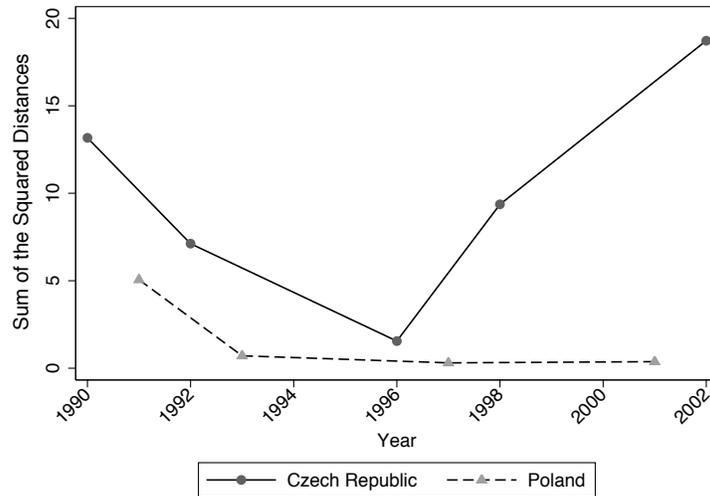


Figure 7: Distance of the Major Parties from the Median Voter in France

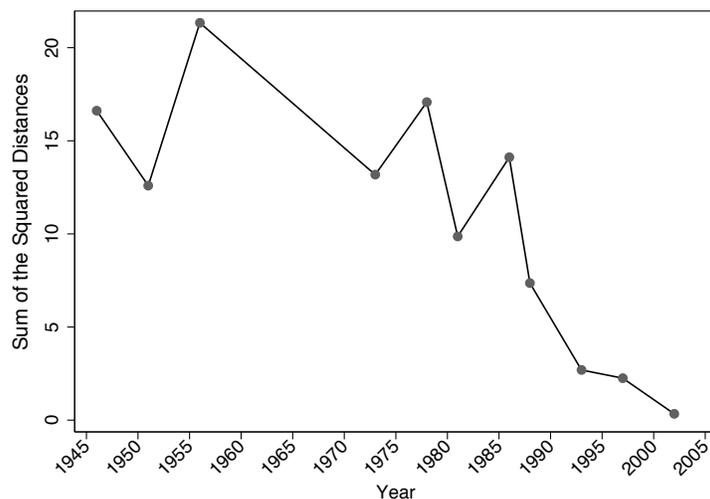


Table 5: List of Parties Used

Country	Election Year	Left-Wing Party	Right-Wing Party
Australia	1946	Australian Labor Party	Liberal Party of Australia
Australia	1949	Australian Labor Party	Liberal Party of Australia
Australia	1951	Australian Labor Party	Liberal Party of Australia
Australia	1954	Australian Labor Party	Liberal Party of Australia
Australia	1955	Australian Labor Party	Liberal Party of Australia
Australia	1958	Australian Labor Party	Liberal Party of Australia
Australia	1961	Australian Labor Party	Liberal Party of Australia
Australia	1963	Australian Labor Party	Liberal Party of Australia
Australia	1966	Australian Labor Party	Liberal Party of Australia
Australia	1969	Australian Labor Party	Liberal Party of Australia
Australia	1972	Australian Labor Party	Liberal Party of Australia
Australia	1974	Australian Labor Party	Liberal Party of Australia
Australia	1975	Australian Labor Party	Liberal Party of Australia
Australia	1977	Australian Labor Party	Liberal Party of Australia
Australia	1980	Australian Labor Party	Liberal Party of Australia
Australia	1983	Australian Labor Party	Liberal Party of Australia
Australia	1984	Australian Labor Party	Liberal Party of Australia
Australia	1987	Australian Labor Party	Liberal Party of Australia
Australia	1990	Australian Labor Party	Liberal Party of Australia
Australia	1993	Australian Labor Party	Liberal Party of Australia

Australia	1996	Australian Labor Party	Liberal Party of Australia
Australia	1998	Australian Labor Party	Liberal Party of Australia
Australia	2001	Australian Labor Party	Liberal Party of Australia
Austria	1949	Socialist Party of Austria	Austrian People's Party
Austria	1953	Socialist Party of Austria	Austrian People's Party
Austria	1956	Social Democratic Party of Austria	Austrian People's Party
Austria	1959	Social Democratic Party of Austria	Austrian People's Party
Austria	1962	Social Democratic Party of Austria	Austrian People's Party
Austria	1966	Social Democratic Party of Austria	Austrian People's Party
Austria	1970	Social Democratic Party of Austria	Austrian People's Party
Austria	1971	Social Democratic Party of Austria	Austrian People's Party
Austria	1975	Social Democratic Party of Austria	Austrian People's Party
Austria	1979	Social Democratic Party of Austria	Austrian People's Party
Austria	1983	Social Democratic Party of Austria	Austrian People's Party
Austria	1986	Social Democratic Party of Austria	Austrian People's Party
Austria	1990	Social Democratic Party of Austria	Austrian People's Party
Austria	1994	Social Democratic Party of Austria	Austrian People's Party
Austria	1995	Social Democratic Party of Austria	Austrian People's Party
Austria	1999	Social Democratic Party of Austria	Freedom Party of Austria
Austria	2002	Social Democratic Party of Austria	Austrian People's Party
Belgium	1946	Belgian Socialist Party	Christian Social Party
Belgium	1949	Belgian Socialist Party	Christian Social Party
Belgium	1950	Belgian Socialist Party	Christian Social Party
Belgium	1954	Belgian Socialist Party	Christian Social Party
Belgium	1958	Belgian Socialist Party	Christian Social Party
Belgium	1961	Belgian Socialist Party	Christian Social Party

Belgium	1965	Belgian Socialist Party	Christian Social Party
Belgium	1968	Belgian Socialist Party	Christian Social Party
Belgium	1971	Belgian Socialist Party	Christian People's Party
Belgium	1974	Belgian Socialist Party	Christian People's Party
Belgium	1977	Belgian Socialist Party	Christian People's Party
Belgium	1978	Socialist Party (Wallonia)	Christian People's Party
Belgium	1981	Socialist Party (Wallonia)	Christian People's Party
Belgium	1985	Socialist Party (Wallonia)	Christian People's Party
Belgium	1987	Socialist Party (Wallonia)	Christian People's Party
Belgium	1991	Socialist Party (Wallonia)	Christian People's Party
Belgium	1995	Socialist Party (Wallonia)	Christian People's Party
Belgium	1999	Socialist Party (Wallonia)	Christian People's Party
Bulgaria	1990	Bulgarian Socialist Party	Union of Democratic Forces
Bulgaria	1991	Bulgarian Socialist Party	Union of Democratic Forces
Bulgaria	1994	Bulgarian Socialist Party	Union of Democratic Forces
Bulgaria	1997	Bulgarian Socialist Party	Union of Democratic Forces
Bulgaria	2001	Bulgarian Socialist Party	National Movement Simeon II
Canada	1945	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1949	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1953	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1957	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1958	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1962	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1963	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1965	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1968	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1972	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1974	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1979	Liberal Party of Canada	Progressive Conservative Party of Canada

Canada	1980	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1984	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1988	Liberal Party of Canada	Progressive Conservative Party of Canada
Canada	1993	Liberal Party of Canada	Reform Party of Canada
Canada	1997	Liberal Party of Canada	Reform Party of Canada
Canada	2000	Liberal Party of Canada	Canadian Alliance
Cyprus	1996	Progressive Party of Working People	Democratic Rally
Cyprus	2001	Progressive Party of Working People	Democratic Rally
Czech Republic	1990	Communist Party of Czechoslovakia	Civic Forum
Czech Republic	1992	Communist Party of Bohemia and Moravia	Civic Democratic Party
Czech Republic	1996	Czech Social Democratic Party	Civic Democratic Party
Czech Republic	1998	Czech Social Democratic Party	Civic Democratic Party
Czech Republic	2002	Czech Social Democratic Party	Civic Democratic Party
Denmark	1945	Social Democrats	Conservative People's Party
Denmark	1947	Social Democrats	Conservative People's Party
Denmark	1950	Social Democrats	Conservative People's Party
Denmark	1953	Social Democrats	Conservative People's Party
Denmark	1953	Social Democrats	Conservative People's Party
Denmark	1957	Social Democrats	Conservative People's Party
Denmark	1960	Social Democrats	Conservative People's Party
Denmark	1964	Social Democrats	Conservative People's Party
Denmark	1966	Social Democrats	Conservative People's Party
Denmark	1968	Social Democrats	Conservative People's Party
Denmark	1971	Social Democrats	Conservative People's Party
Denmark	1973	Social Democrats	Progress Party
Denmark	1975	Social Democrats	Venstre
Denmark	1977	Social Democrats	Progress Party
Denmark	1979	Social Democrats	Venstre
Denmark	1981	Social Democrats	Conservative People's Party
Denmark	1984	Social Democrats	Conservative People's Party
Denmark	1987	Social Democrats	Conservative People's Party
Denmark	1988	Social Democrats	Conservative People's Party
Denmark	1990	Social Democrats	Conservative People's Party
Denmark	1994	Social Democrats	Venstre

Denmark	1998	Social Democrats	Venstre
Denmark	2001	Social Democrats	Venstre
Estonia	1992	Popular Front Bloc	Fatherland Bloc
Estonia	1995	Estonian Centre Party	Estonian Coalition Party
Estonia	1999	Estonian Centre Party	Fatherland Union
Estonia	2003	Estonian Centre Party	Res Publica Party
Finland	1945	Social Democratic Party of Finland	National Coalition Party
Finland	1948	Social Democratic Party of Finland	National Coalition Party
Finland	1951	Social Democratic Party of Finland	National Coalition Party
Finland	1954	Social Democratic Party of Finland	National Coalition Party
Finland	1958	Social Democratic Party of Finland	National Coalition Party
Finland	1962	Finnish People's Democratic League	National Coalition Party
Finland	1966	Finnish People's Democratic League	National Coalition Party
Finland	1970	Social Democratic Party of Finland	National Coalition Party
Finland	1972	Social Democratic Party of Finland	National Coalition Party
Finland	1975	Social Democratic Party of Finland	National Coalition Party
Finland	1979	Social Democratic Party of Finland	National Coalition Party
Finland	1983	Social Democratic Party of Finland	National Coalition Party
Finland	1987	Social Democratic Party of Finland	National Coalition Party
Finland	1991	Social Democratic Party of Finland	National Coalition Party
Finland	1995	Social Democratic Party of Finland	National Coalition Party
Finland	1999	Social Democratic Party of Finland	National Coalition Party
Finland	2003	Social Democratic Party of Finland	National Coalition Party
France	1946	French Communist Party	Popular Republican Movement

France	1951	French Communist Party	Rally of the French People
France	1956	French Communist Party	National Centre of Independents and Peasants
France	1973	Socialist Party	Union of Democrats for the Republic
France	1978	Socialist Party	Rally for the Republic
France	1981	Socialist Party	Rally for the Republic
France	1986	Socialist Party	Rally for the Republic
France	1988	Socialist Party	Rally for the Republic
France	1993	Socialist Party	Rally for the Republic
France	1997	Socialist Party	Rally for the Republic
France	2002	Socialist Party	Union for a Popular Movement
Georgia	2004	United National Movement	New Rights Party of Georgia
Germany	1949	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1953	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1957	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1961	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1965	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1969	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1972	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1976	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1980	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1983	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1987	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1990	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1994	Social Democratic Party of Germany	Christian Democratic Union of Germany
Germany	1998	Social Democratic Party of Germany	Christian Democratic Union of Germany

Germany	2002	Social Democratic Party of Germany	Christian Democratic Union of Germany
Greece	1974	Panhellenic Socialist Movement	New Democracy
Greece	1977	Panhellenic Socialist Movement	New Democracy
Greece	1981	Panhellenic Socialist Movement	New Democracy
Greece	1985	Panhellenic Socialist Movement	New Democracy
Greece	1989	Panhellenic Socialist Movement	New Democracy
Greece	1989	Panhellenic Socialist Movement	New Democracy
Greece	1990	Panhellenic Socialist Movement	New Democracy
Greece	1993	Panhellenic Socialist Movement	New Democracy
Greece	1996	Panhellenic Socialist Movement	New Democracy
Greece	2000	Panhellenic Socialist Movement	New Democracy
Hungary	1990	Hungarian Socialist Party	Hungarian Democratic Forum
Hungary	1994	Hungarian Socialist Party	Alliance of Free Democrats
Hungary	1998	Hungarian Socialist Party	Fidesz - Hungarian Civic Union
Hungary	2002	Hungarian Socialist Party	Fidesz - Hungarian Civic Union
Ireland	1948	Fianna Fáil	Fine Gael
Ireland	1951	Fianna Fáil	Fine Gael
Ireland	1954	Fianna Fáil	Fine Gael
Ireland	1957	Fianna Fáil	Fine Gael
Ireland	1961	Fianna Fáil	Fine Gael
Ireland	1965	Fianna Fáil	Fine Gael
Ireland	1969	Fianna Fáil	Fine Gael
Ireland	1973	Fianna Fáil	Fine Gael
Ireland	1977	Fianna Fáil	Fine Gael
Ireland	1981	Fianna Fáil	Fine Gael
Ireland	1982	Fianna Fáil	Fine Gael
Ireland	1982	Fianna Fáil	Fine Gael
Ireland	1987	Fianna Fáil	Fine Gael
Ireland	1989	Fianna Fáil	Fine Gael
Ireland	1992	Fianna Fáil	Fine Gael
Ireland	1997	Fianna Fáil	Fine Gael
Ireland	2002	Fianna Fáil	Fine Gael
Israel	1951	Mapai	General Zionists
Israel	1955	Mapai	Herut
Israel	1959	Mapai	Herut
Israel	1961	Mapai	Herut
Israel	1965	Alignment	Gahal
Israel	1969	Alignment	Gahal
Israel	1973	Alignment	Likud

Israel	1977	Alignment	Likud
Israel	1981	Alignment	Likud
Israel	1984	Alignment	Likud
Israel	1988	Alignment	Likud
Israel	1992	Israeli Labor Party	Likud
Israel	1996	Israeli Labor Party	Likud
Israel	1999	One Israel	Likud
Italy	1946	Italian Socialist Party	Christian Democracy
Italy	1948	Italian Communist Party	Christian Democracy
Italy	1953	Italian Communist Party	Christian Democracy
Italy	1958	Italian Communist Party	Christian Democracy
Italy	1963	Italian Communist Party	Christian Democracy
Italy	1968	Italian Communist Party	Christian Democracy
Italy	1972	Italian Communist Party	Christian Democracy
Italy	1976	Italian Communist Party	Christian Democracy
Italy	1979	Italian Communist Party	Christian Democracy
Italy	1983	Italian Communist Party	Christian Democracy
Italy	1987	Italian Communist Party	Christian Democracy
Italy	1992	Democratic Party of the Left	Christian Democracy
Italy	1994	Democratic Party of the Left	Forza Italia
Italy	1996	Democratic Party of the Left	Forza Italia
Italy	2001	Democrats of the Left	Forza Italia
Japan	1960	Japan Socialist Party	Liberal Democratic Party
Japan	1963	Japan Socialist Party	Liberal Democratic Party
Japan	1967	Japan Socialist Party	Liberal Democratic Party
Japan	1969	Japan Socialist Party	Liberal Democratic Party
Japan	1972	Japan Socialist Party	Liberal Democratic Party
Japan	1976	Japan Socialist Party	Liberal Democratic Party
Japan	1979	Japan Socialist Party	Liberal Democratic Party
Japan	1980	Japan Socialist Party	Liberal Democratic Party
Japan	1983	Japan Socialist Party	Liberal Democratic Party
Japan	1986	Japan Socialist Party	Liberal Democratic Party
Japan	1990	Japan Socialist Party	Liberal Democratic Party
Japan	1993	Japan Socialist Party	Liberal Democratic Party
Japan	1996	New Frontier Party	Liberal Democratic Party
Japan	2000	Democratic Party of Japan	Liberal Democratic Party
Latvia	1993	National Harmony Party	Latvian Way
Latvia	1995	Democratic Party - Saimnieks	People's Movement for Latvia
Latvia	1998	National Harmony Party	People's Party

Latvia	2002	For Human Rights in United Latvia	New Era Party
Lithuania	1992	Democratic Labour Party of Lithuania	Sajudis
Lithuania	1996	Democratic Labour Party of Lithuania	Homeland Union - Lithuanian Conservatives
Lithuania	2000	Democratic Labour Party of Lithuania	Liberal Union of Lithuania
Macedonia	1994	Social Democratic Union of Macedonia	Party for Democratic Prosperity
Macedonia	1998	Social Democratic Union of Macedonia	VMRO–DPMNE
Mexico	1997	Institutional Revolutionary Party	National Action Party
Mexico	2000	Institutional Revolutionary Party	National Action Party
Moldova	1994	Socialist Party of Moldova - Unity Movement	Democratic Agrarian Party of Moldova
Netherlands	1946	Labour Party	Catholic People's Party
Netherlands	1948	Labour Party	Catholic People's Party
Netherlands	1952	Labour Party	Catholic People's Party
Netherlands	1956	Labour Party	Catholic People's Party
Netherlands	1959	Labour Party	Catholic People's Party
Netherlands	1963	Labour Party	Catholic People's Party
Netherlands	1967	Labour Party	Catholic People's Party
Netherlands	1971	Labour Party	Catholic People's Party
Netherlands	1972	Labour Party	Catholic People's Party
Netherlands	1977	Labour Party	Christian Democratic Appeal
Netherlands	1981	Labour Party	Christian Democratic Appeal
Netherlands	1982	Labour Party	Christian Democratic Appeal
Netherlands	1986	Labour Party	Christian Democratic Appeal
Netherlands	1989	Labour Party	Christian Democratic Appeal
Netherlands	1994	Labour Party	Christian Democratic Appeal
Netherlands	1998	Labour Party	People's Party for Freedom and Democracy
Netherlands	2002	Labour Party	Christian Democratic Appeal
Netherlands	2003	Labour Party	Christian Democratic Appeal
New Zealand	1946	New Zealand Labour Party	New Zealand National Party
New Zealand	1949	New Zealand Labour Party	New Zealand National Party
New Zealand	1951	New Zealand Labour Party	New Zealand National Party
New Zealand	1954	New Zealand Labour Party	New Zealand National Party

New Zealand	1957	New Zealand Labour Party	New Zealand National Party
New Zealand	1960	New Zealand Labour Party	New Zealand National Party
New Zealand	1963	New Zealand Labour Party	New Zealand National Party
New Zealand	1966	New Zealand Labour Party	New Zealand National Party
New Zealand	1969	New Zealand Labour Party	New Zealand National Party
New Zealand	1972	New Zealand Labour Party	New Zealand National Party
New Zealand	1975	New Zealand Labour Party	New Zealand National Party
New Zealand	1978	New Zealand Labour Party	New Zealand National Party
New Zealand	1981	New Zealand Labour Party	New Zealand National Party
New Zealand	1984	New Zealand Labour Party	New Zealand National Party
New Zealand	1987	New Zealand Labour Party	New Zealand National Party
New Zealand	1990	New Zealand Labour Party	New Zealand National Party
New Zealand	1993	New Zealand Labour Party	New Zealand National Party
New Zealand	1996	New Zealand Labour Party	New Zealand National Party
New Zealand	1999	New Zealand Labour Party	New Zealand National Party
New Zealand	2002	New Zealand Labour Party	New Zealand National Party
Northern Ireland	1921	Nationalist Party	Ulster Unionist Party
Northern Ireland	1925	Nationalist Party	Ulster Unionist Party
Northern Ireland	1929	Nationalist Party	Ulster Unionist Party
Northern Ireland	1933	Nationalist Party	Ulster Unionist Party
Northern Ireland	1938	Northern Ireland Labour Party	Ulster Unionist Party
Northern Ireland	1945	Northern Ireland Labour Party	Ulster Unionist Party
Northern Ireland	1949	Nationalist Party	Ulster Unionist Party
Northern Ireland	1953	Northern Ireland Labour Party	Ulster Unionist Party
Northern Ireland	1958	Northern Ireland Labour Party	Ulster Unionist Party
Northern Ireland	1963	Northern Ireland Labour Party	Ulster Unionist Party
Northern Ireland	1965	Northern Ireland Labour Party	Ulster Unionist Party
Northern Ireland	1969	Northern Ireland Labour Party	Ulster Unionist Party
Norway	1945	Labour Party	Conservative Party
Norway	1949	Labour Party	Conservative Party
Norway	1953	Labour Party	Conservative Party
Norway	1957	Labour Party	Conservative Party
Norway	1961	Labour Party	Conservative Party
Norway	1965	Labour Party	Conservative Party
Norway	1969	Labour Party	Conservative Party
Norway	1973	Labour Party	Conservative Party
Norway	1977	Labour Party	Conservative Party
Norway	1981	Labour Party	Conservative Party
Norway	1985	Labour Party	Conservative Party
Norway	1989	Labour Party	Conservative Party

Norway	1993	Labour Party	Conservative Party
Norway	1997	Labour Party	Progress Party
Norway	2001	Labour Party	Conservative Party
Poland	1991	Democratic Left Alliance	Democratic Union
Poland	1993	Democratic Left Alliance	Polish People's Party
Poland	1997	Democratic Left Alliance	Solidarity Electoral Action
Poland	2001	Democratic Left Alliance	Civic Platform
Portugal	1975	Socialist Party	Democratic People's Party
Portugal	1976	Socialist Party	Democratic People's Party
Portugal	1979	Socialist Party	Social Democratic Party
Portugal	1980	Socialist Party	Social Democratic Party
Portugal	1983	Socialist Party	Social Democratic Party
Portugal	1985	Socialist Party	Social Democratic Party
Portugal	1987	Socialist Party	Social Democratic Party
Portugal	1991	Socialist Party	Social Democratic Party
Portugal	1995	Socialist Party	Social Democratic Party
Portugal	1999	Socialist Party	Social Democratic Party
Romania	1996	Social Democracy Party of Romania	Romanian Democratic Convention
Romania	2000	Social Democracy Party of Romania	Greater Romania Party
Russia	2003	Communist Party of the Russian Federation	United Russia
Serbia	2000	Socialist Party of Serbia	Democratic Opposition of Serbia
Slovakia	1990	Communist Party of Czechoslovakia	Public Against Violence
Slovakia	1992	Party of the Democratic Left	Movement for a Democratic Slovakia
Slovakia	1994	Party of the Democratic Left	Movement for a Democratic Slovakia
Slovakia	1998	Party of the Democratic Left	Movement for a Democratic Slovakia
Slovakia	2002	Direction - Social Democracy	Movement for a Democratic Slovakia
Slovenia	1996	Liberal Democracy of Slovenia	Slovenian People's Party
Slovenia	2000	Liberal Democracy of Slovenia	Slovenian People's Party
South Korea	1992	Democratic Party	Democratic Liberal Party
South Korea	1996	National Congress for New Politics	New Korea Party
South Korea	2000	Millennium Democratic Party	Grand National Party

South Korea	2004	Uri Party	Grand National Party
South Korea	2008	United Democratic Party	Grand National Party
Spain	1977	Spanish Socialist Workers' Party	Union of the Democratic Centre
Spain	1979	Spanish Socialist Workers' Party	Union of the Democratic Centre
Spain	1982	Spanish Socialist Workers' Party	People's Alliance
Spain	1986	Spanish Socialist Workers' Party	People's Alliance
Spain	1989	Spanish Socialist Workers' Party	People's Party
Spain	1993	Spanish Socialist Workers' Party	People's Party
Spain	1996	Spanish Socialist Workers' Party	People's Party
Spain	2000	Spanish Socialist Workers' Party	People's Party
Sri Lanka	1952	Sri Lanka Freedom Party	United National Party
Sri Lanka	1956	Sri Lanka Freedom Party	United National Party
Sri Lanka	1960	Sri Lanka Freedom Party	United National Party
Sri Lanka	1965	Sri Lanka Freedom Party	United National Party
Sri Lanka	1970	Sri Lanka Freedom Party	United National Party
Sri Lanka	1977	Sri Lanka Freedom Party	United National Party
Sweden	1944	Swedish Social Democratic Workers' Party	National Organization of the Right
Sweden	1948	Swedish Social Democratic Workers' Party	National Organization of the Right
Sweden	1952	Swedish Social Democratic Workers' Party	Rightist Party
Sweden	1956	Swedish Social Democratic Workers' Party	Rightist Party
Sweden	1958	Swedish Social Democratic Workers' Party	Rightist Party
Sweden	1960	Swedish Social Democratic Workers' Party	Rightist Party
Sweden	1964	Swedish Social Democratic Workers' Party	Rightist Party
Sweden	1968	Swedish Social Democratic Workers' Party	Rightist Party
Sweden	1970	Swedish Social Democratic Workers' Party	Moderate Party
Sweden	1973	Swedish Social Democratic Workers' Party	Moderate Party
Sweden	1976	Swedish Social Democratic Workers' Party	Moderate Party
Sweden	1979	Swedish Social Democratic Workers' Party	Moderate Party

Sweden	1982	Swedish Social Democratic Workers' Party	Moderate Party
Sweden	1985	Swedish Social Democratic Workers' Party	Moderate Party
Sweden	1988	Swedish Social Democratic Workers' Party	Moderate Party
Sweden	1991	Swedish Social Democratic Workers' Party	Moderate Party
Sweden	1994	Swedish Social Democratic Workers' Party	Moderate Party
Sweden	1998	Swedish Social Democratic Workers' Party	Moderate Party
Sweden	2002	Swedish Social Democratic Workers' Party	Moderate Party
Switzerland	1947	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1951	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1955	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1959	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1963	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1967	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1971	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1975	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1979	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1983	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1987	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1991	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1995	Social Democratic Party of Switzerland	Christian Democratic People's Party of Switzerland
Switzerland	1999	Social Democratic Party of Switzerland	Swiss People's Party

Switzerland	2003	Social Democratic Party of Switzerland	Swiss People's Party
Turkey	1950	Republican People's Party	Democratic Party
Turkey	1954	Republican People's Party	Democratic Party
Turkey	1957	Republican People's Party	Democratic Party
Turkey	1961	Republican People's Party	Justice Party
Turkey	1965	Republican People's Party	Justice Party
Turkey	1969	Republican People's Party	Justice Party
Turkey	1973	Republican People's Party	Justice Party
Turkey	1977	Republican People's Party	Justice Party
Turkey	1983	People's Party	Motherland Party
Turkey	1987	Social Democratic Populist Party	Motherland Party
Turkey	1991	Social Democratic Populist Party	True Path Party
Turkey	1995	Democratic Left Party	Welfare Party
Turkey	1999	Democratic Left Party	Nationalist Movement Party
Ukraine	1994	Communist Party of Ukraine	People's Movement of Ukraine
Ukraine	1998	Communist Party of Ukraine	People's Movement of Ukraine
Ukraine	2002	Communist Party of Ukraine	Viktor Yushchenko Bloc - Our Ukraine
United Kingdom	1945	Labour Party	Conservative Party
United Kingdom	1950	Labour Party	Conservative Party
United Kingdom	1951	Labour Party	Conservative Party
United Kingdom	1955	Labour Party	Conservative Party
United Kingdom	1959	Labour Party	Conservative Party
United Kingdom	1964	Labour Party	Conservative Party
United Kingdom	1966	Labour Party	Conservative Party
United Kingdom	1970	Labour Party	Conservative Party
United Kingdom	1974	Labour Party	Conservative Party
United Kingdom	1974	Labour Party	Conservative Party
United Kingdom	1979	Labour Party	Conservative Party
United Kingdom	1983	Labour Party	Conservative Party
United Kingdom	1987	Labour Party	Conservative Party
United Kingdom	1992	Labour Party	Conservative Party
United Kingdom	1997	Labour Party	Conservative Party
United Kingdom	2001	Labour Party	Conservative Party
United States	1920	Democratic Party	Republican Party
United States	1924	Democratic Party	Republican Party
United States	1928	Democratic Party	Republican Party
United States	1932	Democratic Party	Republican Party

United States	1936	Democratic Party	Republican Party
United States	1940	Democratic Party	Republican Party
United States	1944	Democratic Party	Republican Party
United States	1948	Democratic Party	Republican Party
United States	1952	Democratic Party	Republican Party
United States	1956	Democratic Party	Republican Party
United States	1960	Democratic Party	Republican Party
United States	1964	Democratic Party	Republican Party
United States	1968	Democratic Party	Republican Party
United States	1972	Democratic Party	Republican Party
United States	1976	Democratic Party	Republican Party
United States	1980	Democratic Party	Republican Party
United States	1984	Democratic Party	Republican Party
United States	1988	Democratic Party	Republican Party
United States	1992	Democratic Party	Republican Party
United States	1996	Democratic Party	Republican Party
United States	2000	Democratic Party	Republican Party
United States	2004	Democratic Party	Republican Party
United States	2008	Democratic Party	Republican Party

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