

# Democratic Subversion: Elite Cooptation and Opposition Fragmentation

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28 February 2021

## ABSTRACT

Incumbents in transitioning and democratizing regimes often retain power despite having to regularly compete in multiparty elections. We examine a specific channel through which incumbents can seek to prevent the emergence of a strong opposition that might threaten them in future elections. We present a formal model demonstrating that incumbents can strategically induce opposition fragmentation by appointing some opposition members to ministerial cabinet positions. Opposition politicians who have the opportunity to secure a cabinet position in an incumbent's government tend to compete for office independently rather than coalescing into broad-based parties or electoral alliances. The model shows that weaker incumbents are more likely to rely on this cooptation strategy. Using original data on presidential elections across African countries in 1990-2016, we show that past cooptation of opposition politicians is associated with a more fragmented opposition field in subsequent elections.

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Incumbents in transitioning and democratizing regimes are often able to retain power despite having to regularly compete in multiparty elections (Gandhi and Lust-Okar 2009; Knutsen et al. 2017). A growing body of research on democratic erosion suggests that incumbents can entrench themselves in power through constitutional engineering aimed at undermining institutions that would otherwise constrain them (Prempeh 2008; Albertus and Menaldo 2018; Levitsky and Ziblatt 2018). Incumbents can also resort to illicit tactics, such as jailing opposition leaders or stuffing ballot boxes, to prevent voters from exercising their democratic rights (Simpser 2013; Cheeseman and Klass 2018).

In this article, we identify a distinct channel through which incumbents can contain the threat of multiparty competition without institutional manipulation or electoral malfeasance. We argue that incumbents can prevent the emergence of a strong opposition — one that might dislodge them from power — by simply coopting them. Incumbents who strategically distribute government offices among opposition politicians can minimize the risk of losing elections. By demonstrating a willingness to trade individual ministerial appointments for temporary political allegiance, incumbents can tempt opposition politicians to create splinter parties or to pursue independent candidacies (Diop 2006; Kadima 2014; Lembani 2014; Bob-Milliar 2019). Patronage appointments by incumbents thus exacerbate the collective action problem that frequently prevents the opposition from competing effectively in countries where the future of democracy remains in question. In the process, incumbents do more than merely buy off individual opposition politicians; they weaken the opposition as a whole by inducing their fragmentation.

We formalize the relationship between cooptation and fragmentation through a game theoretic model. The model shows that when opposition candidates are weak relative to the

incumbent, as they often are in transitioning or democratizing regimes, they prefer to run for office independently in the hopes of receiving a cabinet post, a politically valuable resource, rather than attempting to defeat the incumbent as a united opposition. Incumbents can thus induce opposition fragmentation by developing reputations for bringing their opponents into government. But this cooptation strategy comes at a cost for the incumbent: by offering a cabinet post to a member of the opposition, the incumbent risks alienating members of the ruling party who expect their own share of patronage. Given such a tradeoff, the model shows that *weak* incumbents are more likely to rely on the cooptation strategy to increase their chances of winning the next election. Strong incumbents have less need to depend on opposition cooptation to secure their reelection.

The model's formulation helps to account for elite political behavior in regimes where informal patronage relationships shape the competition for power despite the adoption of formal democratic institutions. The model underscores that the advantage incumbents derive from coopting opposition politicians is not in amalgamating those voting blocs with their own; it is in the partisan fragmentation that arises among the opposition. Incumbents can deploy patronage to divide the opposition, using selective incentives to encourage politicians to maintain their independent party labels rather than coalescing under a single banner. When incumbents prove willing to allocate offices across partisan lines, their opponents find it more difficult to attract others in forming an alternative coalition to the one in power.

We provide empirical evidence for the relationship between patronage cooptation and opposition fragmentation using original data on presidential elections held in 35 sub-Saharan African countries from 1990 through 2016. African presidents historically used patronage appointments to consolidate elite support for their autocratic regimes in the post-independence

period (Jackson and Rosberg 1982; Oyugi 2006; Meng 2020), and their successors have continued to use similar cooptation strategies to contend with the exigencies of multiparty competition (Bleck and van de Walle 2019; Ndegwa 2001; Osaghae 1999). We show that leaders who appoint opposition politicians to their ministerial cabinets face a more fragmented field in subsequent presidential elections. We estimate that appointing any opposition politician to the cabinet is associated with at least two additional presidential candidates in the next election, *ceteris paribus*. We find that this cooptation effect increases with each additional pre-election opposition appointment to the cabinet. Consistent with our formal model, we find that weaker reelected incumbents are more likely to make opposition appointments to the cabinet.

This study offers several contributions to the scholarship on authoritarian durability and democratic erosion. First, our analysis provides a corrective to the conventional depiction of electoral opposition in transitioning and democratizing countries. By endogenizing opposition weakness rather than assuming it stems from exogenous sources, our study suggests that electoral opposition is not necessarily *born* weak; it can be deliberately *made* weak. Second, in extending the research on elite cooptation (Lust-Okar 2005; Gandhi 2008; Gandhi and Buckles 2016; Buckles 2019), we highlight one way in which incumbents quietly subvert democracy in the absence of explicit rule breaking. While the extant scholarship often focuses on the illicit or violent tactics that incumbents use to stay in power, we show how incumbents can adapt patronage as a legal means for undermining electoral competition. Third, given prior research on the impact of presidential elections on party system development (Golder 2006; Hicken and Stoll 2011; Elgie et al. 2014), our empirical findings provide new insight into how incumbents can impede the emergence of a stable party system — even when the formal institutional requirements are in place.

We first describe how patronage dynamics shape elite cooptation to produce opposition fragmentation. This logic is formalized in a game-theoretic model that demonstrates why opposition politicians tend to favor cooptation over a unified coalition. The model outlines the conditions under which incumbents use the cooptation strategy. We then describe the data and empirical results. We conclude by discussing the value of accounting for cooptation in the analysis of transitioning and democratizing regimes.

### **Opposition Fragmentation through Patronage**

Incumbent leaders worldwide have historically distributed political offices to stave off threats to their power (Huntington 1968; Scott 1969). They can induce support for their regimes by exploiting the financial weakness of rival politicians who often need ongoing access to resources to sustain their own followings. The politicians who accept patronage appointments are then not merely neutralized by the incumbent; they are dissuaded from acting in concert with others to change the status quo. Once they have accepted patronage appointments, these politicians now have more to lose. Patronage-based cooptation, in this respect, enables incumbents to stabilize their regimes by impeding the coordination of broader opposition.

Patronage appointments have been particularly effective in allowing incumbents to subdue their opposition wherever elections have become normalized as part of politics. In eighteenth-century Britain, Robert Walpole overcame the instability that followed the Glorious Revolution by using the growth of executive offices to tame a fractious parliament, thereby engineering the extended period of Whig political dominance (O’Gorman 1975). Walpole understood that opposition Tories, facing rising electoral costs along with growing intra-elite competition, could not resist accepting his patronage appointments. Indeed, under Walpole’s

tenure, “[i]t was patronage that cemented the political system, held it together, and made it an almost impregnable citadel, impervious to defeat” (Plumb 1967, 189).

Patronage-based cooptation, beyond permitting leaders to consolidate their regimes, encourages the fragmentation of opposition. The association between cooptation and fragmentation is especially likely where politicians can gain access to state resources without being in the winning coalition. In Italy, party system fragmentation has been conventionally attributed to the interaction between electoral rules and ideological polarization. But the electoral calculus of politicians was also driven by the established practice of *trasformismo*, the cooptation of opposition through the formation of ad hoc parliamentary majorities that distributed spoils across the ideological spectrum (Di Palma 1977). Recognizing that ideological distance did not impede political accommodation, Italian politicians had little incentive to coalesce during the five decades following the Second World War.

The patronage-based cooptation that facilitated regime stability and opposition fragmentation in historical cases continues to occur in countries that underwent political liberalization at the end of the Cold War. Among African countries, the patronage dynamics established during the era of one-party rule survived the transition to multiparty politics (Mwenda 2007; Khisa 2019). African presidents have used their discretion over government appointments to exploit the financial vulnerability of opposition rivals who are often expected to satisfy the demands of constituents by engaging in clientelistic outreach. To be viable for office, politicians must acquire the means not only to pay for mundane expenses associated with

campaigning, but also to offer the resources needed to reaffirm their commitment to redistribute among constituents (Kramon 2016).<sup>4</sup>

The problem for African opposition politicians is that they must fend for themselves in financing their campaigns because the fundraising channels typically employed in established democracies are unavailable to them. While ruling parties tap state coffers to subsidize their candidates, few opposition parties have the campaign war chest necessary to provide any substantive funding to their own candidates (Arriola 2012). The financial constraints of opposition politicians thus leave them vulnerable to patronage cooptation by the incumbent. Lacking other financing options, politicians can trade the electoral support they command for a government appointment, especially a cabinet post, that will then enable them to transform public resources into targeted goods or services for their supporters.

Cabinet appointments provide incumbents with an ideal mechanism for credibly distributing patronage to the cash-strapped politicians they seek to coopt. Unlike other forms of compensation, such one-time monetary payments, cabinet posts approximate the key factors that Oyugi (2006, 63) identifies as motivating alliance formation in African countries, namely, “the need to control power and by extension access to the benefits associated with power holding.” Cabinet posts endow their officeholders with an array of flexible benefits that they can direct at their own discretion, such as collecting rents on government contracts, handing out public sector jobs to allies, and targeting state resources to constituents (Kramon and Posner 2016; Bob-Milliar 2019; Brierley 2020). By accessing and diverting such resources, the politicians who

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<sup>4</sup> The Afrobarometer survey conducted in 2005-2006 across 18 countries reveals that, on average, about three-quarters of voters “often” or “always” expect politicians to give gifts during election campaigns. The survey data are available at <http://www.afrobarometer.org/>.

accept cabinet appointments can retain their status as the political leaders of their respective constituencies.

Kenya provides such an example. Although President Daniel arap Moi was reelected in 1997 against a field of rival candidates who divided the opposition vote along ethnic lines, he feared that the opposition might coordinate in the National Assembly, where his ruling party held a slight majority. Moi therefore sought to coopt Raila Odinga, an opposition party leader, by appointing him as a cabinet minister in 2001. Odinga's cabinet appointment had an observable impact on his subsequent campaign spending. Examining data on donations Odinga's party made to *Harambees* — mass rallies Kenyan politicians historically used to cultivate electoral support (Widner 1992) — illustrates how the entry of an opposition leader into government affects their access to resources. In the sixteen months prior to joining Moi's cabinet, Odinga's party donated a little over \$3000 per month to Harambee projects across the country. That monthly figure jumped by 80%, to over \$5500 per month, in the fifteen months after he became a cabinet minister (Osendo and Gachucha 2003).

When an incumbent has a history of appointing opposition candidates to the cabinet, the possibility of obtaining a cabinet seat becomes more credible to other opposition politicians. Rather than trying to win the election as part of a unified coalition, individual opposition politicians know that they can secure access to state power and resources by negotiating themselves into the incumbent's government. This is especially true in regimes where incumbents retain a considerable electoral advantage and winning office, even as a unified coalition, remains unlikely for the opposition. In such a scenario, opposition candidates would face the possibility of losing out on state office even after having invested campaign resources on behalf of a coalition.

Incumbents who want to fragment the opposition need to establish a history of extending patronage across the political spectrum without regard to partisan affiliation. When opposition politicians decide their electoral strategy, they will necessarily consider the incumbent's history of cabinet appointments to determine whether future cooptation is a possibility. Opposition politicians might not expect to negotiate a patronage bargain with an incumbent who has only appointed members of the ruling party to the cabinet. But these politicians could anticipate negotiating such a bargain with an incumbent who had previously appointed opposition politicians as cabinet ministers. Since electoral competition creates a structure for repeated play, politicians can anticipate if an incumbent is likely to renege on such patronage promises (Myerson 2008). The ability of aggrieved opposition politicians to respond in tit-for-tat fashion by coordinating in the next election, and thereby realizing the very outcome the incumbent had sought to prevent, could be a sufficient deterrent to renegeing.

The logic of cooptation helps to explain why an entrenched incumbent like Cameroon's long-serving president, Paul Biya, has routinely appointed opposition politicians to the cabinet despite winning every multiparty election. Biya can outspend his rivals with state funds or use coercion whenever necessary, but the fragmentation of his opposition has been most effectively secured through cooptation. Recognizing that Biya appoints opposition politicians to his cabinet after every election, opposition leaders have had little incentive to coalesce. After the 1992 presidential election, Biya appointed eight members of the opposition to his cabinet, including members of the largest opposition party, the National Union for Democracy and Progress (UNDP). The subsequent 1997 presidential election was boycotted by much of the opposition, but Biya still appointed five opposition members to his cabinet, including the leader of the UNDP. Even after winning the 2004 presidential election with more than two-thirds of the vote,

Biya appointed five members of other parties to his cabinet. Over time, Biya's strategy proved to be effective in fragmenting, and thereby weakening, his opposition. Whereas five opposition candidates contested in the 1992 presidential elections (with the median candidate winning 4% of the vote), 22 opposition candidates contested in the 2011 presidential elections (with the median candidate winning less than 1% of the vote).

When incumbents develop reputations for bringing the opposition into government, opposition candidates have a greater incentive to campaign individually rather than unify. Many opposition candidates enter presidential races not because they expect to win outright, but instead to visibly demonstrate their ability to mobilize sufficient votes in the hope of being offered a cabinet seat. After an election, opposition candidates can leverage their voting blocs to negotiate with the incumbent over their entry into government. In Kenya, opposition politician Kalonzo Musyoka insisted on contesting the 2007 presidential election independently rather than joining a broad-based coalition. Not only did he lack the resources of the incumbent, Mwai Kibaki, or the major opposition candidate, Raila Odinga, but public polls revealed well in advance that his candidacy was hopeless. But since Kibaki had appointed six members of the opposition to his outgoing government, Musyoka may have understood that he might improve his electoral payoff by demonstrating his capacity to win some share of the vote, regardless of who won. Musyoka's gambit paid off: he was appointed as Kibaki's vice president after winning about 9% of the vote.

The cooptation strategy is not risk-free for incumbents. A cabinet appointment does more than provide opposition politicians with access to state resources; it also legitimizes them as potential national leaders. While some opposition politicians may only seek to use a cabinet appointment to maximize their personal benefits, others may choose to invest those resources into competing against the incumbent in future elections. In the case of Senegal, for example,

opposition leader Abdoulaye Wade was able to induce an alternation, in part, by using his prior ministerial experience to convince voters that he had the governing experience required to replace the incumbent who brought him into the cabinet (Kelly 2018). Yet, under an incumbent who demonstrates a willingness to coopt, this risk is attenuated by the fact that the rest of the opposition will continue to fragment to maximize their individual payoffs. In Cameroon, opposition politician Issa Tchiroma split off from the UNDP to create a new party after being left out of a round of cabinet appointments that included the UNDP leader. Tchiroma was then able to secure his own cabinet post within two years of starting his own party.

But incumbents face constraints in offering government positions to their opponents. Incumbents may not have the resources to offer a cabinet post to the opposition even if they could be made better off politically by doing so. An incumbent who faces serious budget constraints due to a poor economy or lacks access to natural resources may be unable to create the additional cabinet seats needed to coopt the opposition (Christensen and Gibilisco 2020). Or, the constraint may stem from the opposition itself. Individual politicians may be unwilling to accept a cabinet appointment even when it is offered. Although ideological cleavages can be relatively weak in transitioning and democratizing countries (Riedl 2014; Bleck and van de Walle 2019), sharp partisan divides run deep in some countries (Buckles 2019). For example, opposition parties that have actively stoked polarization to mobilize voters against an incumbent regime are more likely to have high levels of elite cohesion that deter defection (Lebas 2011). Where such divisions do exist, it may be personally difficult and electorally costly for a politician to cross an ideological or partisan divide to accept a post in a rival's government.

Identifying the potential constraints on opposition cooptation allows us to define the conditions under which incumbents are most likely to deploy this strategy. Given the argument

developed thus far, we expect incumbent use of cooptation to be primarily limited by the extent of party institutionalization. Whereas incumbents may value the flexibility that patronage allows in the formation of political alliances, ruling parties that are sufficiently coherent and organized may seek to veto patronage bargains that cut into the rewards expected by their own partisans. In Senegal, when President Abdou Diouf sought to coopt opposition leader Abdoulaye Wade, ruling party elites mobilized to block the offering of a cabinet post that was perceived as too powerful (Mendy 2001). Apart from exceptions like Tanzania, most African presidents do not lead organizationally autonomous ruling parties. By extension, countries with a history of liberation conflict, such as Mozambique and Zimbabwe, likely fall outside the scope of this argument because parties forged under such circumstances tend to have a uniquely cohesive membership that should be resistant to cooptation.

Beyond party institutionalization, an incumbent's use of cooptation may not necessarily be constrained by other formal institutions. Indeed, it is the adaptability of patronage to various institutional contexts that encourages its use among incumbents. There may be legal requirements associated with certain government appointments (e.g., cabinet ministers must be elected members of parliament), but incumbents generally enjoy a free hand in determining who they will bring into their cabinets, particularly if there are relatively few limits on executive authority. In the Democratic Republic of Congo, for instance, President Joseph Kabila ignored constitutional technicalities for government formation when distributing cabinet posts among his opposition rivals (Makutu and Tshimanga 2014). Instead, it is the overriding threat of losing power that prompts incumbents to engage in opposition cooptation, regardless of the rules under which they operate or compete. For example, not only do incumbents want to prevent their opponents from coordinating before an election in a first-past-the-post system, but they also need

to do the same in a majoritarian run-off system in which a second round would create an opposition candidacy around which others might rally. Incumbents who compete in run-off systems thus need to be attentive to whether cooptation will help induce divisions among their opponents before the first round. When President Denis Sassou-Nguesso sought reelection in the Republic of Congo in 2016, for example, he confidently proclaimed that he would win in the first round (Morice 2016) — an announcement informed by the fact that he was competing against eight opposition candidates that included three of his former cabinet ministers.

### **A Theoretical Model of Opposition Fragmentation**

We model the relationship between incumbent patronage and opposition fragmentation as an infinitely repeated sequence of election cycles involving an *incumbent*, who remains in office until losing an election, and two *opposition candidates*. At the beginning of each election cycle, the opposition candidates each decide to fragment or unify based on their common beliefs about how the incumbent will fill a cabinet position if he wins, namely, whether he will appoint someone from his own party or from an opposing party. These beliefs are formed on the basis of how the incumbent filled the position in the past. We assume that opposition candidates would be willing to accept a cabinet appointment if such a position were offered.<sup>5</sup>

The incumbent is more likely to win if the opposition is fragmented than if it is unified because, in the case of fragmentation, the votes the incumbent does not receive are spread across multiple candidates rather than received solely by the leader of a unified opposition. In each cycle, the election winner decides whether to give a cabinet position to someone outside the

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<sup>5</sup> This is a reasonable assumption, given the weakness of ideological ties in many transitioning and democratizing contexts.

party, as opposition patronage, or to someone from his own party. Opposition leaders are more likely to believe that they may receive an offer of a cabinet seat if the incumbent has a history of making outside appointments. This expectation makes opposition candidates more likely to fragment, which in turn increases the incumbent's victory probability. However, offering a cabinet position to an opposition candidate is also costly for the incumbent because it prevents him from being able to offer that position to someone from his *own* party or existing ruling coalition.

### *Model Setup*

Consider election cycle  $t$ , where each election is a three-period stage game of the infinitely repeated game. At the start of period 1, two *opposition candidates* appear. Both simultaneously choose either “fragment” (i.e., run separately against the incumbent through two distinct opposition parties) or “unify” (i.e., join forces and run against the incumbent in a single opposition party). These choices are made to maximize their respective payoffs from election  $t$  forward, based on beliefs about how the election winner will fill a cabinet vacancy, as explained shortly. If both choose “unify,” then unification occurs in election  $t$ . Otherwise fragmentation occurs.

For convenience and to simplify the analysis, we label one opposition candidate the *opposition leader* and the other the *opposition member*. The intuitive meanings of these labels only apply in the event of unification, meaning that the opposition leader runs as the sole candidate of the opposition coalition. The opposition member, in contrast, forgoes her opportunity to run as a candidate for that election in exchange for a guaranteed cabinet appointment in the event that the opposition leader wins. If the opposition candidates fragment,

the *leader* enjoys no electoral advantage over the *member*; they run as separate equals against the *incumbent*.

Let  $q_{t-1}$  denote a binary variable equaling 1 if the cabinet appointment in the previous election  $t-1$  was from outside the party and 0 if it was from inside the party. Let  $N_{t-1}$  be a binary variable equaling 1 if election  $t-1$  was won by a new officeholder and equaling 0 if it was won by the incumbent. Both opposition candidates observe  $q_{t-1}$  and  $N_{t-1}$  at period 1's start and consider this information when deciding whether to fragment or unify. Let  $f_t^L(q_{t-1}, N_{t-1})$  and  $f_t^M(q_{t-1}, N_{t-1})$  denote the period-1 choices of the leader and member, respectively, where both are binary variables equaling 1 if "fragment" is chosen and 0 if "unify" is chosen. Let  $F_t(q_{t-1}, N_{t-1})$  be a binary indicator equaling 1 if the opposition fragments and 0 if it unifies in election  $t$ , so that  $F_t(q_{t-1}, N_{t-1}) \equiv 1 - (1 - f_t^L(q_{t-1}, N_{t-1}))(1 - f_t^M(q_{t-1}, N_{t-1}))$ .

In period 2, stochastic election results occur. The party receiving the highest vote share wins, and vote shares are independent across elections. Under fragmentation, there are three possible election results (incumbent wins, leader wins, or member wins), whereas under unification there are two possible results (incumbent wins or leader wins). Let  $p_t(F_t(q_{t-1}, N_{t-1}))$  denote the incumbent's probability of victory in election  $t$ . We assume  $\frac{1}{2} \leq p_t(0) < p_t(1) < 1$ , i.e., there is an incumbency advantage, and the incumbent is more likely to win against a fragmented opposition than against a unified one. If the incumbent loses, the opposition leader and member win the election with equal probability under fragmentation. The current holder of a cabinet post retires at the end of period 2, creating a vacancy.

In period 3, the election winner fills the cabinet post either with someone inside the party or with someone outside the party. Let  $D_t(q_t)$  be the winner's cost of filling the cabinet vacancy

in election cycle  $t$ , where  $D_t(0) = 0$  and  $D_t(1) = d > 0$ . The cost of making an inside appointment is (normalized to) zero, and the cost of making an outside appointment is  $d$ .<sup>6</sup>

If the election winner was the incumbent, he is free to choose either  $q_t = 1$  or  $q_t = 0$ . In the case of fragmentation, if an opposition candidate wins, he is also free to choose either  $q_t = 1$  or  $q_t = 0$ . Here we assume that if the winner under fragmentation is an opposition candidate, she will appoint the other opposition candidate if she decides to appoint a candidate outside the party (i.e.,  $q_t = 1$ ). We define winners who have the option of appointing someone from inside or outside the party as “unconstrained winners.”

When the opposition is unified, we assume that if the opposition leader wins she *must* choose  $q_t = 0$  and uphold her commitment to appointing the opposition member to the cabinet post. This contract pertains only to the election cycle in which the newly elected incumbent first enters office; after that, the incumbent can choose either  $q_t = 1$  or  $q_t = 0$  for as long as she keeps winning. Winners who must choose  $q_t = 0$  are called “constrained winners.”

Following the choice of  $q_t$ , payoffs are received, and the opposition candidates who lost the election and received no cabinet appointment retire at period 3’s end. Post-election payoffs vary across three possible outcomes: winning the election, losing the election but getting a cabinet appointment, and losing the election and getting no cabinet appointment. The election winner receives a payoff of  $R - D_t(q_t)$ , representing the rents and returns to holding office.  $R > d$  is assumed, so that the value of winning office exceeds the cost of making an outside appointment. The candidate who loses the election but gets a cabinet appointment receives a

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<sup>6</sup> In practice, one can imagine that this cooptation cost varies across incumbents. For example, incumbents in more institutionalized party-based regimes may face a higher cost for offering a seat to an opposition candidate, since government positions are usually reserved for ruling party elites.

payoff of  $u$ , where  $0 < u < R$ , representing utility gained from having a cabinet position. The payoff of losing the election and getting no appointment is normalized to zero.

If the incumbent wins and chooses  $q_t = 0$ , both opposition candidates get payoffs of zero. If the incumbent wins and chooses  $q_t = 1$ , and if the opposition is unified, then the opposition leader is granted the cabinet position with its payoff of  $u$ , and the opposition member receives zero payoff. If the incumbent wins and chooses  $q_t = 1$ , and the opposition is fragmented, then each opposition candidate is granted the cabinet post with equal probability: the candidate who gets the post receives a payoff of  $u$ , whereas the other candidate gets zero payoff. If the opposition is unified and the incumbent loses, then the opposition leader wins, receives a payoff of  $R$ , and honors an enforceable contract by appointing the opposition member to the cabinet position with its payoff of  $u$ . If the opposition is fragmented and the incumbent loses, then each opposition candidate wins with equal probability, and the losing opposition candidate gets the cabinet post (with its payoff of  $u$ ) if  $q_t = 1$  and zero payoff if  $q_t = 0$ . The winning opposition candidate is assumed not to give the cabinet post to the previous incumbent. The payoffs are summarized in Appendix 1.

### *Patronage and Opposition Fragmentation*

The problem is stationary in that all choice problems look the same at each election cycle, and for simplicity we assume no discounting of the future. Thus, the players' optimal choices are the same each period (given the parameters and state variables), though outcomes can vary in each election because vote shares are stochastic. Let  $V_t$  denote the expected payoff to an unconstrained winner from election cycle  $t$  forward. This can be represented recursively as

$$V_t = R - D_t(q_t) + p_{t+1}(F_{t+1}(q_t, N_t))V_{t+1}.$$

Consider the opposition candidates' beliefs concerning how the cabinet vacancy will be filled at the end of an election cycle. Let  $\pi_t(q_{t-1}, N_{t-1}, N_t, F_t)$  denote each opposition candidate's subjective probability that the winner in election  $t$  will appoint a person outside the party (i.e.,  $q_t = 1$ ). Opposition candidates' expectations are rational, and in equilibrium subjective probabilities must equal actual probabilities, so  $\pi_t = \text{Prob}(q_t = 1 | q_{t-1}, N_{t-1}, F_{t-1}, N_t, F_t)$ . Opposition candidates can influence  $\pi_t$  via  $F_t$ , which reflects their joint decisions.

If a newcomer won the preceding election and filled the cabinet appointment from inside the party (i.e.,  $N_{t-1} = 1$  and  $q_{t-1} = 0$ ), then what can be inferred by the opposition candidates regarding how the election- $t$  cabinet appointment will be made in the event of an incumbent victory (i.e.,  $N_t = 0$ ) depends on the circumstances under which the election- $t$  incumbent came into power as a newcomer in cycle  $t-1$  (i.e., it depends on the value of  $F_{t-1}$ ). In particular, if the winner of the  $t-1$  election was the leader of a unified opposition party (i.e.,  $F_{t-1} = 0$ ), then that winner was contractually obligated to appoint the opposition member (someone from his own party) to the cabinet office in election cycle  $t-1$ . So, if  $q_{t-1} = 0$ ,  $N_{t-1} = 1$ , and  $F_{t-1} = 0$ , the opposition candidates recognize that  $q_{t-1} = 0$  is contractually obligated and potentially a poor predictor of what the incumbent would do as an (unconstrained) winner of election cycle  $t$ . If, on the other hand, the winner of the  $t-1$  election was a candidate in a fragmented opposition party (i.e.,  $F_{t-1} = 1$ ), then it can be inferred that  $q_{t-1} = q_t$ , because the winner was unconstrained in election  $t-1$  as well as in election  $t$  and faced the same problem in both elections. The following proposition describes our first result. All proofs are in Appendix 2.

**Proposition 1:** *Opposition fragmentation in the current election is more likely to occur if the incumbent chose an outside appointment (i.e., opposition patronage strategy) rather than an inside appointment after the previous election.*

To establish the result that opposition fragmentation in election  $t$  is more likely to occur when  $q_{t-1} = 1$  than when  $q_{t-1} = 0$ , recall that fragmentation occurs as long as at least one opposition candidate plays “fragment.” Observe that “fragment” is a weakly dominated strategy for the opposition leader. Under unification, the opposition leader has a higher probability of winning the election than under fragmentation. Even if she loses under unification, she would receive the cabinet appointment with certainty if the incumbent chooses to coopt. The opposition leader has no incentive to deviate to “fragment.”

Our attention therefore focuses on the opposition member. If the opposition member observes  $q_{t-1} = 1$ , she infers that the incumbent (having appointed an outside candidate in the past) would appoint an outside candidate again in the event of an incumbent victory. This means that, under fragmentation, if the member loses, she would have a higher probability of being appointed to the cabinet post (conditional on an incumbent victory) than if  $q_{t-1} = 0$ . The member faces the tradeoff that choosing fragmentation yields a greater (i.e., positive as opposed to zero) probability of victory at the cost of a lower probability of getting appointed to a cabinet post in the event of a loss. But this cost is smaller in the event of  $q_{t-1} = 1$  than in the event of  $q_{t-1} = 0$ , making the member more inclined to choose “fragment.”

### *Equilibrium Analysis*

Attention is restricted to subgame perfect Nash equilibria (SPNE) in pure strategies. Beliefs in equilibrium take a simple form. That is, conditional on  $q_{t-1}$ ,  $N_{t-1}$ ,  $F_{t-1}$ ,  $N_t$ , and  $F_t$ ,

opposition candidates can infer with certainty how the election- $t$  winner will fill the cabinet vacancy, i.e.,  $\pi_t$  is always either zero or one.<sup>7</sup> For technical reasons, we assume that the incumbent plays  $q_t = 0$  whenever the opposition member plays off the equilibrium path in election cycle  $t$  when deciding whether to fragment.<sup>8</sup>

The equilibrium in the one-shot game is instructive and provides a useful benchmark. In that equilibrium, the election winner has no incentive to share power in period 3, so an appointment outside the party will never be made. The opposition leader anticipates this outcome and understands that whether the incumbent wins, or whether the opposition member wins (in the event of fragmentation), there is no chance that the opposition leader will ever be granted the cabinet position. With the cabinet position (and its payoff of  $u$ ) off the table, the opposition leader's only chance at a positive payoff is to win the election, and that happens with higher probability under unification than under fragmentation. The opposition member plays "fragment" only when  $p(0)$  is sufficiently high. Intuitively, when  $p(0)$  is high, the incumbent is likely to win, giving the opposition member a payoff of zero under unification. Thus, playing "fragment" gives the opposition member the best shot at a positive payoff. The bottom line is that the players know that patronage never occurs in the one-shot game with finite interactions among the players.

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<sup>7</sup> We assume that  $\frac{d}{u}$  is sufficiently small to ensure that a SPNE exists for all possible values of  $R$ . If  $\frac{d}{u}$  becomes sufficiently large, the condition for the Proposition 2 fails, creating a region of non-existence of pure strategy SPNE for "intermediate" values of  $R$ ; as  $d$  continues to increase, this non-existence region expands and makes the fragmentation equilibrium less likely.

<sup>8</sup> This assumption ensures,  $F_{t+1}(0, N_t) = 0$ , which is required in the proof of Proposition 2. An interpretation of this assumption (which is admittedly outside the scope of the model) is that the incumbent does not trust such an opposition candidate to be reliable, so the incumbent prefers to play it safe and make a cabinet appointment from within the party.

The situation changes in the case of infinite interactions because in that environment an incumbent reaps a future reward from sharing power in the present. That future reward takes the form of inducing opposition fragmentation in future election cycles, which in turn increases the incumbent's likelihood of retaining power. The following proposition states the main result.

**Proposition 2:**

(i) [Fragmentation Equilibrium] *If the incumbent is weak and  $\frac{d}{u}$  is sufficiently small, then an equilibrium exists in which the incumbent always pursues a strategy of opposition cooptation and the opposition always fragments. Formally, if  $p(0) \leq \frac{Rp(1)-d}{R-d}$  there exists a SPNE in pure strategies in which in every election  $t$  the leader plays the strategy “ $f_t^L = 0$ ; if  $f_t^M = 0$  then  $q_t = 0$ , and if  $f_t^M = 1$  then  $q_t = 1$ ”; member plays “ $f_t^M = 1$ ;  $q_t = 1$ ”, and the incumbent plays “ $q_t = 1$ .”*

(ii) [Unification Equilibrium] *If the incumbent is strong and  $\frac{d}{u}$  is sufficiently small, then an equilibrium exists in which the incumbent never chooses to coopt the opposition and the opposition always unifies. Formally, if  $p(0) > \frac{Rp(1)-d}{R-d}$ , there exists a SPNE in pure strategies in which in every election  $t$  the leader plays “ $f_t^L = 0$ ;  $q_t = 0$ ”; the member plays “ $f_t^M = 0$ ”; and the incumbent plays “ $q_t = 0$ ”.*

Proposition 2 identifies two SPNE. The fragmentation equilibrium involves the opposition fragmenting and the election winner appointing outside the party, whereas the unification equilibrium involves the opposition unifying and the election winner appointing from inside the party.<sup>9</sup> Weak incumbents are incentivized to rely on the cooptation strategy, since

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<sup>9</sup> The condition involving  $\frac{d}{u}$  that is referenced in footnote 4 is made more precise at the end of the proof presented in Appendix 2. If the condition is not met, then a result similar to that in Proposition 2 holds, though for some (intermediate) values of  $R$  no SPNE in pure strategies

doing so increases their chance of winning the next election. This, in turn, induces opposition fragmentation, since past outside appointments incentivize the opposition member to defect from forming a coalition. Already strong incumbents, on the other hand, will not pursue the cooptation strategy because the cost of making an outside appointment does not outweigh the benefit of a higher victory probability.

## Data and Measurement

We corroborate the cooptation-based explanation for opposition fragmentation by empirically examining how politicians respond in electoral terms to an incumbent's history of cabinet appointments. The formal model suggests that opposition politicians infer their likelihood of cooptation into government based on whether the incumbent has previously appointed opposition politicians to the cabinet. If that is the case, opposition politicians should be more likely to compete for office independently, splintering off from established parties or running on minor party tickets, rather than coalescing into larger parties. This line of reasoning implies a straightforward and testable hypothesis in executive elections: prior opposition appointments to the cabinet should be associated with a larger number of candidates vying for office in subsequent elections.

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exists. More precisely, if the condition involving  $\frac{d}{u}$  fails to hold, then part (i) of Proposition 2 continues to hold; part (ii) continues to hold but with a lower threshold for  $R$ , namely  $R < \frac{2(1-p(0))^2 u}{(1-p(1))(p(1)-p(0))}$ ; and no SPNE in pure strategies exists when  $R$  falls in the intermediate interval  $\frac{2u(1-p(0))^2}{(1-p(1))(p(1)-p(0))} < R < \frac{d(1-p(0))}{p(1)-p(0)}$ . For a given value of  $\frac{d}{u}$ , the condition for  $\frac{d}{u}$  fails if  $p(1) - p(0)$  is sufficiently small, so existence of a pure-strategy SPNE for all possible values of  $R$  requires that fragmentation increase the incumbent's probability of winning to a sufficiently large extent relative to unification.

To assess this theoretical expectation, we develop original indicators of opposition cooptation via cabinet appointments made in African countries, most of which experienced political liberalization in the late 1980s and early 1990s, culminating in the introduction of multiparty elections. The region exhibits considerable variation in levels of democracy and incumbent turnover. We examine presidential elections held across 35 African countries between 1990 and 2016.<sup>10</sup> The sample includes virtually all presidential elections held in African countries during this period.<sup>11</sup>

We find that the frequency of opposition cooptation is unrelated to the institutional constraints that African executives themselves face. African presidents do not operate under Westminster-style parliamentarism, so their mandates are independent of the legislature. Their ability to remain head of government is guaranteed by a fixed term and does not depend on maintaining the confidence of the majority in the legislature. Most legislatures either play no role in confirming cabinet appointments or have little influence over the president's appointments to the cabinet. Reelected incumbents who go on to appoint opposition members to their cabinets, nevertheless, often do so despite winning a 61% vote share, on average.

### *Dependent Variable*

The dependent variable is measured as the number of candidates who compete in a presidential election. The patronage-based argument implies that a larger number of candidates

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<sup>10</sup> Presidential systems are the most common worldwide. According to the Database of Political Institutions (Cruz et al. 2018), presidential systems account for 55.84% of all country-years since 1990. Approximately 85% of African countries hold direct presidential elections.

<sup>11</sup> The sample excludes countries that do not directly elect the president (e.g., Botswana, Ethiopia, and South Africa), countries that have not held competitive national elections (e.g., Eritrea, Somalia, and Swaziland), and small island nations.

should be induced to contest an election if opposition politicians have been appointed to the outgoing government's cabinet. Data on presidential candidate participation was compiled from print sources such as Nohlen et al. (1999), online sources like the African Elections Database, and news articles sourced from AllAfrica.com. The average number of presidential candidates is 8.6 and ranges from a minimum of 1 to a maximum of 33. As a robustness check, we also code an alternate version of the dependent variable that only includes candidates that received at least 0.5% of the total vote.

### *Independent Variable*

We measure our main independent variable, opposition cooptation, by examining the appointment of opposition members to the cabinet. Politicians are identified as opposition members if they are not in the president's party, and they are members of a party that previously competed in elections against the incumbent. For instance, in the year leading up to the 2010 presidential elections in Togo, President Faure Gnassingbé appointed two members of the opposition Democratic Convention of African Peoples (CDPA) to his cabinet. The CDPA had previously competed against Gnassingbé's Rally of the Togolese People (RPT), and they fielded their own presidential candidate in the following year's election. When coding such instances of opposition cooptation, we only consider appointments to full-ranking cabinet positions.

We code instances of opposition cooptation using yearly data on cabinet appointments in all African countries. Data on individual opposition members appointed to the cabinet were compiled from annual volumes of *Africa South of the Sahara* and the *Political Handbook of the World*, corroborated through media searches in AllAfrica.com, and cross-checked using the WhoGov dataset (Nyrup and Bramwell 2020).

To consistently identify opposition cooptation in the yearly cabinet data, we create incumbent spells defined as sequences of consecutive years for which an incumbent was in office and had an identifiable cabinet leading up to an election. Each incumbent spell ends in the year prior to the election.<sup>12</sup> Consistent with existing scholarship, we require that an incumbent spell last at least three years to be included in the dataset. If there is a non-peaceful transition of power that interrupts an incumbency spell, such as a coup, we exclude such observations because they do not lead up to an election year. Relatedly, elections without a clear incumbent are excluded from the sample. Such instances can arise when a temporary or caretaker government is in place after a coup has removed the incumbent.

We employ two versions of opposition cooptation. First, we create a dichotomous variable, *Opposition participation in prior cabinet*, indicating whether any opposition members were appointed to the cabinet prior to a presidential election. This variable equals 1 if at least one identifiable opposition member was appointed to a cabinet position, and 0 otherwise. We find that 62% of incumbents in the sample appointed an opposition candidate to their cabinet sometime during their tenure preceding an election.

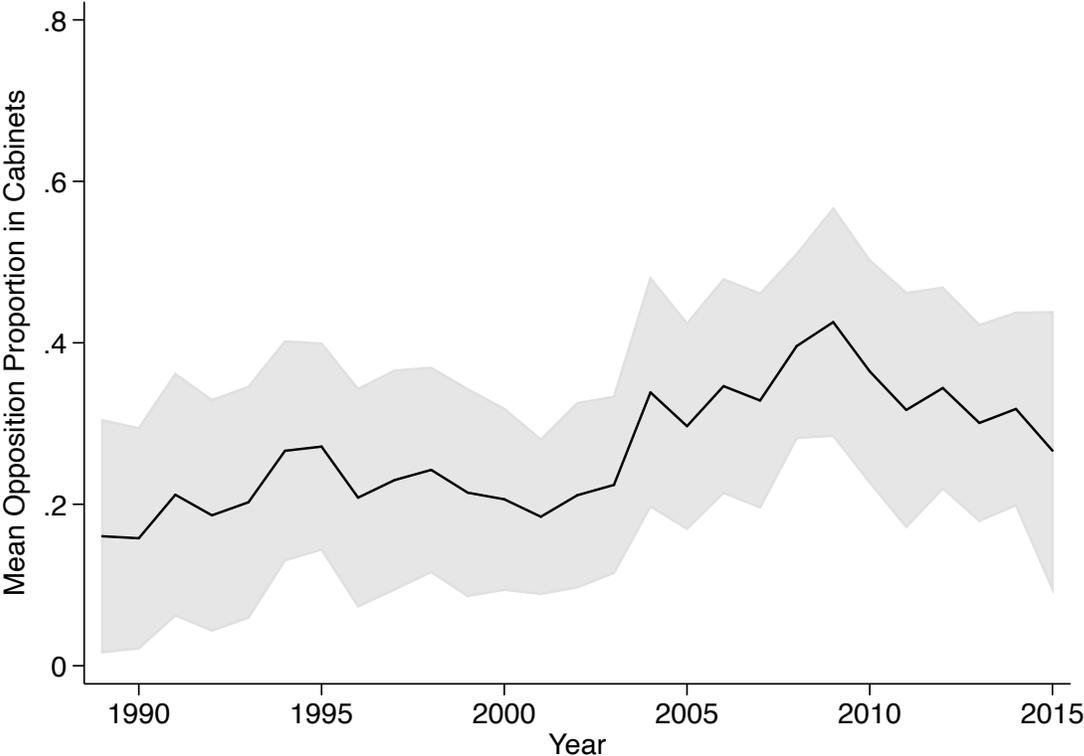
A second version of the independent variable, *Opposition proportion in prior cabinet*, is defined as the proportion of available cabinet seats appointed to opposition members. It is measured by dividing the total number of opposition appointments during an incumbent spell by the total number of cabinet seats available in that incumbent spell. The sample mean is 0.23, ranging from a minimum of 0 to a maximum of 0.92.

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<sup>12</sup> We exclude election years when calculating opposition cooptation because elections can be scheduled throughout the calendar year, creating potential inconsistencies in whether a given cabinet corresponds to the period before or after an election.

Figure 1 illustrates the rate of opposition appointments to the cabinet in our sample from 1990 to 2015, showing that cooptation occurs regularly among African countries. Among the 35 countries in the sample, 80% have appointed members of the opposition at least once to the cabinet. Roughly a quarter of all available cabinet seats in the analysis period have been appointed to the opposition. Figure 1 shows that the regional mean has oscillated over time, between a low of 0.16 in 1990 and a high of 0.43 in 2009. The mean regressed to 0.27 by 2015.

**Figure 1. Opposition Cabinet Appointments in African Countries, 1990-2015**



Note: The solid line plots the regional mean, and the shaded gray area is the 95% confidence interval.

### *Control Variables*

We control for variables relevant to party institutionalization, regime dynamics, and country conditions. We first account for differences in the nature of the prevailing party system. Incumbents may be constrained in their ability to make opposition appointments to the cabinet when their hands are tied by well-established parties that insist on reserving cabinet seats for their own members. We control for differences in levels of party system institutionalization (*Party institutionalization*) using an index from the Varieties of Democracy (V-Dem) Project designed to reflect the extent to which political parties are organized, ideologically coherent, and socially rooted (Coppedge et al 2020).<sup>13</sup> Since one of the most reliable indicators of party strength is whether the incumbent party is able to survive in power beyond the death or departure of its founding leader (Meng 2019), we also use a dummy variable (*Incumbent party survives founder*) equaling 1 if the incumbent's party has survived in power beyond its founding leader, and 0 otherwise. Additionally, opposition cooptation may be constrained by the existing size of the incumbent's ruling coalition, so we control for the proportion of the legislature under its control (*Incumbent share of legislature*). This measure is calculated from the Database of Political Institutions (Cruz et al. 2018) by dividing the number of legislative seats held by government by the total number of legislative seats.<sup>14</sup>

Following insights from the party systems literature on the importance of accounting for the interaction of electoral rules and sociological cleavages (Golder 2006), we include a dichotomous variable for countries that require a second-round election if no candidate wins a

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<sup>13</sup> The V-Dem variable is v2xps\_party.

<sup>14</sup> The corresponding variables in the DPI are numgov and totalseats.

majority of votes in the first round (*Runoff system*),<sup>15</sup> an index of politically relevant ethnic groups (*Ethnic fractionalization*) from Posner (2004), and the interaction between these two variables. Runoff systems are thought to weaken politicians' incentives to coalesce, so they are expected to be associated with a larger number of presidential candidates (Cox 1997). Greater ethnic fractionalization is expected to be associated with a larger number of presidential candidates (Brambor et al. 2006).

We also control for country-level political characteristics. Because political liberalization has yet to be consolidated in many African countries, we control for electoral experience and political rights. We use the V-Dem count for the number of presidential elections held since the last unconstitutional change of government (*Consecutive presidential elections*)<sup>16</sup> and the V-Dem measure for the extent to which liberal democracy is constitutionally achieved (*Liberal democracy*).<sup>17</sup> For robustness, we also substitute this variable with the V-Dem measure of electoral democracy and the Freedom House score for political rights.

To account for economic and sociological factors, we add a measure from the World Bank's World Development Indicators for GDP per capita in constant 2010 US dollars (*GDP per capita*) as a proxy for the level of economic development. We also draw on the World Development Indicators to control for a country's total population (*Population*) and oil rents as a percentage of GDP (*Oil*). We use the natural logarithm of these variables. See Appendix 3 for summary statistics.

Summary statistics of all variables are reported in Appendix 2.

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<sup>15</sup> Data on runoff systems are from the Electoral System Design Database of the Institute for Democracy and Electoral Assistance (2018).

<sup>16</sup> The V-Dem variable is v2elprescons.

<sup>17</sup> The V-Dem variable is v2x\_libdem.

## Empirical Analysis

The statistical models use ordinary least squares (OLS) regression of pooled election data with country-clustered robust standard errors. This empirical strategy is consistent with prior studies of election cycles that conventionally use pooled OLS analyses (Elgie et al. 2014; Golder 2006; Hicken and Stoll 2011). Well-known methodological problems arise when analyzing time-series cross-sectional data, including unobserved heterogeneity across units and serial correlation of errors, which may result in incorrect or misleading estimates (Beck and Katz 1995). A fixed-effects specification can mitigate such problems under certain conditions but can also produce unreliable results, particularly when there are relatively few observations per unit and independent variables change only gradually over time, if at all (Clark and Linzer 2015).

In selecting an appropriate estimation strategy, we compared several potential approaches, including fixed effects, random effects, and detrended or demeaned data.<sup>18</sup> All of these alternative approaches show that the main explanatory variable of interest, *opposition proportion in the prior cabinet*, consistently attains statistical significance at the 0.05 level or better when examined alongside a core set of institutional and regime variables.<sup>19</sup> The results reported here are from the pooled OLS analyses.<sup>20</sup> However, since other studies of election

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<sup>18</sup> See Appendix 4.

<sup>19</sup> In a related study of election cycles, Hicken and Stoll (2011) find that pooled OLS and fixed-effects models produce substantively similar results.

<sup>20</sup> This choice is supported by diagnostic tests. A Hausman test indicates that the preferred model is random effects rather than fixed effects. A Breusch-Pagan Lagrange multiplier test further indicates that the pooled OLS model is preferred to the random-effects model. An F-test also suggests that no time fixed effects are needed in the models.

cycles have used random-effects models (Weghorst and Bernhard 2014; Lago and Torcal 2020), we also replicate our main results using random effects.<sup>21</sup>

In further sensitivity analyses, we implement the test developed by Oster (2017) to gauge the extent to which omitted variable bias might affect our inferences. Specifically, we estimate the level of unobserved confounding that would be necessary to mistakenly detect a significant effect when the true effect is zero. For a regression with an  $R^2$  of 0.4, which is consistent with our baseline analyses, we find that observations would have to select into cooptation on the basis of *unobserved* characteristics at a rate that is 6.7 times more than all the observable characteristics in order for the estimated effect of cooptation to disappear.<sup>22</sup>

#### *Past Opposition Cooptation Induces Opposition Fragmentation*

Table 1's results support the hypothesis that opposition appointments to the cabinet can be used to induce fragmentation. The coefficient on opposition cooptation in the prior cabinet attains its expected positive sign and is statistically significant in all model specifications at conventional levels. The estimated effects of opposition participation in the prior cabinet remain consistent regardless of which controls are included. Model 2 adds the measures for party system institutionalization, ruling party strength, and the ruling party's share of the legislature, and Model 3 further adds the remaining institutional, sociological, and economic controls. The estimated coefficient on opposition participation in Model 3 retains its substantive and statistical significance, indicating that prior opposition cooptation is associated with nearly two additional presidential candidates in the subsequent election.

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<sup>21</sup> See Appendices 6 and 25.

<sup>22</sup> See Appendix 5.

**Table 1. Past Opposition Cooptation Increases Number of Presidential Candidates**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Opposition participation in prior cabinet	3.935*** (1.085)	3.049*** (0.917)	1.908** (0.806)			
Opposition proportion in prior cabinet				9.005*** (2.144)	7.717*** (1.984)	5.929*** (1.502)
Party institutionalization		-6.058 (4.234)	-12.377** (4.961)		-5.606 (3.494)	-11.009** (4.441)
Incumbent party survives founder		1.493 (1.045)	1.175 (1.016)		2.379** (1.079)	1.596 (1.008)
Incumbent share of legislature		-5.431* (2.778)	-4.309 (3.035)		-4.012 (2.419)	-3.465 (2.812)
Runoff system			-0.035 (2.667)			0.350 (2.752)
Ethnic fractionalization			-1.866 (4.404)			-1.447 (4.428)
Runoff system × ethnic fractionalization			3.433 (6.267)			1.906 (6.538)
Consecutive presidential elections			0.191 (0.254)			0.195 (0.234)
Liberal democracy			9.449* (4.998)			8.151* (4.379)
GDP per capita			0.814 (0.637)			1.068* (0.593)
Population			0.903 (0.703)			0.990 (0.663)
Oil			0.814*** (0.267)			0.736*** (0.269)
Constant	6.196*** (0.471)	12.725*** (2.821)	-8.342 (13.18)	6.559*** (0.476)	11.336*** (2.289)	-12.704 (12.51)
Number of observations	135	130	126	135	130	126
Number of countries	35	35	34	35	35	34
R <sup>2</sup>	0.111	0.173	0.351	0.169	0.225	0.392

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses.  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

Table 1's Models 4-6 report the results when the main explanatory variable is switched to the proportion of cabinet seats allocated to the opposition in the years preceding the election. This variable's coefficient is consistently positive and statistically significant with a large magnitude. Based on the associated coefficient in Model 6, increasing the opposition proportion in the cabinet by one standard deviation (0.26) is associated with 1.5 additional presidential candidates in the next election. Moreover, as the differences in  $R^2$  across models suggests, the proportion of opposition members in the cabinet may account for more of the variation in the number of presidential candidates than the standard regime and institutional variables commonly employed in the study of election cycles.

Incumbents belonging to stronger ruling parties are more constrained in their ability to offer cabinet seats to the opposition, as reflected in the negative coefficient on party institutionalization. But the opposition cooptation results remain robust to controlling for ruling party strength and the ruling party's share of seats in the legislature, as shown in Models 5 and 6. The coefficients for runoff system, ethnic fractionalization, and their interaction are statistically insignificant.<sup>23</sup> The V-Dem liberal democracy index suggests that the number of presidential candidates increases with greater democracy, but there is no effect associated with the number of consecutive presidential elections.<sup>24</sup>

Our measure of opposition cooptation in Models 4-6 implicitly accounts for differences in resources by measuring opposition appointments as a share of total available cabinet seats

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<sup>23</sup> Appendix 8 shows that the results are largely unchanged when substituting Fearon's (2003) index for Posner's (2004).

<sup>24</sup> Appendix 9 shows the results when substituting the V-Dem electoral democracy index or the Freedom House political rights index.

rather than the total count of opposition appointments.<sup>25</sup> Nevertheless, we consider the fact that countries can vary in resource endowments that may facilitate the creation of extra cabinet seats that can be offered to the opposition. Model 6 suggests that the number of presidential candidates is correlated with level of development, but the coefficient on oil rents is statistically indistinguishable from zero.

Additional robustness checks presented in supplementary appendices show that the main results remain unchanged when accounting for a variety of other historical or electoral factors, such as controlling for boycotted elections (Appendix 7) or dropping the first election in the post-Cold War period (Appendix 11). Including the number of presidential candidates in the previous election, for example, has no substantive impact (Appendix 12). We also repeat the analysis using an alternate measure of the dependent variable that only includes candidates who received at least 0.5% of the total vote. This roughly halves the maximum number from 33 to 15, but the results remain consistent (Appendix 13).

We examine whether the estimated effects of cooptation depend on the use of other tactics commonly used to neutralize the opposition, namely, electoral fraud and electoral violence.<sup>26</sup> We find no systematic relationship between opposition cabinet appointments and the presence of fraud or violence in elections (the correlation is effectively zero), suggesting that cooptation is not a clear-cut substitute for illicit strategies of political control. The main cooptation results also remain consistent when we repeat our analysis while controlling for fraud and violence (Appendix 14).

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<sup>25</sup> Appendix 10 shows that the results hold even when controlling for the total number of cabinet seats.

<sup>26</sup> The V-Dem variables are v2elfrfair and v2elpeace.

### *Accounting for Alternative Hypotheses*

While the models presented in Table 1 control for various aspects of party institutionalization, there may be concern that the results merely reflect underlying differences in the strength of opposition parties. Weak opposition parties could fragment even in the absence of the incumbent's cooptation strategy. To account for this possibility, we repeat the analysis on a subset of elections that include only regimes with low levels of party system institutionalization (Appendix 15). The results hold even when we limit the sample to elections in which party system institutionalization falls below the mean on V-Dem's index. The estimated coefficients on the opposition proportion of the prior cabinet are either larger or virtually the same as those in the main results.

Another concern stems from the nature of electoral rules. The logic of our argument is straightforward in plurality systems, since incumbents obviously benefit from dividing the opposition when they only need to win the largest number of votes. But does the cooptation logic equally apply in the runoff systems that characterize most African presidential elections? We claim that it does because incumbents understand that they are more likely to lose power if they must compete in a second round. Incumbents want to avert the very scenario that a second-round election manufactures, namely, the selection of a focal opposition candidate around whom others can rally. Incumbent incentives are borne out in the data: while 71% of elections in the sample were conducted in runoff systems, only 27% of those elections go to a second round. And whereas the opposition wins only 7% of first-round elections in runoff systems, they win 54% of second-round elections. Incumbents can thus anticipate that they are more likely to lose if the opposition is not sufficiently fragmented in the first round. In this respect, it is notable that incumbents who win reelection in the second round do so after facing a more fragmented

opposition field in the first round.<sup>27</sup> We show further that our findings remain consistent when limiting the sample only to run-off systems (Appendix 16), excluding cases that go to a second round (Appendix 17), or limiting the sample to runoff systems with no second round (Appendix 18).

The cooptation strategy yields electoral benefits to incumbents even when they compete under the runoff system. Appendix 19 shows that the number of presidential candidates is positively and significantly correlated with the likelihood of incumbent election victory in runoff systems. Appendix 20 further shows that both the number of presidential candidates and the proportion of opposition appointments are positively correlated with incumbent victory in the second round. These relationships retain their statistical significance despite the limited number of observations.

An alternative interpretation of our explanatory variable is that opposition appointments to the cabinet reflect powersharing rather than cooptation (Ariotti and Golder 2018). When incumbents can be removed by a vote of no confidence in the legislature, for example, they often must form alliances with other parties to remain in power. The observations in our sample, however, do not face this constraint because we exclude all parliamentary systems. Directly elected presidents can exercise their mandate without depending on the composition of the legislature. Moreover, the vast majority of incumbents in our sample (85%) enjoy a legislative majority. The typical African incumbent controls a two-thirds majority in the legislature, so they have no obvious need to construct a coalition government.

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<sup>27</sup> Incumbents who win in the second round face an average of 12.8 candidates in the first round; incumbents who lose in the second round face an average of 8.6 candidates in the first round.

Another consideration is that powersharing may be more common in African countries emerging from civil wars. Existing scholarship has highlighted the role of powersharing in civil-war settlements (Adekanye 1998). One might wonder whether our findings are driven by opposition appointments in post-conflict regimes based on such powersharing agreements. We find that leaders in post-conflict regimes do appoint more opposition members to their cabinets (Appendix 21, Model 1). As robustness checks, we control for post-conflict observations (Appendix 21, Model 2) and, alternatively, exclude all post-conflict observations (Appendix 21, Model 3). Our main results remain consistent in all such specifications.

Although many African parties have relatively weak ideological commitments, there are important exceptions. Opposition candidates who rely on ideologically committed partisans may be more reluctant to accept a cabinet position from the incumbent (Buckles 2019). Such opposition parties emerged in former liberation regimes such as Angola and Mozambique. Participation in political conflict hardens partisan bonds, which may prevent opposition members from defecting (Lebas 2013, Levitsky and Way 2012). We find that former liberation regimes are less likely to appoint opposition members to their cabinets (Appendix 22, Model 1). Our results remain robust when controlling for liberation regimes (Appendix 22, Model 2) and excluding such cases (Appendix 22, Model 3).

#### *Weaker Incumbents Appoint More Opposition to the Cabinet*

We now turn to a second observable implication from the theoretical model: weaker incumbents appoint a larger proportion of opposition members to the cabinet. While the analysis from the previous section focused on how *past* cooptation behavior influenced the number of presidential candidates, this analysis examines how election results affect the leader's *subsequent*

cooptation decisions. We use the leader's vote share as a proxy for incumbent strength. Leaders who receive a larger vote share are interpreted as beginning their term from a position from strength. In Table 2, the dependent variable is the proportion of opposition members appointed to the cabinet *following* the election.<sup>28</sup>

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<sup>28</sup> The sample size drops because several countries held elections after 2013; they have insufficient cabinet observations to calculate the corresponding incumbent spells.

**Table 2. Weaker Incumbents Appoint More Opposition Members to Cabinet**

	Model 7	Model 8	Model 9
Incumbent vote share	-0.538*** (0.172)	-0.561** (0.231)	-0.627*** (0.206)
Party institutionalization		-0.651*** (0.237)	-0.788** (0.306)
Incumbent party survives founder		-0.006 (0.056)	0.017 (0.067)
Incumbent share of legislature		0.126 (0.196)	0.158 (0.194)
Runoff system			0.007 (0.187)
Ethnic fractionalization			0.002 (0.396)
Runoff system × ethnic fractionalization			0.160 (0.363)
Consecutive presidential elections			-0.003 (0.014)
Liberal democracy			0.036 (0.295)
GDP per capita			0.014 (0.037)
Population			0.018 (0.030)
Oil rents			0.023 (0.021)
Constant	0.575*** (0.125)	0.813*** (0.169)	0.457 (0.579)
Number of observations	87	83	82
Number of countries	32	32	31
R <sup>2</sup>	0.153	0.271	0.335

Note: Pooled OLS regression. Dependent variable is the proportion of opposition members appointed to the cabinet. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

The results in Table 2 corroborate the expectation regarding weaker incumbents. As their relative vote share decreases, reelected incumbents appear to increase the proportion of opposition appointments to the cabinet. The estimated coefficients on incumbent vote share move in the expected negative direction and attain statistical significance at the 0.05 level or better. Model 7 suggests that a strong incumbent who receives nearly 80% of the vote, which is about one standard deviation above the regional mean, is likely to allocate about 15% of cabinet seats to the opposition. By contrast, an incumbent who receives 60% of the vote, about the regional mean, will give about 25% of cabinet seats to the opposition. Models 8 and 9 show that the inclusion of the full set of controls does not change the results.

The results presented in Table 2 remain consistent when we limit the sample to elections without opposition boycotts (Appendix 23). The main results are also insensitive to using random effects, fixed effects, and de-trended version data (Appendix 24 and 25).

### *The Electoral Efficacy of Cooptation*

Is the cooptation strategy effective at keeping incumbents in power? To answer this question, we focus on the subset of weak incumbents, since we show in the last set of regressions that weak incumbents are more likely to pursue the cooptation strategy. Strong incumbents are safe in their reelection bids, regardless of whether they coopt opposition politicians or not, so including strong incumbents in a regression estimating the effect of cooptation on election results would bias the estimate downward. Again, we proxy for incumbent strength using election results. We restrict our attention to incumbents whose first-round vote share fell below the sample mean (61 percent).

We find that weak incumbents who pursue the cooptation strategy are more likely to win elections compared with weak incumbents who do not pursue the cooptation strategy. In Appendix 26, we show that opposition fragmentation can help to secure the incumbent's victory. As the number of presidential candidates increases, so does the likelihood of incumbent victory. Additionally, we show that weak incumbents who appoint opposition politicians to the cabinet are significantly more likely to win reelection compared with weak incumbents who do not.

## **Conclusion**

Patronage politics, long honed as an instrument of authoritarian rule, continues to influence the development of political competition after the transition to multiparty elections. The formal theoretical and empirical analyses presented here help explain why patronage often overshadows the influence of other institutional or structural variables in inducing partisan fragmentation among the opposition. In this respect, our cooptation findings complement previous research on electoral authoritarian regimes by illuminating a specific mechanism by which incumbents can manipulate how inchoate partisan competition evolves. We specifically show that entrenched incumbents can contain the threat posed by multiparty elections by encouraging more, rather than fewer, of their rivals to compete against them.

Our study raises several questions that require further investigation concerning the nature of patronage-based cooptation. Incumbents with finite resources cannot afford to coopt all politicians willing to join their governments. A leader whose rule is based on the distribution of patronage most likely has already assembled an oversized electoral coalition, and further additions to that coalition may require the reallocation of resources, possibly from the patronage awarded to other regime allies or even redirected from a government's social programs. How

incumbents manage the costs associated with this recurrent recalibration, without provoking a revolt among regime allies, is unknown. More importantly, the costs that such an intensive cooptation strategy imposes on institutional development and economic growth remain to be established.

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## APPENDICES

### Democratic Subversion: Elite Cooptation and Opposition Fragmentation

- Appendix 1: Summary of Per-Election Payoffs
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- Appendix 26: Incumbent Election Victory Opposition Fragmentation & Cooptation

**Appendix 1. Summary of Per-Election Payoffs**

	Incumbent (I)	Opposition Leader (L)	Opposition Member (M)
<b>UNIFICATION</b>			
I win, appoint L	$R - d$	$u$	0
I win, inside appointment	$R$	0	0
L win, appoint M	0	$R$	$u$
<b>FRAGMENTATION</b>			
I win, appoint L	$R - d$	$u$	0
I win, appoint M	$R - d$	0	$u$
I win, inside appointment	$R$	0	0
L win, appoint M	0	$R - d$	$u$
L win, inside appointment	0	$R$	0
M win, appoint L	0	$u$	$R - d$
M win, inside appointment	0	0	$R$

Note:  $0 < \max[d, u] < R$ .

## Appendix 2. Model Proofs

### Proof of Proposition 1:

We first show that “fragment” is a weakly dominated strategy for the opposition leader, whereas the opposition member potentially has an incentive to defect to “fragment”. We then show that the opposition member’s expected payoff under fragmentation is larger when outside appointments were made in the past.

If the leader chooses  $f_t^L = 1$ , fragmentation occurs, and each opposition candidate’s expected payoff is:

$$0.5p_t(1)\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 0, 1)u + \\ (1 - p_t(1))0.5[R - D_t(q_t) + p_{t+1}(F_{t+1}(q_t, 1))V_{t+1} + \pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)u].$$

If the leader chooses  $f_t^L = 0$ , then fragmentation occurs if  $f_t^M = 1$ , and unification occurs if  $f_t^M = 0$ .

Under unification, the opposition leader’s expected payoff is

$$p_t(0)\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 0, 0)u + (1 - p_t(0))[R + p_{t+1}(F_{t+1}(0, 1))V_{t+1}].$$

We want to show that:

$$p_t(0)\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 0, 0)u + (1 - p_t(0))[R + p_{t+1}(F_{t+1}(0, 1))V_{t+1}] > \\ 0.5p_t(1)\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 0, 1)u + \\ (1 - p_t(1))0.5[R - D_t(q_t) + p_{t+1}(F_{t+1}(q_t, 1))V_{t+1} + \pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)u].$$

We note that  $\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 0, 0)$  and  $\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 0, 1)$  should be equal, given that the first 4 arguments of both expressions for  $\pi_t$  are identical and that the fourth argument is 0. The 4<sup>th</sup> argument being 0 means that election  $t$  is won by the incumbent, who is unconstrained in choosing  $q_t$ . Given the first 3 arguments of  $\pi_t$ , beliefs about what value a victorious incumbent in

election cycle  $t$  would choose for  $q_t$  should not depend on whether fragmentation occurred or not in that election cycle. This means that the first term on the left-hand side (LHS) of the preceding inequality exceeds the first term on the right-hand side (RHS) of the inequality, given that  $0.5p_t(1) < 0.5 \leq p_t(0)$ .

Thus, it is sufficient (but not necessary) to show that

$$(1 - p_t(0))[R + p_{t+1}(F_{t+1}(0,1))V_{t+1}] > (1 - p_t(1))0.5[R - D_t(q_t) + p_{t+1}(F_{t+1}(q_t,1))V_{t+1} + \pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)u].$$

Given that  $p_t(0) < p_t(1)$ , the first term of the product on the LHS of the preceding inequality exceeds the first term of the product on the RHS. What remains on the LHS is the payoff for winning the election as an opposition leader, and what remains on the RHS is the expected payoff that incorporates both the possibility of winning (as an opposition leader) and losing the election. That would seem to suggest that what remains of the LHS of the preceding inequality exceeds what remains of the RHS, particularly because the RHS subtracts  $D_t(q_t)$  whereas the LHS does not. A potential problem, however, is that  $p_{t+1}(F_{t+1}(0,1))$  is on the LHS whereas a different term  $p_{t+1}(F_{t+1}(q_t,1))$  is on the RHS. There are only 4 possible combinations of values for these 2 terms, and 3 of those combinations imply that the preceding inequality is obviously satisfied. The only interesting case involves  $p_{t+1}(F_{t+1}(0,1)) = p_{t+1}(0)$  and  $p_{t+1}(F_{t+1}(q_t,1)) = p_{t+1}(1)$ .

In that case we can rewrite the preceding inequality as:

$$(1 - p_t(0))[R + p_{t+1}(0)V_{t+1}] > (1 - p_t(1))0.5[R - D_t(q_t) + p_{t+1}(1)V_{t+1} + \pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)u].$$

This can be rewritten as:

$$\begin{aligned} (1 + p_t(1))R + D_t(q_t) + \left(2p_t(0) + (p_t(1))^2\right)V_{t+1} + p_t(1)\pi u \\ > 2p_t(0)R + p_t(1)D_t(q_t) + \left(2(p_t(0))^2 + p_t(1)\right)V_{t+1} + \pi u \end{aligned}$$

The coefficients of  $R$ ,  $D_t(q_t)$ , and  $V_{t+1}$  on the LHS exceed those on the RHS. The opposite is true for the coefficient of  $u$ . But  $R > u$ , and the difference between the  $R$  coefficients on both sides of the inequality exceeds the difference between the  $u$  coefficients, so the preceding inequality holds.

Under unification, the leader enjoys a higher probability of winning than under fragmentation, because he must only defeat one opponent rather than two. Moreover, conditional on losing, his chances of getting the administrative job are higher than under fragmentation; this is because if  $q_t = 1$  the leader gets the position with certainty under unification but only with probability 0.5 under fragmentation. Thus, conditional on  $f_t^M = 0$ , the leader's expected payoff from choosing  $f_t^L = 0$  is strictly higher than from choosing  $f_t^L = 1$ , thereby establishing that strategies involving  $f_t^L = 1$  are weakly dominated.

Under fragmentation, the opposition member's expected payoff is:

$$0.5p_t(1)\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 0, 1)u + (1 - p_t(1))0.5[R - D_t(q_t) + p_{t+1}(F_{t+1}(q_t, 1))V_{t+1} + \pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)u].$$

If the member observes  $q_{t-1} = 1$ , he infers that the incumbent would choose  $q_t = 1$  in the event of an incumbent victory. Therefore,  $\pi_t(1, N_{t-1}, F_{t-1}, 1, 1) > \pi_t(0, N_{t-1}, F_{t-1}, 1, 1)$ . The opposition member's expected payoff under fragmentation is larger when the incumbent has made an outside appointment in the past,  $q_{t-1} = 1$ . This does not necessarily mean that the opposition member will choose to fragment – this proposition simply observes that opposition fragmentation is more likely when outside appointments were made in the past because the opposition member's expected payoff of fragmentation is larger when  $q_{t-1} = 1$ , compared to when  $q_{t-1} = 0$ .

**Proof of Proposition 2:**

We first address the *Fragmentation Equilibrium* and use backward induction. The problem in period 3 of election cycle  $t$  involves finding optimal choices for the election winner by solving a discrete-time, stationary dynamic program. There are no constrained winners in a fragmentation equilibrium, so we focus only on unconstrained winners. The unconstrained winner chooses  $q_t$  to maximize  $V_t$ , where:

$$V_t = R - D_t(q_t) + p_{t+1}(F_{t+1}(q_t, N_t))V_{t+1}$$

Stationarity of the problem implies  $V_t = V_{t+1}$ , so  $V_t = \frac{R - D_t(q_t)}{1 - p_{t+1}(F_{t+1}(q_t, N_t))}$ .

Denoting  $V_t$  as a function of  $q_t$ , the unconstrained winner chooses  $q_t = 1$  if  $V_t(1) > V_t(0)$ , or if:

$$\frac{R - d}{1 - p_{t+1}(F_{t+1}(1, N_t))} > \frac{R}{1 - p_{t+1}(F_{t+1}(0, N_t))}$$

Therefore, the unconstrained winner chooses  $q_t = 0$  if  $V_t(1) < V_t(0)$ , or if:

$$\frac{R - d}{1 - p_{t+1}(F_{t+1}(1, N_t))} < \frac{R}{1 - p_{t+1}(F_{t+1}(0, N_t))}$$

Rewriting  $V_t(1) > V_t(0)$  yields:

$$(R - d)[1 - p_{t+1}(F_{t+1}(0, N_t))] > R[1 - p_{t+1}(F_{t+1}(1, N_t))].$$

In order for the inequality to hold, it needs to be the case that  $F_{t+1}(1, N_t) = 1$  and  $F_{t+1}(0, N_t) = 0$ .<sup>29</sup>

There are 4 possible combinations of values for  $F_{t+1}(1, N_t)$  and  $F_{t+1}(0, N_t)$ , and 3 of them lead to failure of the preceding inequality. If  $F_{t+1}(1, N_t)$  and  $F_{t+1}(0, N_t)$  are either both 0 or both 1, then the terms in square brackets on both sides of the preceding inequality are identical and drop out, giving  $R - d > R$ , which is false. The preceding inequality also fails if  $F_{t+1}(1, N_t) = 0$  and

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<sup>29</sup> The required conditions for  $F_{t+1}(1, N_t) = 1$  and  $F_{t+1}(0, N_t) = 0$  are stated at the end of the portion of the proof that concerns the fragmentation equilibrium. The discussion is deferred until then because it relies on period-1 actions, which are not covered until the end of the backward induction argument.

$F_{t+1}(0, N_t) = 1$ . It only holds when  $1 - p_{t+1}(1)$  appears in the square brackets in the inequality's RHS and  $1 - p_{t+1}(0)$  appears in the square brackets in the inequality's LHS, a situation which is ensured by  $F_{t+1}(1, N_t) = 1$  and  $F_{t+1}(0, N_t) = 0$ , two conditions to be discussed shortly.

Using this fact and the stationarity of the problem, the preceding inequality simplifies to

$$p(0) \leq \frac{Rp(1) - d}{R - d}$$

Since there are no choice problems in period 2, consider period 1. We assume the leader's weakly dominated strategy will not be played in equilibrium, so we restrict our attention to  $f_t^L = 0$ , meaning that the member's decision determines whether the opposition fragments or unifies, i.e.,  $F_t(q_{t-1}, N_{t-1}) = f_t^M$ . The member chooses  $f_t^M = 1$  if:

$$0.5p_t(1)\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 0, 1)u +$$

$$(1 - p_t(1))0.5[R - D_t(q_t) + p_{t+1}(F_{t+1}(q_t, 1))V_{t+1} + \pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)u] \geq (1 - p_t(0))u.$$

This condition can be rewritten based on the following four facts. First,  $q_t = 1$  in the equilibrium in part (i), so  $D_t(q_t) = d$ . Second,  $F_{t+1}(q_t, 1) = 1$  on the LHS of the preceding inequality, since the member faces the same choice problem in each election cycle, so that if  $f_t^M = F_t = 1$  is optimal in election  $t$  it must also be optimal in election  $t+1$ , so  $p_{t+1}(F_{t+1}(q_t, 1)) = p(1)$ . Third,

$$V_{t+1} = \frac{R - D_{t+1}(q_{t+1})}{1 - p_{t+2}(F_{t+2}(q_{t+1}, N_{t+1}))}$$

or

$$V_{t+1} = \frac{R - d}{1 - p_{t+2}(1)}$$

using earlier facts.

Fourth,  $\pi_t(1, N_{t-1}, F_{t-1}, 0, 1) = \pi_t(1, N_{t-1}, F_{t-1}, 1, 1) = 1$  in the equilibrium, because all election winners are unconstrained, so if they choose  $q_{t-1} = 1$  they will also choose  $q_t = 1$ . Using these four facts along with the stationarity of the problem, the condition for  $f_t^M = 1$  can be rewritten as:

$$0.5p(1)u + (1 - p(1))0.5 \left[ R - d + u + \frac{p(1)(R - d)}{1 - p(1)} \right] \geq (1 - p(0))u$$

which simplifies to:

$R \geq d + (1 - 2p(0))u$ . Therefore, the condition ensuring that unconstrained winners choose  $q_t = 1$  and that members choose  $f_t^M = 1$  (so that fragmentation occurs) is:

$$R \geq \max \left[ \frac{d(1 - p(0))}{p(1) - p(0)}, d + (1 - 2p(0))u \right]$$

Given that  $p(0) \geq 1/2$ , this condition reduces to

$$p(0) \leq \frac{Rp(1) - d}{R - d}$$

Finally, and before turning to the unification equilibrium, consider the conditions required for  $F_{t+1}(1, N_t) = 1$  and  $F_{t+1}(0, N_t) = 0$ . The first of these expressions says that, regardless of who wins election  $t$ , if that unconstrained winner chooses to appoint outside the party in election  $t$  then fragmentation will occur in election  $t+1$ . Fragmentation in election  $t+1$  requires that the opposition member played “fragment”, so we must verify that this choice will indeed be made given that the opposition leader plays “unify”.

The member chooses  $f_{t+1}^M = 1$  if (substituting  $q_t = 1$  into the expression below):

$$0.5p_{t+1}(1)\pi_{t+1}(1, N_t, F_t, 0, 1)u + (1 - p_{t+1}(1))0.5[R - D_{t+1}(q_{t+1}) + p_{t+2}(F_{t+2}(q_{t+1}, 1))V_{t+2} + \pi_{t+1}(1, N_t, F_t, 1, 1)u] \geq (1 - p_{t+1}(0))u.$$

All election winners are unconstrained, so if they choose  $q_{t-1} = 1$  then  $q_t = 1$ . Thus,

$\pi_{t+1}(1, N_t, F_t, 0, 1) = 1$ , which implies that the first term on the LHS of the preceding inequality is at least as large as the RHS, so  $F_{t+1}(1, N_t) = 1$ .

The second expression, i.e.,  $F_{t+1}(0, N_t) = 0$ , is less straightforward because it involves the off-the-equilibrium-path move  $q_t = 0$ . The expression must hold both for  $N_t = 1$  and for  $N_t = 0$ . If the off-path move  $q_t = 0$  is played, then it must be (given the stated equilibrium profile) that the

opposition member plays the off-path move  $f_t^M = 0$ . Given the opposition leader's behavior in the equilibrium profile (i.e.,  $f_t^L = 0$ ), we then have  $F_t = 0$ . If  $N_t = 1$ , the rules of the game require  $q_t = 0$ . This yields  $F_{t+1}(0,1) = 0$ , so the expression of interest holds when  $N_t = 1$ . But if  $N_t = 0$ , then the equilibrium profile requires a choice of  $q_t = 1$  rather than  $q_t = 0$ , so in the absence of further assumptions nothing could be said about  $F_{t+1}(0,0)$ . We therefore assume, as noted earlier, that whenever the opposition member plays off the equilibrium path in election cycle  $t$ , the incumbent plays  $q_t = 0$ . This assumption ensures  $F_{t+1}(0,0) = 0$ , and therefore  $F_{t+1}(0, N_t) = 0$ .

Now we address the *Unification Equilibrium*. The condition required for unconstrained winners to choose  $q_t = 0$  is:

$$(R - d)[1 - p_{t+1}(F_{t+1}(0, N_t))] < R[1 - p_{t+1}(F_{t+1}(1, N_t))].$$

When does this inequality hold?  $F_{t+1}$  must be either 1 or 0, so there are 4 possible combinations of values for the terms in square brackets on both sides of the inequality:

Combination	LHS term in [ ] is ...	RHS term in [ ] is ...	Inequality
1	$1 - p_{t+1}(1)$	$1 - p_{t+1}(1)$	Holds (reduces to $R - d < R$ )
2	$1 - p_{t+1}(1)$	$1 - p_{t+1}(0)$	Holds
3	$1 - p_{t+1}(0)$	$1 - p_{t+1}(1)$	Holds if $d > \left(\frac{p(1)-p(0)}{1-p(0)}\right)R$ .
4	$1 - p_{t+1}(0)$	$1 - p_{t+1}(0)$	Holds (reduces to $R - d < R$ )

Therefore, the inequality holds if  $d$  is sufficiently large.

The member chooses  $f_t^M = 0$  if:

$$0.5p_t(1)\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 0, 1)u + (1 - p_t(1))0.5[R - D_t(q_t) + p_{t+1}(F_{t+1}(q_t, 1))V_{t+1} + \pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)u] < (1 - p_t(0))u.$$

This condition can be rewritten based on the following three facts. First,  $q_t = 0$  in the equilibrium in part (ii), so  $D_t(q_t) = 0$ . Second,  $F_{t+1}(q_t, 1) = 0$  since the member faces the same choice problem

in each election, so that if  $f_t^M = F_t = 0$  is optimal in election cycle  $t$  it must also be optimal in  $t+1$ , so  $p_{t+1}(F_{t+1}(q_t, 1)) = p(0)$ . Third,

$$V_{t+1} = \frac{R - D_{t+1}(q_{t+1})}{1 - p_{t+2}(F_{t+2}(q_{t+1}, N_{t+1}))}$$

or

$$V_{t+1} = \frac{R}{1 - p_{t+2}(0)}$$

using earlier facts. Using these three facts along with the stationarity of the problem, the condition for  $f_t^M = 0$  can be simplified to:

$$\begin{aligned} p_t(1)\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 0, 1)u + (1 - p_t(1)) \left[ R + \frac{p_{t+1}(0)R}{1 - p_{t+2}(0)} + \pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)u \right] \\ < 2(1 - p_t(0))u \end{aligned}$$

This can be simplified further by noting that  $\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 0, 1) = \pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)$  given that in both cases the winner is unconstrained. So we have:

$$R(1 - p_t(1)) \left[ 1 + \frac{p_{t+1}(0)}{1 - p_{t+2}(0)} \right] < [2(1 - p_t(0)) - (1 + p_t(1))\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)]u$$

Recognizing the stationarity of the problem, this can be rewritten as:

$$\frac{R}{u} < \frac{2(1 - p(0)) - (1 + p(1))\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)}{(1 - p(1)) \left[ 1 + \frac{p(0)}{1 - p(0)} \right]}$$

Recall that the condition ensuring that unconstrained winners choose  $q_t = 0$  is

$$(R - d)[1 - p_{t+1}(F_{t+1}(0, N_t))] < R[1 - p_{t+1}(F_{t+1}(1, N_t))], \text{ or}$$

$$R[p_{t+1}(F_{t+1}(1, N_t)) - p_{t+1}(F_{t+1}(0, N_t))] < d[1 - p_{t+1}(F_{t+1}(0, N_t))].$$

Combining the two conditions on  $R$  yields the following condition required for existence of the SPNE described in (ii):

$$R < \min[k_1, k_2] \text{ where}$$

$$k_1 = \frac{u[2(1-p(0)) - (1-p(1))\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)]}{(1-p(1))\left[1 + \frac{p(0)}{1-p(0)}\right]}$$

and

$$k_2 = \frac{d[1 - p_{t+1}(F_{t+1}(0, N_t))]}{p_{t+1}(F_{t+1}(1, N_t)) - p_{t+1}(F_{t+1}(0, N_t))}$$

Note that

$$k_2 = \frac{d[1 - p_{t+1}(F_{t+1}(0, N_t))]}{p_{t+1}(F_{t+1}(1, N_t)) - p_{t+1}(F_{t+1}(0, N_t))}$$

is identical to the condition  $d > \left(\frac{p(1)-p(0)}{1-p(0)}\right)R$  specified earlier.

If  $k_2 \leq k_1$  then the thresholds for  $R$  in parts (i) and (ii) coincide, whereas they differ if  $k_2 > k_1$ , with no SPNE in pure strategies existing for values of  $R$  in the interval  $k_1 < R < k_2$ . Proposition 2's condition that  $\frac{d}{u}$  be sufficiently small guarantees that  $k_1 < k_2$ . The specific condition, which ensures that the SPNE exists, is as follows:

$$\frac{d}{u} > \frac{[2(1-p(0)) - (1-p(1))\pi_t(q_{t-1}, N_{t-1}, F_{t-1}, 1, 1)][p_{t+1}(F_{t+1}(1, N_t)) - p_{t+1}(F_{t+1}(0, N_t))]}{(1-p(1))\left[1 + \frac{p(0)}{1-p(0)}\right][1 - p_{t+1}(F_{t+1}(0, N_t))]}$$

*Q.E.D.*

### Appendix 3. Descriptive Statistics

	Mean	SD	Min	Max	N
Presidential candidates	8.644	5.752	1	33	135
Presidential candidates >0.5%	5.044	2.524	1	15	135
Incumbent vote share	0.613	0.186	0.270	1	134
Incumbent election victory	0.818	0.387	0	1	132
Opposition participation in prior cabinet	0.622	0.487	0	1	135
Opposition proportion of prior cabinet	0.232	0.263	0	0.923	135
Party institutionalization	0.476	0.140	0.196	0.854	134
Incumbent party survives founder	0.356	0.480	0	1	135
Incumbent share of legislature	0.673	0.185	0.187	1	130
Runoff system	0.711	0.455	0	1	135
Ethnic fractionalization (Posner)	0.419	0.211	0	0.800	132
Ethnic fractionalization (Fearon)	0.759	0.151	0.180	0.953	131
Consecutive presidential elections	4.600	2.847	0	12	135
Liberal democracy	0.283	0.159	0.0520	0.635	135
Electoral democracy	0.419	0.156	0.0950	0.744	135
Political rights	3.652	1.733	1	7	135
GDP per capita (log)	6.801	0.928	5.170	9.896	134
Population (log)	16.05	1.157	13.15	19.01	134
Oil rents (log)	0.301	1.570	-7.832	3.900	135
Election boycott	0.185	0.390	0	1	135
Cabinet size	103.6	59.03	13	412	135
Post-conflict regime	0.178	0.384	0	1	135
Liberation regime	0.126	0.333	0	1	135

**Appendix 4. Number of Presidential Candidates  
[Alternate Models]**

	Pooled OLS	Random Effects	Fixed Effects	Detrended
Opposition proportion in prior cabinet	7.717*** (1.984)	6.428*** (1.655)	4.015** (1.831)	3.878** (1.805)
Party institutionalization	-5.606 (3.494)	-5.281 (3.440)	1.075 (9.480)	-1.288 (9.204)
Incumbent party survives founder	2.379** (1.079)	1.669 (1.235)	0.587 (1.822)	-0.860 (1.796)
Incumbent share of legislature	-4.012 (2.419)	-2.909 (2.616)	0.347 (3.445)	-0.512 (3.445)
Constant	11.336*** (2.289)	10.990*** (2.216)	6.729 (5.756)	-0.037 (0.110)
Number of observations	130	130	130	130
Number of countries	35	35	35	35
R <sup>2</sup> (within)		0.024	0.031	
R <sup>2</sup> (between)		0.402	0.244	
R <sup>2</sup> (overall)	0.225	0.223	0.150	0.030

Note: Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

### Appendix 5. Sensitivity Analysis

We conduct the sensitivity analysis test developed by Oster (2017) to estimate the level of unobserved confounding necessary for a researcher to mistakenly detect a significant effect when the true effect is zero. This test calculates the ratio of selection on unobservables to selection on observables for various levels of  $R^2$  that would be necessary for the estimated effect of the main independent variable to disappear.

$R^2$ Max	Ratio of Selection on Unobservables to Selection on Observables
0.4	6.8
0.5	2.8
0.6	1.8
0.7	1.3

For  $R^2$  values between 0.4 and 0.7, we find that observations would have to select into the cooptation sample on the basis of unobserved characteristics at a rate of 1.3 to 6.8 times more than all the observable characteristics for the estimated effect of cooptation to disappear. Only when assuming  $R^2$  levels greater than 0.8 do unobservables play an equally important role as observables in driving selection that would lead us to mistakenly detect a significant effect of cooptation when the true effect is zero.

**Appendix 6. Number of Presidential Candidates  
[Random Effects Analysis]**

	Model 1	Model 2	Model 3
Opposition proportion in prior cabinet	6.796*** (1.569)	6.428*** (1.655)	4.392*** (1.351)
Party institutionalization		-5.281 (3.440)	-10.917** (4.410)
Incumbent party survives founder		1.669 (1.235)	1.189 (1.025)
Incumbent share of legislature		-2.909 (2.616)	-3.217 (2.764)
Runoff system			-0.126 (2.978)
Ethnic fractionalization			-1.952 (4.697)
Runoff system × ethnic fractionalization			2.916 (7.644)
Consecutive presidential elections			0.264 (0.259)
Liberal democracy			7.307* (4.160)
GDP per capita			0.875 (0.577)
Population			1.144* (0.627)
Oil			0.791*** (0.268)
Constant	7.137*** (0.570)	10.990*** (2.216)	-13.316 (11.528)
Number of observations	135	130	126
Number of countries	35	35	34
R <sup>2</sup> (within)	0.024	0.024	0.118
R <sup>2</sup> (between)	0.313	0.402	0.610
R <sup>2</sup> (overall)	0.169	0.223	0.385

Note: Random effects regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 7. Number of Presidential Candidates  
[Accounting for Election Boycotts]**

	Control for Boycotts	Exclude Boycotts
Opposition proportion in prior cabinet	5.879*** (1.560)	4.756** (1.800)
Election boycott	-3.633*** (1.014)	
Party institutionalization	-14.617*** (4.380)	-17.021*** (5.775)
Incumbent party survives founder	1.448 (0.908)	1.360 (0.968)
Incumbent share of legislature	-1.389 (2.936)	-0.630 (3.525)
Runoff system	0.827 (2.576)	-0.488 (3.121)
Ethnic fractionalization	-0.834 (4.213)	-2.102 (4.628)
Runoff system × ethnic fractionalization	0.853 (6.325)	3.986 (7.661)
Consecutive presidential elections	0.120 (0.224)	0.189 (0.259)
Liberal democracy	6.936* (4.041)	5.594 (4.442)
GDP per capita	1.506** (0.578)	1.638** (0.701)
Population	1.034 (0.618)	1.023 (0.647)
Oil	0.668*** (0.234)	0.641** (0.268)
Constant	-15.004 (11.835)	-14.043 (13.151)
Number of observations	126	106
Number of countries	34	33
R <sup>2</sup>	0.431	0.409

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 8. Number of Presidential Candidates  
[Substituting Fearon Ethnic Fractionalization]**

Opposition proportion in prior cabinet	5.996*** (1.584)
Party institutionalization	-12.017*** (3.732)
Incumbent party survives founder	1.140 (1.042)
Incumbent share of legislature	-2.490 (2.520)
Runoff system	2.894 (3.050)
Ethnic fractionalization (Fearon)	3.806* (2.110)
Runoff system × ethnic fractionalization (Fearon)	-2.396 (4.086)
Consecutive presidential elections	0.138 (0.235)
Liberal democracy	7.705* (4.352)
GDP per capita	1.471** (0.621)
Population	0.931 (0.657)
Oil	0.637** (0.272)
Constant	-17.517 (12.852)
Number of observations	125
Number of countries	34
R <sup>2</sup>	0.395

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 9. Number of Presidential Candidates**  
**[Substituting Electoral Democracy and Political Rights Indices]**

	Electoral Democracy	Political Rights
Opposition proportion in prior cabinet	5.473*** (1.531)	6.385*** (1.579)
Party institutionalization	-11.075** (4.264)	-10.290** (4.834)
Incumbent party survives founder	1.393 (0.975)	1.326 (0.969)
Incumbent share of legislature	-3.451 (2.769)	-3.177 (2.883)
Runoff system	0.060 (2.680)	0.682 (2.845)
Ethnic fractionalization	-1.316 (4.260)	-1.058 (4.375)
Runoff system × ethnic fractionalization	2.218 (6.520)	1.523 (6.588)
Consecutive presidential elections	0.166 (0.238)	0.282 (0.251)
Electoral democracy	8.882** (3.979)	
Political rights		0.516 (0.338)
GDP per capita	1.151* (0.589)	1.366** (0.641)
Population	1.032 (0.649)	1.178* (0.681)
Oil	0.725** (0.276)	0.567* (0.283)
Constant	-14.944 (12.570)	-18.518 (13.440)
Number of observations	126	126
Number of countries	34	34
R <sup>2</sup>	0.396	0.380

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 10. Number of Presidential Candidates  
[Accounting for Cabinet Size]**

	Model 1	Model 2	Model 3
Opposition proportion in prior cabinet	8.995*** (1.998)	7.895*** (1.854)	5.980*** (1.603)
Cabinet size	-0.000 (0.010)	0.004 (0.009)	0.001 (0.010)
Party institutionalization		-5.633 (3.525)	-11.050** (4.452)
Incumbent party survives founder		2.362** (1.097)	1.608 (1.003)
Incumbent share of legislature		-4.375* (2.505)	-3.535 (2.851)
Runoff system			0.342 (2.753)
Ethnic fractionalization			-1.406 (4.542)
Runoff system × ethnic fractionalization			1.925 (6.534)
Consecutive presidential elections			0.194 (0.234)
Liberal democracy			8.302* (4.350)
GDP per capita			1.048 (0.635)
Population			0.970 (0.721)
Oil			0.738*** (0.268)
Constant	6.582*** (1.297)	11.107*** (2.489)	-12.374 (13.259)
Number of observations	135	130	126
Number of countries	35	35	34
R <sup>2</sup>	0.169	0.227	0.392

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 11. Number of Presidential Candidates  
[Dropping First Post-Cold War Elections]**

	Model 1	Model 2	Model 3
Opposition proportion in prior cabinet	7.457*** (2.550)	7.249*** (2.452)	6.751*** (1.884)
Party institutionalization		-7.793* (4.342)	-11.929** (5.191)
Incumbent party survives founder		3.624** (1.428)	2.512* (1.354)
Incumbent share of legislature		0.611 (2.270)	2.595 (2.392)
Runoff system			2.719 (2.550)
Ethnic fractionalization			2.880 (4.367)
Runoff system × ethnic fractionalization			-3.474 (5.647)
Consecutive presidential elections			0.316 (0.261)
Liberal democracy			8.843** (3.400)
GDP per capita			1.288* (0.731)
Population			0.698 (0.813)
Oil			0.374 (0.373)
Constant	7.007*** (0.638)	8.921*** (2.106)	-16.756 (14.759)
Number of observations	100	98	95
Number of countries	33	33	31
R <sup>2</sup>	0.130	0.224	0.440

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 12. Number of Presidential Candidates**  
**[Lagging Number of Presidential Candidates]**

	Model 1	Model 2	Model 3
Opposition proportion in prior cabinet	5.163** (2.165)	5.345** (2.250)	6.338*** (2.059)
Lag of presidential candidates	0.322** (0.119)	0.252** (0.114)	0.075 (0.094)
Party institutionalization		-6.347 (3.938)	-11.154** (4.937)
Incumbent party survives founder		2.692** (1.248)	2.329* (1.333)
Incumbent share of legislature		1.368 (2.176)	2.838 (2.459)
Runoff system			2.392 (2.467)
Ethnic fractionalization			2.564 (4.191)
Runoff system × ethnic fractionalization			-2.799 (5.507)
Consecutive presidential elections			0.313 (0.253)
Liberal democracy			8.729** (3.356)
GDP per capita			1.090 (0.693)
Population			0.563 (0.723)
Oil			0.353 (0.361)
Constant	5.043*** (0.913)	6.544*** (2.185)	-13.909 (13.069)
Number of observations	99	97	94
Number of countries	33	33	31
R <sup>2</sup>	0.235	0.284	0.445

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 13. Number of Presidential Candidates**  
**[Limiting Sample to Presidential Candidates >0.5%]**

	Model 1	Model 2	Model 3
Opposition proportion in prior cabinet	2.877*** (0.869)	1.611** (0.757)	1.642** (0.660)
Party institutionalization		-2.411 (1.955)	-0.834 (1.352)
Incumbent party survives founder		-0.039 (0.465)	-0.312 (0.489)
Incumbent share of legislature		-3.199*** (1.070)	-3.330*** (1.201)
Runoff system			4.369*** (0.805)
Ethnic fractionalization			4.380*** (1.038)
Runoff system × ethnic fractionalization			-5.300*** (1.737)
Consecutive presidential elections			0.212** (0.084)
Liberal democracy			-1.010 (2.207)
GDP per capita			-0.265 (0.216)
Population			-0.646*** (0.178)
Oil			0.272** (0.104)
Constant	4.378*** (0.254)	7.925*** (1.118)	15.304*** (3.319)
Number of observations	135	130	126
Number of countries	35	35	34
R <sup>2</sup>	0.090	0.167	0.333

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 14. Number of Presidential Candidates  
[Accounting for Election Fraud and Election Violence]**

	Model 1	Model 2
	Opposition Cooptation	Control for Fraud & Violence
Opposition proportion in prior cabinet		5.791*** (1.557)
Election free and fair	-0.008 (0.030)	0.246 (0.511)
Election violence	0.004 (0.033)	0.359 (0.458)
Party institutionalization		-10.630** (4.416)
Incumbent party survives founder		1.555 (1.002)
Incumbent share of legislature		-3.563 (2.717)
Runoff system		0.460 (2.801)
Ethnic fractionalization		-1.077 (4.619)
Runoff system × ethnic fractionalization		1.645 (6.585)
Consecutive presidential elections		0.203 (0.240)
Liberal democracy		5.410 (5.829)
GDP per capita		1.175** (0.549)
Population		1.108* (0.623)
Oil		0.738** (0.283)
Constant	0.248** (0.091)	-15.014 (11.214)
Number of observations	134	125
Number of countries	35	34
R <sup>2</sup>	0.001	0.387

Note: Pooled OLS regression. Dependent variable in Model 1 is the opposition proportion in the cabinet. Dependent variable in Model 2 is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 15. Number of Presidential Candidates**  
**[Limiting Sample to Less Institutionalized Party Systems]**

	Model 1	Model 2	Model 3
Opposition proportion in prior cabinet	10.257*** (2.263)	9.356*** (2.335)	5.879*** (1.762)
Party institutionalization		-15.254 (10.571)	-18.099 (11.954)
Incumbent party survives founder		2.162 (1.989)	1.981 (1.995)
Incumbent share of legislature		-3.208 (3.391)	-2.424 (4.365)
Runoff system			-4.351 (8.785)
Ethnic fractionalization			-8.880 (13.108)
Runoff system × ethnic fractionalization			11.583 (16.847)
Consecutive presidential elections			0.570* (0.294)
Liberal democracy			9.641* (5.072)
GDP per capita			-0.255 (1.032)
Population			1.541 (1.832)
Oil			0.613 (0.416)
Constant	6.599*** (0.648)	13.744*** (3.992)	-9.113 (17.865)
Number of observations	69	67	66
Number of countries	23	23	22
R <sup>2</sup>	0.214	0.262	0.435

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 16. Number of Presidential Candidates  
[Limiting Sample to Runoff Systems]**

	Model 1	Model 2	Model 3
Opposition proportion in prior cabinet	10.968*** (2.275)	9.315*** (2.286)	6.136*** (1.958)
Party institutionalization		-3.676 (3.720)	-15.014*** (4.737)
Incumbent party survives founder		2.065 (1.555)	1.837 (1.241)
Incumbent share of legislature		-7.035** (3.429)	-5.990 (3.835)
Ethnic fractionalization			1.186 (3.424)
Consecutive presidential elections			-0.028 (0.280)
Liberal democracy			11.817** (4.877)
GDP per capita			1.464** (0.667)
Population			1.032 (0.674)
Oil			0.759** (0.286)
Constant	6.352*** (0.530)	12.446*** (2.814)	-12.771 (12.800)
Number of observations	96	93	89
Number of countries	30	30	29
R <sup>2</sup>	0.224	0.285	0.444

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 17. Number of Presidential Candidates  
[Limiting Sample to Elections with First Round Only]**

	Model 1	Model 2	Model 3
Opposition proportion in prior cabinet	5.202** (1.913)	5.274** (1.941)	3.846*** (1.366)
Party institutionalization		-0.857 (2.552)	-1.654 (3.150)
Incumbent party survives founder		2.401** (1.045)	0.722 (1.035)
Incumbent share of legislature		-1.840 (2.561)	-0.674 (2.579)
Runoff system			3.212 (2.128)
Ethnic fractionalization			2.872 (3.200)
Runoff system × ethnic fractionalization			-7.390* (4.228)
Consecutive presidential elections			-0.005 (0.212)
Liberal democracy			3.855 (3.607)
GDP per capita			1.676** (0.632)
Population			1.603** (0.701)
Oil			0.839** (0.392)
Constant	6.524*** (0.528)	7.415*** (1.929)	-32.359** (13.308)
Number of observations	109	106	102
Number of countries	32	32	31
R <sup>2</sup>	0.075	0.139	0.424

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 18. Number of Presidential Candidates  
[Limiting Sample to Runoff Systems with No Second Round]**

	Model 1	Model 2	Model 3
Opposition proportion in prior cabinet	7.109*** (2.171)	7.315*** (2.425)	5.045** (1.852)
Party institutionalization		2.272 (3.065)	-3.925 (4.281)
Incumbent party survives founder		1.788 (1.447)	0.966 (1.230)
Incumbent share of legislature		-4.755 (3.291)	-2.914 (3.660)
Ethnic fractionalization			-4.174 (2.453)
Consecutive presidential elections			-0.237 (0.251)
Liberal democracy			7.017 (5.370)
GDP per capita			1.865** (0.785)
Population			1.703** (0.723)
Oil			0.759* (0.410)
Constant	6.110*** (0.551)	7.771*** (2.534)	-29.817* (15.259)
Number of observations	70	69	65
Number of countries	26	26	25
R <sup>2</sup>	0.125	0.189	0.481

Note: Pooled OLS regression. Dependent variable is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

### Appendix 19. Incumbent Election Victory in Runoff System

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Number of presidential candidates	0.015*
	(0.008)
Party institutionalization	0.857*
	(0.433)
Incumbent party survives founder	-0.083
	(0.068)
Incumbent share of legislature	0.597**
	(0.273)
Ethnic fractionalization	0.137
	(0.286)
Consecutive presidential elections	-0.004
	(0.020)
Liberal democracy	-0.777***
	(0.249)
GDP per capita	-0.018
	(0.056)
Population	-0.004
	(0.042)
Oil	-0.027**
	(0.012)
Constant	0.275
	(0.736)
Number of observations	87
Number of countries	29
R <sup>2</sup>	0.203

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Note: Pooled OLS regression. Dependent variable is incumbent election victory. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

## **Appendix 20. Incumbent Election Victory in Second Round of Runoff Systems**

	Model 1	Model 2
Number of presidential candidates	2.400** (0.978)	3.147*** (0.726)
Opposition proportion in prior cabinet	0.593* (0.322)	0.758** (0.316)
Party institutionalization		1.138** (0.503)
Incumbent party survives founder		-0.245 (0.201)
Incumbent share of legislature		-0.538* (0.265)
Ethnic fractionalization		0.261 (0.550)
Consecutive presidential elections		0.067** (0.023)
Liberal democracy		-1.763*** (0.412)
GDP per capita		-0.205 (0.130)
Population		-0.292*** (0.083)
Oil		-0.003 (0.033)
Constant	-0.673** (0.252)	5.084*** (1.240)
Number of observations	23	22
Number of countries	14	13
R <sup>2</sup>	0.535	0.877

Note: Pooled OLS regression. Dependent variable is incumbent election victory. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 21. Number of Presidential Candidates  
[Accounting for Post-Conflict Regimes]**

	Model 1	Model 2	Model 3
	Cooptation by Post-Conflict	Control for Post-Conflict	Exclude Post- Conflict
Opposition proportion in prior cabinet		6.567*** (1.601)	6.739*** (1.779)
Post-conflict regime	0.277*** (0.078)	-1.282 (1.121)	
Party institutionalization	-0.448* (0.259)	-11.159** (4.330)	-9.751* (5.415)
Incumbent party survives founder	-0.076 (0.059)	1.751 (1.037)	1.936 (1.276)
Incumbent share of legislature	-0.189 (0.130)	-3.259 (2.861)	-0.347 (2.462)
Runoff system	-0.147 (0.199)	0.166 (2.618)	2.172 (2.488)
Ethnic fractionalization	-0.310 (0.398)	-1.458 (4.089)	0.574 (3.780)
Runoff system × ethnic fractionalization	0.324 (0.391)	2.757 (6.319)	-2.787 (6.438)
Consecutive presidential elections	0.011 (0.012)	0.169 (0.230)	0.089 (0.267)
Liberal democracy	0.282 (0.255)	7.440* (4.348)	9.415** (4.508)
GDP per capita	-0.003 (0.037)	0.958* (0.541)	0.970 (0.656)
Population	0.021 (0.031)	0.981 (0.605)	0.881 (0.775)
Oil	0.018 (0.013)	0.753*** (0.259)	0.878*** (0.265)
Constant	0.239 (0.601)	-11.626 (11.282)	-13.922 (15.466)
Number of observations	126	126	103
Number of countries	34	34	28
R <sup>2</sup>	0.301	0.397	0.416

Note: Pooled OLS regression. Dependent variable in Model 1 is the opposition proportion in the cabinet. Dependent variable in Models 2 and 3 is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 22. Number of Presidential Candidates  
[Accounting for Liberation Regimes]**

	Model 1	Model 2	Model 3
	Cooptation by Liberation	Control for Liberation	Exclude Liberation
Opposition proportion in prior cabinet		6.147*** (1.641)	6.289*** (1.702)
Liberation regime	-0.186** (0.071)	0.800 (1.517)	
Party institutionalization	-0.413 (0.302)	-11.508** (4.787)	-11.629* (6.161)
Incumbent party survives founder	-0.045 (0.058)	1.587 (1.015)	1.012 (1.203)
Incumbent share of legislature	-0.183 (0.139)	-3.363 (2.811)	-3.693 (3.171)
Runoff system	-0.136 (0.244)	0.054 (2.680)	-0.585 (3.075)
Ethnic fractionalization	-0.269 (0.447)	-1.770 (4.336)	-3.580 (5.342)
Runoff system × ethnic fractionalization	0.491 (0.435)	2.201 (6.488)	3.561 (7.295)
Consecutive presidential elections	0.002 (0.014)	0.216 (0.239)	0.322 (0.256)
Liberal democracy	0.105 (0.263)	8.305* (4.310)	4.957 (5.107)
GDP per capita	-0.019 (0.035)	1.023* (0.586)	1.157* (0.680)
Population	0.014 (0.030)	1.023 (0.674)	1.504* (0.778)
Oil	0.015 (0.012)	0.774*** (0.255)	0.624** (0.251)
Constant	0.545 (0.547)	-12.812 (12.795)	-19.704 (13.291)
Number of observations	126	126	109
Number of countries	34	34	28
R <sup>2</sup>	0.230	0.394	0.403

Note: Pooled OLS regression. Dependent variable in Model 1 is the opposition proportion in the cabinet. Dependent variable in Models 2 and 3 is the total number of presidential candidates. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 23. Opposition Appointments to Cabinet  
[Excluding Election Boycotts]**

	Model 1	Model 2	Model 3
Incumbent vote share	-0.898*** (0.227)	-0.714** (0.271)	-0.814*** (0.287)
Party institutionalization		-0.674** (0.291)	-0.958** (0.396)
Incumbent party survives founder		-0.022 (0.056)	-0.020 (0.066)
Incumbent share of legislature		0.319 (0.193)	0.332 (0.197)
Runoff system			-0.297* (0.156)
Ethnic fractionalization			-0.243 (0.345)
Runoff system × ethnic fractionalization			0.582* (0.321)
Consecutive presidential elections			-0.007 (0.014)
Liberal democracy			0.147 (0.302)
GDP per capita			0.052 (0.043)
Population			0.022 (0.033)
Oil rents			0.003 (0.020)
Constant	0.744*** (0.145)	0.779*** (0.162)	0.385 (0.603)
Number of observations	70	68	68
Number of countries	28	27	27
R <sup>2</sup>	0.236	0.333	0.419

Note: Pooled OLS regression. Dependent variable is the proportion of opposition members appointed to the cabinet. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 24. Opposition Appointments to Cabinet  
[Alternate Models]**

	Pooled OLS	Random Effects	Fixed Effects	Detrended
Incumbent vote share	-0.561** (0.231)	-0.574*** (0.165)	-0.544*** (0.154)	-0.367*** (0.111)
Party institutionalization	-0.651*** (0.237)	-0.400 (0.285)	0.793 (0.593)	-0.637 (0.523)
Incumbent party survives founder	-0.006 (0.056)	0.019 (0.054)	0.041 (0.060)	-0.036 (0.058)
Incumbent share of legislature	0.126 (0.196)	0.350** (0.178)	0.534** (0.204)	-0.421** (0.189)
Constant	0.813*** (0.169)	0.554*** (0.204)	-0.197 (0.372)	0.001 (0.005)
Number of observations	83	83	83	83
Number of countries	32	32	32	32
R <sup>2</sup> (within)		0.125	0.208	
R <sup>2</sup> (between)		0.166	0.035	
R <sup>2</sup> (overall)	0.153	0.224	0.049	0.164

Note: Random effects regression. Dependent variable is the proportion of opposition members appointed to the cabinet. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

**Appendix 25. Opposition Appointments to Cabinet  
[Random Effects Analysis]**

	Model 1	Model 2	Model 3
Incumbent vote share	-0.326** (0.129)	-0.574*** (0.165)	-0.515*** (0.165)
Party institutionalization		-0.400 (0.285)	-0.393 (0.381)
Incumbent party survives founder		0.019 (0.054)	0.011 (0.068)
Incumbent share of legislature		0.350** (0.178)	0.353** (0.171)
Runoff system			-0.080 (0.085)
Ethnic fractionalization			-0.201 (0.233)
Runoff system × ethnic fractionalization			0.249 (0.188)
Consecutive presidential elections			0.014 (0.020)
Liberal democracy			-0.092 (0.305)
GDP per capita			-0.021 (0.040)
Population			0.059* (0.030)
Oil rents			-0.003 (0.015)
Constant	0.465*** (0.099)	0.554*** (0.204)	-0.249 (0.567)
Number of observations	87	83	82
Number of countries	32	32	31
R <sup>2</sup> (within)	0.030	0.125	0.208
R <sup>2</sup> (between)	0.241	0.166	0.191
R <sup>2</sup> (overall)	0.153	0.224	0.175

Note: Random effects regression. Dependent variable is the proportion of opposition members appointed to the cabinet. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.

## **Appendix 26. Incumbent Election Victory Opposition Fragmentation & Cooptation**

	Opposition Fragmentation	Opposition Cooptation
Number of presidential candidates	0.022** (0.011)	
Opposition proportion in prior cabinet		0.500** (0.210)
Party institutionalization	1.167** (0.521)	1.224** (0.495)
Incumbent party survives founder	-0.132 (0.100)	-0.096 (0.098)
Incumbent share of legislature	0.019 (0.396)	-0.002 (0.417)
Runoff system	-0.017 (0.251)	0.056 (0.326)
Ethnic fractionalization	0.640 (0.389)	0.646 (0.454)
Runoff system × ethnic fractionalization	-0.023 (0.586)	-0.167 (0.750)
Consecutive presidential elections	0.026 (0.030)	0.027 (0.030)
Liberal democracy	-0.841** (0.322)	-0.936*** (0.305)
GDP per capita	-0.040 (0.069)	-0.016 (0.083)
Population	-0.090* (0.045)	-0.078* (0.044)
Oil	-0.032* (0.016)	-0.021 (0.018)
Constant	1.576* (0.917)	1.283 (1.033)
Number of observations	69	69
Number of countries	27	27
R <sup>2</sup>	0.187	0.219

Note: Pooled OLS regression. Dependent variable is incumbent election victory. Robust standard errors clustered by country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10, two-tailed tests.