Elite Cooptation and Opposition Fragmentation in Electoral Authoritarian Regimes

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Abstract: Elections in authoritarian regimes can serve as institutional tools that enable leaders to "divide and conquer" their opponents. In this paper, we propose a specific channel through which autocratic incumbents can coopt their opponents. We argue that such incumbents strategically rotate ministerial appointments before elections to signal the likelihood that they will subsequently invite opposition politicians into government. Through a formal model, we show that this dynamic induces opposition forces to fracture, as opposition politicians prefer to compete for office independently rather than coalescing through established parties, given the possibility of a cabinet position. Employing original data on ministerial cabinets in 36 African countries, we show that a greater rate of pre-electoral cabinet reshuffling is associated with a larger number of opposition candidates in presidential and legislative elections. Our findings suggest that autocratic incumbents can weaken long-term opposition forces through patronage even in the absence of outright electoral fraud.

Introduction

Elections in authoritarian regimes are often viewed as an institutional tool that incumbents use to stay in power. Autocratic leaders use elections as a means to offer power-sharing positions and policy concessions to regime elites and pivotal groups in society (Blaydes 2011; Gandhi 2008; Gandhi and Lust-Okar 2009; Gandhi and Przeworski 2007; Lust-Okar 2005; Lust-Okar 2006). Alternatively, elections can strengthen autocratic rule by providing leaders with information about citizens' policy preferences or signals of dissatisfaction with the regime (Fearon 2011; Magaloni 2006; Malesky and Schuler 2011; Miller 2015).

Elections can also empower incumbents by providing the opportunity to undermine their opponents through the strategic distribution of patronage as a cooptation mechanism. In this paper, we present a specific channel through which elite cooptation prevents the emergence of strong and cohesive opposition coalitions. We argue that the distribution of patronage appointments enables incumbents to minimize the likelihood of losing power by exacerbating the prisoner's dilemma among office-seeking politicians in opposition. Incumbents can attempt to induce the formation of additional parties among their rivals, fragmenting the opposition vote in the process, by signaling their willingness to coopt individual opposition party leaders, allocating offices to them in exchange for their temporary political allegiance.

We formalize this logic using a game theoretic model and show that when opposition leaders are weak relative to the incumbent, as they often are in authoritarian and hybrid regimes, remaining fractured in the hopes of receiving a valuable cabinet position is preferable to trying to defeat the incumbent as a united opposition. The model also illustrates that incumbents are most able to use a divide-and-conquer strategy when they have not made extensive prior commitments to an existing elite. In other words, incumbents who are already deeply entrenched within a highly institutionalized ruling party need to maintain an existing patronage network within their own coalitions, therefore reducing their ability to buy off additional opposition leaders.

We provide empirical evidence of these relationships using original data on regime institutionalization, patronage-based cooptation, and opposition fragmentation in 36 African countries. Sub-Saharan Africa is a uniquely helpful context in which to explore these mechanisms because politics in this region are fundamentally characterized by a tension between informal influence and formal institutional rules. African leaders honed the instruments of patronage to cultivate support for the one-party regimes that emerged after independence (Bratton and van de Walle 1997; Jackson and Rosberg 1982), and their successors have readily adapted this institution to contend with the exigencies of competition in multiparty regimes (van de Walle 2003; Daloz 1999). Even after the introduction of multiparty elections, leaders and parties who were in power during the authoritarian era continue to dominate the electoral arena. These ruling parties typically enjoy legislative super majorities, while opposition parties are marked by high legislative turnover, regardless of electoral system or democratic experience (Manning 2005; Golder and Wantchekon 2004; Kuenzi and Lambright 2001).

To measure patronage-based cooptation, we use data on pre-electoral cabinet volatility. The frequency with which incumbents reshuffle their executive cabinets in the years prior to an election serves as a visible signal of their willingness to engage in cooptation, that is, to make appointments to government regardless of partisan affiliation. Opposition politicians interpret the level of volatility in the cabinet as a signal of the likelihood of being invited to join the executive's government. Thus, cabinet volatility provides individual opposition party leaders with an observable measure of their outside option vis-à-vis electoral coordination with other party leaders, thereby influencing their incentive to retain separate parties. To measure the extent of opposition fragmentation, we use the effective number of presidential candidates and legislative parties in elections. A larger number of presidential candidates and legislatives parties indicates a more fractured opposition.

We find that countries with higher levels of pre-electoral cabinet volatility induce a larger number of both candidates and parties, controlling for electoral rules, ethnic cleavages, and regime type. A one-standard-deviation increase in cabinet volatility is associated with an increase of nearly 0.5 in the effective number of presidential candidates and with an increase of 0.2 in the effective number of legislative parties, *ceteris paribus*. In sum, the strategy of elite cooptation appears to be effective in preventing the consolidation of opposition coalitions in electoral authoritarian regimes.

This paper makes a number of contributions to studies of authoritarian durability, democratic consolidation, and party system institutionalization in developing countries. We build on a nascent literature focusing on elite cooptation within electoral authoritarianism (Gandhi and Buckles 2016) by providing empirical evidence of divide-and-conquer strategies and specifying the conditions under which they are likely to occur. We show that autocratic leaders can often stay in power by subverting formal rules. In fact, our theory suggests that leaders can exploit free and fair elections to amplify their own incumbency advantages, and that they are able to do so *even in the absence* of fraud or explicit rule breaking. This insight has implications for our understanding of democratic consolidation. Our findings suggest that electoral competition may not necessarily become *institutionalized* even when formal electoral institutions are in place (Hassan 2016; Posner and Young 2007). Finally, this paper makes contributions to studies of party system institutionalization in new and transitioning democracies in Africa (Riedl 2015) and provides a complementary explanation of why opposition parties in the region often remain so weak (LeBas 2011).

We proceed by drawing on the African empirical context to describe the redistributive demands that induce patronage-seeking behavior among opposition politicians. We discuss how such dynamics shape elite cooptation and result in opposition fragmentation in electoral authoritarian regimes. This logic is then formalized in a game-theoretic model that demonstrates why opposition leaders are incentivized to favor cooptation over building a unified coalition, and outlines the conditions under which incumbents are more likely to use this strategy of divide and conquer. We then describe the data and methods used in the analysis before discussing the empirical results. We conclude by discussing the value of accounting for patronage dynamics in the analysis of emerging institutions in Africa and other developing regions.

Redistributive Demands and Constraints in African Elections

Electoral support in many African countries is contingent on the ability of politicians to provide voters with a credible offer of access to resources (Bratton 2008; Lindberg 2003; Wantchekon 2003; Banégas 1998). Despite the adoption of democratic constitutions in the early 1990s, the basis for achieving political leadership in many countries is resource intensive rather than programmatic. In this context, politicians attain the status of leaders by satisfactorily paying "the blackmail of the ruled," according to Chabal and Daloz (1999). Politicians must engage in redistribution within their communities to sustain their legitimacy as leaders, thus signaling how they intend to govern once in office. As Nugent explains, "the distribution of banknotes or bags of rice goes far beyond being a purely material exchange. It demonstrates that the politician does recognize his/her local responsibilities" (Nugent 2007). Because a viable candidacy entails redistributive campaigning, politicians must acquire the means not only to pay for mundane expenses associated with advertising, equipment, and staff, but also to offer goods or money to constituents in exchange for their votes. And, if they are to remain in office, these politicians are expected to continue delivering favors and providing resources well after the election (Basedau et al. 2007; Villalón and VonDoepp 2005; Nugent 2001).

Survey data confirm the ethnographic insight that African voters expect politicians to engage in resource distribution. The Afrobarometer survey conducted in 2005-2006 across 18 countries reveals that, on average, nearly three-quarters of voters "often" or "always" expect politicians to give gifts during election campaigns.[1] The Afrobarometer data are noteworthy in that the distribution of countries in the sample has no straightforward relationship with the quality of their democracy. Voters in countries like Ghana and Senegal — which have experienced democratic alternations — continue to expect their politicians to offer clientelistic favors. Even in Botswana and South Africa, the only countries in the Afrobarometer sample to be conventionally considered consolidated democracies, more than half of respondents anticipated being offered gifts from politicians seeking office.

The widely-held expectation among voters that politicians will engage in redistribution magnifies the significance of campaign resources. In their search for such resources, however, these politicians find that they must fend for themselves because the fundraising channels typically employed in established democracies — parties, businesses, and citizens — are often unavailable to them. The party itself is not a true electoral machine in this respect. While ruling parties tap state coffers to subsidize their candidates, few opposition parties have the campaign

[1] The Afrobarometer survey asked how often politicians "offer gifts to voters during election campaigns." Respondents answered "often" or "always" in the following percentages: Kenya 95%; Zambia 94%; Benin 85%; Mali 85%; Nigeria 85%; Senegal 85%; Uganda 85%; Zimbabwe 83%; Cape Verde 82%; Ghana 72%; Malawi 70%; Madagascar 65%; Mozambique 65%; Botswana 55%; South Africa 54%; Tanzania 53%; Lesotho 46%; Namibia 45%. The survey data are available at http://www.afrobarometer.org/.

war chest necessary to provide any substantive funding to their own candidates. Nor can businesses afford to serve as party donors in many cases, since the persistence of *dirigiste* policies means the government can manipulate the state's ownership in large parts of the economy, along with other regulatory mechanisms, to punish any diversification of donations (van de Walle 2001; Quinn 1999). The lack of development in most African countries also means that politicians cannot reasonably expect to rely on individual donations from their constituents.

Consider, for instance, that providing voters with handouts of cash and goods represents the single largest expense for parliamentary candidates in Kenya, where the average annual per capita income is about $750. According to the Coalition for Accountable Political Financing (CAPF), an alliance of Kenyan civil society organizations, the typical candidate spent approximately $45,000, or 44% of a campaign budget, on cash and goods given directly to voters during the 2007 national elections.[2] CAPF further finds that candidates largely self-financed these expenses: 45% were covered by personal funds, 40% by loans, 10% by individual contributions, and 5% by party funds.

The Kenyan example underscores the resource demands faced by African politicians seeking to win, and hold onto, elected office. They must independently secure the large sums needed to engage in redistributive campaigning despite having limited channels for acquiring those funds. Such resource constraints leave many African politicians vulnerable to cooptation by the incumbent. Lacking other financing options, politicians willingly trade whatever electoral support they command for a government appointment — to the cabinet, a parastatal, or any other official position — that will enable them to transform public resources into club goods or private

[2] Coalition for Accountable Political Financing, "Campaign Finance and Corruption: A Monitoring Report on Campaign Finance in the 2007 General Election," Nairobi, Kenya. We converted Kenyan shillings cited in the report to US dollars using the December 2007 average of Ksh63.9.

services for their supporters. By accessing and diverting such resources, these politicians can retain their status as the putative leaders of their constituencies.

Given the resource demands and constraints faced in maintaining their electoral viability, opposition party leaders have an incentive to seek out and accept patronage appointments from those in power. Kenya again provides an apposite example. Although President Daniel arap Moi was re-elected in 1997 against a field of rival candidates who divided the opposition vote along ethnic lines, he still feared that opposition party leaders might coordinate in the National Assembly, where his long ruling Kenya African National Union (KANU) held only a slight majority. Moi therefore sought to coopt Raila Odinga, one of his challengers in the presidential race and leader of 21 parliamentarians elected on the ticket of the opposition National Development Party (NDP). Their cooperation was formalized when Moi appointed Raila Odinga to his cabinet in 2001.

Raila Odinga's appointment as a cabinet minister had an observable impact on his subsequent campaign spending. One way to estimate his access to resources is through donations his party made to *Harambees*, the mass rallies organized by Kenyan communities to raise funds for development projects. Politicians have also used Harambees as occasions to cultivate electoral support by publicly demonstrating their ability to deliver resources.[3] In this case, data on Harambee donations made in 2000-2002 can be disaggregated to estimate how the entry of a former opposition party leader into government could subsequently affect his capacity to distribute such resources.[4] In the sixteen months prior to joining Moi's cabinet, Raila's NDP donated a little over $3,000 per month to Harambee community development projects across the

[3] Harambee, meaning "let's pull together" in Swahili, was established as a self-help scheme in the 1960s to provide funds for community development projects and acquired a political significance over time. See (Widner 1992; Throup 1993)
[4] The Harambee data are from the Kenya chapter of Transparency International.

country. That monthly figure jumped by 80%, to over $5,500 per month, in the fifteen months after he became a cabinet minister. Joining the government enabled Raila Odinga to become the country's second-largest Harambee donor after Moi's own ruling party.

Opposition Fragmentation through Cooptation

Although the existing literature has usefully shown how institutions and cleavages can influence the strategic behavior of politicians seeking to win office, it remains unclear how the resource constraints outlined in the previous section might impinge on decisions to enter races, form new parties, or coordinate nominations across constituencies. We argue that such resource constraints play a critical role in shaping the development of party systems in African countries where patronage remains an instrument of regime maintenance and democracy has yet to be consolidated.

There is, of course, nothing particular to African countries in the logic of patronage. Incumbents, over time and across regions, have distributed state resources to stave off threats to their power (Huntington 1968; Scott 1969). They attempt to induce support for the political status quo through the selective allocation of offices and monies. By exploiting the resource constraints of politicians who seek to sustain their own followings, incumbents are not only able to neutralize potential opponents; they are able to dissuade them from acting in concert with others. Politicians who accept patronage appointments then have more to lose. Cooptation, in this respect, permits incumbents to stabilize their regimes by impeding the coordination of broader opposition, electoral or otherwise. In Great Britain, for example, the cooptation of opposition through patronage provided the means for taming a fractious parliament. Robert Walpole engineered the extended period of Whig dominance in the eighteenth century, overcoming the political instability that followed the Glorious Revolution, by manipulating the growth of executive offices (Plumb 1961). Facing mounting campaign costs along with growing intra-elite competition, once-ardent Tories found it difficult to resist patronage appointments. Under Walpole, according to Plumb (1967, 189), "It was patronage that cemented the political system, held it together, and made it an almost impregnable citadel, impervious to defeat, indifferent to social change."

Patronage-based cooptation, beyond permitting leaders to stabilize their regimes, encourages the fragmentation of party systems. This association between cooptation and fragmentation is especially likely to arise in countries where politicians can gain access to state resources without being in the winning coalition. The paradigmatic cases of party fragmentation would, to be sure, be incompletely understood without accounting for the impact of patronage. In Italy, where party system fragmentation has been conventionally attributed to the interaction between electoral rules and ideological polarization (Sartori 1976), the electoral calculus of politicians was inevitably driven by the established practice of *trasformismo*, the cooptation of opposition for the formation of ad hoc parliamentary majorities. Recognizing that ideological distance did not necessarily impede political accommodation, since spoils were regularly distributed across the ideological spectrum, Italian politicians have had little incentive to coalesce into larger parties. The Christian Democrats were thus able lock in their hold on power and gradually splinter their opposition on both Left and Right during the five decades following the Second World War (Di Palma 1977; Spotts and Wieser 1986; Hine 1993). A comparable pattern can be seen in Brazil, where a permissive electoral system has interacted with the federal system to produce a fragmented party system. But here, too, politicians have adapted to account for the fact that their electoral payoffs are unconstrained by their partisan affiliations. The executive's control over patronage has allowed presidents to buy votes and defections through promises of offices, jobs, and favors (Mainwaring 1999; Amorim Neto and Santos 2001; Desposato 2006). Politicians have had little incentive to coalesce into larger parties as a result.

Patronage-based cooptation in African countries has similarly influenced the development of contemporary party systems. This institution, established during the era of one-party states, survived the transition to multiparty politics (Lemarchand 1972; Rothchild and Olorunsola 1983; Bayart 1989; van de Walle 2007). Today, the discretionary allocation of offices permits African incumbents to exploit the financial vulnerability of rivals who must satisfy growing resource demands to retain the support of constituents under constrained fundraising opportunities. The advantage that these leaders can derive from coopting cash-strapped opposition politicians is not in amalgamating their voting blocs with their own; it is in the partisan fragmentation that subsequently arises among the opposition. Leaders can deploy their patronage to divide the opposition, using selective incentives to encourage politicians to maintain their independent party labels rather than coalescing with their counterparts under a single banner across cleavages. When leaders prove willing to allocate offices across partisan lines, their rivals find it difficult to lure away sufficient numbers to form an alternative coalition to the one in power.

A growing body of case studies of African party systems suggests that patronage-based cooptation enables incumbent leaders to aggravate the prisoner's dilemma among opposition politicians (Crook 1997; Joireman 1997; Osaghae 1999; Ndegwa 2001; van de Walle 2003; Konings 2004; Scarritt 2006; van de Walle 2006). The opposition as a whole finds itself in a non-cooperative equilibrium because individual party leaders — motivated by the search for resources needed to retain their leadership positions — have a dominant strategy for securing electoral payoffs: they can attempt to negotiate themselves into the incumbent's government. These party leaders could alternatively seek to maximize their electoral payoffs by coalescing under a broad-based party or a multiparty coalition that brings about an alternation in power. The problem, however, is that these party leaders have no way of enforcing their cooperation, since individual members might defect before the election, thereby making alternation less likely. Or, whoever among the opposition wins office might renege on power-sharing promises after the election. In either case, a party leader would face the non-negligible possibility of losing out on state office even after having invested campaign resources on behalf of a party or coalition.

This logic implies that incumbents, if they seek to encourage the fragmentation of the opposition, would need to signal their capacity to extend patronage across the political spectrum without regard to partisan affiliation. A president or prime minister can send such a cooptation signal through the rotation of ministerial portfolios in the cabinet. In most countries, and certainly in Africa, the cabinet is a focal arena, actively monitored by politicians (and their constituents) for indications of impending political changes. The size of the cabinet, for example, has been used by van de Walle (2001) to demonstrate how governments protected political elites from austerity measures through economic crises. Cabinet size has also been used to show that African leaders could lower the likelihood of being toppled by expanding their patronage coalitions through the addition of extra cabinet ministers (Arriola 2009).

We suggest that African incumbents signal their willingness to coopt members of the opposition through the circulation of patronage appointments, namely, the frequency with which individuals are added, removed, or reshuffled in cabinet positions. Opposition party leaders might not expect to negotiate a credible patronage bargain with an incumbent who has only appointed members of the ruling party to the cabinet or has rarely changed the composition of the cabinet. But these party leaders could anticipate negotiating such a bargain with an incumbent who had previously included other opposition politicians in the cabinet. Because electoral competition creates a structure for repeated play, party leaders could further anticipate that this incumbent would not renege on patronage promises (Myerson 2008). The ability of aggrieved opposition party leaders 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, would be a sufficient deterrent.

This logic may explain why an entrenched incumbent like Cameroon's long-serving president, Paul Biya, would routinely appoint opposition members to his cabinet despite being able to outspend his rivals with state funds, manipulate electoral rules, or use coercion whenever necessary. The fragmentation of his opposition has been most effectively secured through regular cooptation. Recognizing that Biya appoints members of the opposition to his government after every election, opposition party leaders have had little incentive to coordinate among themselves. After the 1992 presidential election, Biya appointed eight members of the opposition to his cabinet, including two deputies from the National Union for Democracy and Progress (UNDP), one of the few opposition parties that could challenge the incumbent nationwide at the time. Although the following 1997 presidential election was boycotted by much of the opposition, 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 continued his practice of opposition cooptation by appointing five members of other parties to his cabinet. In fact, perhaps because he was left out of the previous round of cooptation, the erstwhile opposition politician Issa Tchiroma split off from the UNDP in 2007 to create a new party, the Front for the National Salvation of Cameroon (FSNC). Biya then appointed Tchiroma as minister of communication in 2009.

For their part, opposition party leaders should be expected to adjust their electoral strategies according to the odds of being offered a patronage appointment to the cabinet. As the likelihood of being invited to join government increases, politicians would opt to maintain their independent parties or campaign individually rather than coordinate with other politicians under a single party. They enter presidential races to visibly demonstrate their ability to mobilize the support of their co-ethnics and not because they expect to win outright. Opposition party leaders can then leverage their respective voting blocs to negotiate with the incumbent over their entry into government. For example, in Kenya, a politician like Kalonzo Musyoka insisted on contesting the 2007 presidential election rather than joining an opposition coalition. Not only did he lack the resources of the incumbent, Mwai Kibaki, or the major opposition candidate, Raila Odinga, but public polls had revealed well in advance that his candidacy was hopeless. Perhaps Musyoka understood that he might well improve his electoral payoff, regardless of who else won, by demonstrating his capacity to mobilize his co-ethnics. Indeed, Kibaki had appointed six members of the opposition to his outgoing government, prompting one of his longtime allies to observe that the Kenyan presidency had become a "piece of sweet potato" that could be given to every "salivating mouth."[5] Musyoka's gambit paid off: he was appointed as Kibaki's vice president after winning about 9% of the vote.

A Theoretical Model of Opposition Fragmentation

We model the relationship between patronage and opposition fragmentation as an infinitely repeating sequence of elections involving an *incumbent*, who remains in office until

[5] Quoted in John Kamau, "Karume Returns to the Fold," *Sunday Standard* (Nairobi), 4 July 2004.

losing an election, and two *opposition candidates*. At the beginning of each election cycle, the opposition candidates each make a decision to fragment or unify based on their common beliefs about how the incumbent will fill an administrative job vacancy 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. 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 winner of the election decides whether to give a cabinet position to someone outside of the party, as a form of opposition patronage, or to give the position to someone from his own party. The advantage to the winner of appointing someone outside the party is that the decision signals to opposition candidates in the next election cycle that the incumbent is someone who, should he win again, is likely to appoint someone outside the party to the administrative post. This makes the 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

Formally, consider election cycle t, where each election is a three-period stage game of the infinitely repeating game. At the start of period 1, two *opposition candidates* appear. Both opposition candidates simultaneously choose either "fragment" (i.e., run separately against the incumbent in 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 an administrative vacancy, as explained shortly. If both choose "unify", then unification occurs in election t, and otherwise fragmentation occurs. To simplify the analysis, we assume that in the event of unification, one candidate will become the leader of the opposition coalition and run as the sole candidate for the opposition. A second opposition candidate will forgo his opportunity to run as a candidate for the election in exchange for a guaranteed cabinet appointment in the new administration in the event that the opposition leader wins the election. To distinguish between these two opposition candidates, we will hereafter refer to the first opposition candidate as the opposition *leader* and the second opposition candidate as the opposition *member.* It is important to note that in the case of fragmentation, the *leader* enjoys no electoral advantage over the *member* and they run as separate equals against the *incumbent.*

Let $q_{t\text{-}1}$ denote a binary variable equaling 1 if the administrative appointment in the previous election t-1 was from outside the party and 0 if it was from inside the party. Let $N_{t\text{-}1}$ 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 $q_{t\text{-}1}$ and $N_{t\text{-}1}$ at the start of stage 1 and consider this information when deciding whether to fragment or unify. Let $f_t^L(q_{t\text{-}1},N_{t\text{-}1})$ and $f_t^M(q_{t\text{-}1},N_{t\text{-}1})$ denote the stage-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 $F_t(q_{t\text{-}1},N_{t\text{-}1})$ be a binary indicator equaling 1 if the opposition fragments and 0 if it unifies in election t, so that $F_t(q_{t\text{-}1},N_{t\text{-}1}) \equiv 1 - (1 - f_t^L(q_{t\text{-}1},N_{t\text{-}1}))(1 - f_t^M(q_{t\text{-}1},N_{t\text{-}1}))$.

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 $p_t(F_t(q_{t\text{-}1},N_{t\text{-}1}))$ denote the incumbent's probability of victory in election t. We assume $½ \leq p_t(0) < p_t(1) < 1$, i.e., there is an incumbency advantage and the incumbent is more likely to win against a fragmented opposition than against a unified one. The current holder of the administrative job retires at the end of stage 2, creating a vacancy.

In period 3, the winner fills the administrative job with either someone inside the party or with someone outside the party. Let $D_t(q_t)$ be the winner's cost of filling the administrative vacancy in election cycle t, where $D_t(0) = 0$ and $D_t(1) = d > 0$, so the cost of filling the vacancy with someone inside the party is normalized to zero. Incumbents who have already made extensive prior commitments to an existing elite as part of a highly institutionalized party-based regime will face higher costs, d, of cooptation. In such cases, trying to coopt additional opposition leaders may involve forgoing buying off an elite from the incumbent's own coalition, risking the loss of support from his own elites.

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

On the other hand, in the case of a unified opposition, we assume that the election winner *must* choose $q_t = 0$ and uphold his commitment to appointing the opposition member to the administrative 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 he keeps winning. We denote winners who must choose $q_t = 0$ as "constrained winners".

Following the choice of q_t, payoffs are received, and at the end of stage 3 the opposition candidates who lost the election and received no administrative appointment retire. Post-election payoffs vary across three possible outcomes: winning the election, losing the election but getting an administrative appointment, and losing the election and getting no administrative appointment. The winner of the election receives a payoff of *R,* representing the rents and returns of holding office. The candidate who loses the election but gets an administration appointment receives a payoff of *u*, where $0 < u$, representing utility gained from having a cabinet position. The payoff of losing the election and getting no administrative 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 administrative position with its payoff of *u*, and the opposition member receives zero payoff. If the incumbent wins and chooses $q_t = 1$, and if the opposition is fragmented, then each opposition candidate is granted the administrative job with equal probability, and the candidate that does not get the job gets zero payoff. If the opposition is unified and the incumbent loses, then the opposition leader wins and honors an enforceable contract by appointing the opposition member to the administrative 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 administrative job if $q_t = 1$ and zero payoff if $q_t = 0$.

Patronage and Opposition Fragmentation

The problem is stationary so that all choice problems look the same at each election cycle, and for simplicity we assume no discounting of the future. Given stationarity, 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 $\mathrm{V}_\mathrm{t} = R - D_t(q_t) + p_{t+1}(F_{t+1}(q_t,N_t))\mathrm{V}_{\mathrm{t+1}}$.

We now turn to the opposition candidates' beliefs concerning how the administrative vacancy will be filled at the end of an election cycle. Let $\pi_t(q_{t\text{-}1},N_{t\text{-}1},N_t,F_t)$ 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 $\pi_t = \mathrm{Prob}(q_t = 1|q_{t\text{-}1},N_{t\text{-}1},F_{t\text{-}1},N_t,F_t)$. Opposition candidates can influence π_t via F_t, which is the product of their joint decisions.

If a newcomer won the preceding election and filled the administrative appointment from inside the party (i.e., $N_{t\text{-}1} = 1$ and $q_{t\text{-}1} = 0$), then what can be inferred by the opposition candidates regarding how the election-t administrative 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 $F_{t\text{-}1}$). In particular, if the winner of the t-1 election was the leader of a unified opposition party (i.e., $F_{t\text{-}1} = 0$), then that winner was contractually obligated to appoint the opposition member (someone from his own party) to the administrative office in election cycle t-1. So if $q_{t\text{-}1} = 0$, $N_{t\text{-}1} = 1$, and $F_{t\text{-}1} = 0$, the opposition candidates recognize that $q_{t\text{-}1} = 0$ 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 from stationarity that $q_{t-1} = q_t$, because the winner was unconstrained in election t-1 as well as in election t.

Opposition fragmentation in election t is more likely to occur when $q_{t-1} = 1$ than when $q_{t-1} = 0$. First, "fragment" is a weakly dominated strategy for the leader.[6] Second, if the member observes $q_{t-1} = 1$ he infers that the incumbent (having appointed an outside-party candidate in the past) would appoint an outside-party candidate again in the event of an incumbent victory. This means that under fragmentation, if the member loses, he would have a higher probability of being appointed to the administrative 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 an administrative post in the event of a loss. But this cost is smaller in the event of $q_{t-1} = 1$ than in the event if $q_{t-1} = 0$, making the member more inclined to choose "fragment".

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

Equilibrium Analysis

We restrict our attention to subgame perfect Nash equilibria (SPNE) in pure strategies. Notice that 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

[6] See the appendix for a proof of this claim.

administrative job, i.e., π_t is always either zero or one.[7] The following proposition states the main result (see the appendix for the proof).

<u>Proposition 2</u>:

(i) [Fragmentation Equilibrium] As long as the costs of cooptation for the incumbent are sufficiently low, then an equilibrium exists in which the incumbent always pursues a strategy of opposition cooptation and the opposition always fragments. Formally, if $d \leq R(p(1)-p(0))/(1-p(0))$ *there exists a unique 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* $q_t = 1$*"; the member plays "*$f_t^M = 1$*;* $q_t = 1$*", and the incumbent plays "*$q_t = 1$*".*

(ii) [Unification Equilibrium] If the incumbent faces much higher costs to coopt the opposition, then an equilibrium exists in which the incumbent never chooses to coopt the opposition and the opposition always unifies. Formally, if $d > R(p(1)-p(0))/(1-p(0))$*, there exists a unique SPNE in pure strategies in which in every election t the leader plays the strategy "*$f_t^L = 0$*;* $q_t = 0$*"; the member plays "*$f_t^M = 0$*"; and the incumbent plays "*$q_t = 0$*".*

Proposition 2 states that there are two potential SPNE that could arise. 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 inside the party.[8]

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[7] We assume that d/u is sufficiently small to ensure that a unique SPNE exists for all possible values of R.

[8] The condition involving d/u is made more precise in the appendix proof. If the condition is not met, then a result similar to that in the proposition holds, though for some (intermediate) values of R no SPNE in pure strategies exists. More precisely, if the condition involving d/u fails to hold, then part (i) of the proposition continues to hold; part (ii) continues to hold but with a lower threshold for R, namely $R < 2(1 - p(0))^2u/\{[1 - p(1)][p(1) - p(0)]\}$; and no SPNE in pure strategies exist when R falls in the intermediate interval $2(1 - p(0))^2u/\{[1 - p(1)][p(1) - p(0)]\} < R < d(1 - p(0))/(p(1) - p(0))$. Note that for a given value of d/u, the condition for d/u fails if $p(1) - p(0)$ is sufficiently small, so

Increases in the cost of cooptation for the incumbent (d) make the fragmentation equilibrium relatively less likely to occur, since a higher cost to the winner of appointing someone outside the party makes such appointments less attractive from the winner's perspective, thereby reducing the likelihood of the fragmentation equilibrium.[9]

Cabinet Volatility as a Cooptation Signal: Data and Summary Statistics

To ascertain whether the patronage-based explanation for opposition fragmentation in countries like Cameroon and Kenya can be generalized to the rest of Africa, we employ cabinet volatility as a measure of the incumbent's willingness to appoint opposition members to government. The frequency with which leaders rotate members of their cabinet, we maintain, serves as a cooptation signal to the opposition. Politicians are able to use an incumbent leader's history of cabinet appointments to infer the likelihood that members of the opposition may be coopted into government. As the turnover rate in cabinet appointments increases, politicians are expected to be more likely to compete for office independently, splintering off from established parties or running on minor party tickets, rather than coordinating nominations or coalescing into larger parties. This line of reasoning leads to a straightforward and testable hypothesis: a higher rate of pre-electoral cabinet volatility should lead to a larger number of candidates and parties vying for office in subsequent elections.

We follow the standard practice of defining cabinet volatility as the sum of portfolios added to the cabinet, eliminated from the cabinet, or reshuffled among sitting ministers in a given year (Lijphart 1984; Huber 1998). This sum is weighted by the size of the cabinet to

existence of a unique 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.

[9] If d/u becomes sufficiently large, the condition for the proposition 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.

produce a single index score for each country-year. A cabinet with no changes, whether in portfolios or personnel, would produce an index score of 0. A single change in a cabinet with 22 ministers, the regional average in Africa, would produce an index score of 0.05. For the present analysis, we employ a three-year moving average to smooth out the number of changes that vary widely from year to year. Higher average index scores indicate greater cabinet volatility, which we interpret to suggest that an incumbent increased the circulation of patronage in the previous three years.

Figure 1 shows the three-year moving average for cabinet volatility alongside the average number of cabinet ministers from 1980 through 2005. The average volatility score is relatively stable over time: it was 0.39 in the 1980s, rose to 0.47 in the 1990s, and then returned to 0.41 after 2000.[10] However, the average volatility index score could only appear relatively stable if incumbents made annual changes in ministerial appointments at a faster rate than they expanded the number of cabinet ministers. And, in fact, incumbents have accelerated the circulation of patronage appointments since the onset of political liberalization in the 1990s. The average number of year-to-year changes to the cabinet — the numerator of the volatility index — nearly doubled from 7.2 in 1985 to 13.8 in 2005. The average number of cabinet ministers — the denominator of the volatility index — increased in the same time period from 20.5 to 27.8.

—FIGURE 1—

For a concrete sense of what this measure entails, consider another illustration from Kenya, where the number of cabinet ministers approximated the regional mean in the 1990s. Moi

[10] There are relatively few years in which leaders made no changes to their cabinets: only 15% of over one thousand country-years between 1970 and 2005 have volatility scores of zero.

apparently made little effort to bring the opposition into his government during his first multiparty term. He neither removed ministers associated with his ruling party nor added any ministers from the opposition. After the 1997 election, Moi undertook the routine cabinet changes that occur after any election: he added five new ministers, removed three ministers, and shuffled portfolios among eighteen ministers. As Moi sought to make patronage offers to the opposition, he made additional changes every year leading up to the next presidential election, when he would have to ensure the election of his designated successor. Therefore, in 1999, he added four ministers, removed seven, and shuffled portfolios among another twelve ministers. Over the next two years, he added at least one additional minister and reassigned an average of seven ministers each year. Our measure for cabinet volatility reflects the increased rate at which Moi sought to circulate patronage in his second term over his first term. On the eve of the 1997 presidential election, average cabinet volatility for the previous three years stood at 0.07. That figure jumped to 0.52 for 2002.

The question remains whether increased cabinet volatility is actually associated with a greater likelihood of opposition cooptation. To be sure, patronage-based bargains occur regularly across African countries: we find that at least one in three executives appoints a member of the opposition to the cabinet within the six months following an election.[11] But since most African polities are presidential systems in which the executive typically enjoys a legislative majority, the need to extend such bargains is not immediately apparent. The data on winning presidential candidates' vote shares confirms that there is no statistically significant difference in the electoral majorities won by incumbents who subsequently coopt opposition members (61% vote

[11] Of the 99 executive elections in Africa for which we have data on post-election government formation, we find that executives appointed an opposition party leader or member to their cabinets after 38 of those elections. On average, executives appoint nearly four opposition members to these cabinets.

share) and those who do not (64% vote share).[12] The lack of such a pattern contradicts the behavior expected of presidents who fear being hamstrung by multipartism (Linz 1990; Shugart and Carey 1992). Because they do not operate under Westminster parliamentary systems, these presidents have mandates that 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. The legislature, moreover, typically has no influence or confirmation power over the president's appointments to, or dismissals from, the government.[13] Patronage-based cooptation of opposition party leaders, nevertheless, occurs routinely across a range of regimes, including Gabon, Senegal, and even South Africa (Beck 1999; Atenga 2003; Booysen 2006).

A close examination of pre-electoral cabinet volatility suggests that ambitious opposition party leaders might do well to read into the relative frequency of cabinet changes. Figure 2 confirms that higher rates of cabinet volatility are associated with patterns of post-electoral opposition cooptation.[14] Cabinet volatility is, on average, higher in the years leading up to elections in countries where executives tend to appoint opposition politicians to their cabinets after those same contests. And this difference between incumbents who poach opposition members and those who refrain from doing so appears to widen as the election approaches.[15] A difference-of-means test reveals that incumbents who engage in post-electoral cooptation have

[12] A difference-of-means test indicates that there is no statistically significant difference across the samples. The vote shares are from sixty-one elections won by incumbents; they include first-round vote shares from elections held under runoff systems.

[13] Botswana, for example, has been among the rare African country to impose a limit on the number of cabinet appointments made by the president, though the number has been gradually expanded over time. The legislature still plays no role in confirmation.

[14] Instances of opposition cooptation were identified through ministerial appointments in the six-month period following an election. Politicians were identified as being in opposition if they are members of a party that competed in the election, and they are not members of the president's ruling party. Secondary materials such as case studies and media reports were used to corroborate opposition coding

[15] In Figure 2, the average index scores in Year 0 are calculated using cabinet data that precede the actual election date.

higher average levels of cabinet volatility in the three years preceding an election (0.49) than those who do not (0.37). This difference is statistically significant (p=0.002).

—FIGURE 2—

Data and Methods

The argument developed thus far suggests that higher pre-electoral cabinet volatility may induce greater party fragmentation in African countries by encouraging politicians to campaign independently with the expectation of being coopted into government. We test this proposition with a sample of elections held in 36 African countries between 1990 and 2005.[16] Since our claim is that patronage, as an executive institution, drives much of the electoral behavior in Africa's hybrid regimes, we include all elections in this time period, regardless of level of democracy, as long as multiple candidates were permitted to contest them. The data are analyzed using OLS regression.

Dependent Variables

The dependent variable for electoral fragmentation is measured through the effective number of presidential candidates. This measure is calculated as the inverse of the sum of vote shares received by each candidate (Laakso and Taagepera 1979; Cox 1997). Electoral data were compiled from print sources like Nohlen et al. (1999), secondary sources like the African Elections Database, and media sources such as the BBC and *Agence France Presse*.[17] The

[16] The sample excludes Democratic Republic of Congo, Equatorial Guinea, Somalia, Sudan, and most island nations.
[17] The African Elections Database can be accessed at http://africanelections.tripod.com/.

average effective number of presidential candidates is 2.6 and ranges from a minimum of 1 to a maximum of 6.6.

An alternate dependent variable is the effective number of opposition presidential candidates. The patronage-based argument implies that votes are being divided among a larger number of opposition candidates who are induced to contest elections with the promise of being coopted. The opposition-specific operationalization allows this dynamic to be more readily seen. The average effective number of opposition presidential candidates is 2.4 and ranges from a minimum of 1 to a maximum of 8.3.

The dependent variable is separately examined as the effective number of legislative parties. The patronage logic should hold not just for presidential elections, but also for legislative elections. For this analysis, we use the data set from Brambor et al. (2006), which is a corrected version of the data set originally constructed by Mozaffar et al. (2003). The average effective number of legislative parties is 2.6 and ranges from a minimum of 1 to a maximum of 8.8.

Independent Variables

We assess the theoretical claim of this paper by employing pre-electoral cabinet volatility as the principal explanatory variable. According to the logic outlined in this paper, cabinet volatility serves as a cooptation signal: higher levels of pre-electoral cabinet volatility are expected to be associated with a larger number of presidential candidates and legislative parties. The information for calculating this measure is taken from annual volumes of *Africa South of the Sahara* (Europa Publications Limited 1971-2006). As described above, this measure is the sum of portfolios added, eliminated, or reshuffled in a country year, weighted by the size of the cabinet. Throughout the analysis, we use the mean of cabinet volatility for the three years prior to an election. Taking this pre-electoral three-year average ensures that the measure is not driven by the post-election cabinet changes that would have occurred after the previous election, while still capturing the year-to-year changes that African incumbents often make to their governments. The sample mean for cabinet volatility is 0.41, ranging from 0 to 1.

We also control for whether the opposition participated in government prior to the election. Past opposition participation in government is expected to induce a larger number of candidates to vie for office. This variable is coded dichotomously to equal to 1 if at least one identifiable opposition member was appointed to a ministerial position; it is 0 otherwise. Thirty-eight percent of observations in the sample had opposition participation in the outgoing government.

We also control for the standard explanatory variables highlighted in the party system literature. To estimate the effective number of presidential candidates, the models include a dichotomous variable for countries that employ a runoff system, standard measures of ethnic fractionalization, and the interaction between the runoff system and ethnic fractionalization. Runoff systems are thought to weaken the incentives for politicians to coalesce, so they are expected to be associated with a larger number of presidential candidates. Information on runoff systems is from Nohlen et al. (1999). Seventy-one percent of observations in the sample use runoff systems.

Greater ethnic heterogeneity is expected to be associated with a larger number of presidential candidates, as suggested by the literature. We use Posner's (2004) measure for politically relevant ethnic groups (PREG). The average fractionalization score according to Posner's index is 0.41, ranging from 0 to 0.71.

Because political liberalization has yet to be consolidated in most African countries, the models for the effective number of presidential candidates also control for democratic experience and authoritarian legacies. The Polity score is added as a measure of the level of democracy (Marshall and Jaggers 2009), and the number of previous multiparty elections is a control for democratic experience. The number of years the current regime has been in power is included as an indicator of possible authoritarian durability.

To estimate the effective number of legislative parties, we employ the same model specification as used in Brambor et al.'s (2006) study.[18] This model includes institutional and sociological variables and their interactions. The institutional variables are average district magnitude, which is the number of politicians elected per electoral district, the proximity of presidential and legislative elections, and the effective number of presidential candidates. The party system literature suggests that higher average district magnitude and a larger number of presidential candidates will result in a larger number of parties, though proximity is expected to have a reductive effect (Duverger 1954; Cox 1997). The sociological variables are the effective number of ethnic groups, labeled fragmentation, and the geographic concentration of ethnic groups. Mozaffar et al. (2003) have argued that higher ethnic fragmentation leads to a lower number of parties, while greater ethnic geographic concentration increases the number of parties. Brambor et al. (2006) found no such effects in their follow-up study.

Empirical Analysis

Table 1 reports the estimated effects of pre-electoral cabinet volatility on the effective number of presidential candidates. Model 1 adds cabinet volatility alone, while Model 2 shows the standard specification based on the runoff system, ethnic fractionalization, and their

[18] The authors made their replication data available at http://hdl.handle.net/1902.1/10559.

interaction. In Model 3, cabinet volatility is added to this standard specification. Model 4 substitutes cabinet volatility with the dummy variable for past opposition participation in the cabinet. Model 5 shows the estimated effects of cabinet volatility once the regime controls are included.

The results shown in Table 1 support the argument developed throughout this paper: higher levels of pre-electoral cabinet volatility are associated with a larger effective number of presidential candidates. The coefficient on this variable attains its expected positive sign and is statistically significant in all model specification at the 0.01 level. Its substantive impact is likewise significant. The estimated coefficient for this variable in Model 3 indicates that each 0.1 increase in mean cabinet volatility is associated with a 0.18 increase in the effective number of presidential candidates, holding all else constant. If the mean level of cabinet volatility of 0.41 were raised by one standard deviation to 0.62, the effective number of presidential candidates would be expected to grow from 2.53 to 2.91, holding all else constant and the runoff dummy equal to 1.

—TABLE 1—

The impact of pre-electoral volatility is not undercut by the inclusion of additional variables meant to capture the conventional measures used to estimate the effective number of presidential candidates. In Table 1, the statistical effects of the runoff system, ethnic fractionalization, and their interaction are indistinguishable from zero. Moreover, as the differences in R^2 across models indicate, cabinet volatility alone explains more of the variation in the effective number of presidential candidates than electoral rules and ethnic fractionalization combined.

The variables used as regime controls in Table 1 largely fail to attain statistical significance. Neither the level of democracy nor longer-lived regimes systematically influence the effective number of presidential candidates, according to the estimated coefficients in Models 4 and 5. Longer lived regimes, as shown in Model 5 appear to be associated with a small reduction in the number of candidates.

Table 2 reports the results for the effective number of opposition presidential candidates. The same set of independent variables are used as in Table 1. Again, pre-electoral cabinet volatility attains statistical significance at conventional levels. The results show that pre-electoral cabinet volatility is not merely inducing the redistribution of votes — between the incumbent and opposition candidates — but attracting more candidates into the presidential race. According to the estimated coefficient from Model 8 in Table 2, a 0.1 increase in the three-year mean of cabinet volatility is associated with a 0.19 increase in the effective number of opposition presidential candidates, all else equal.

—TABLE 2—

Table 3 extends the analysis to the effective number of legislative parties. Using the data from Brambor et al. (2006), we add pre-electoral cabinet volatility as an explanatory variable to their model. The model includes the standard institutional and sociological variables as well as a measure for the geographic concentration of ethnic groups and their interactions. One important difference here is that nearly twenty observations are lost due to missing data on cabinet volatility; their sample includes many of the island nations for which we lack information. Nevertheless, the estimated coefficients reported in Table 3 are comparable to their findings. As theory would predict, the interaction between district magnitude, ethnic fragmentation, and the concentration of ethnic groups increases the effective number of legislative parties.

Models 13 and 14 indicate, moreover, that pre-electoral cabinet volatility has its hypothesized effect on the effective number of legislative parties. Even when controlling for the interaction between institutional and sociological variables, the estimated coefficient on cabinet volatility moves in the expected direction and attains statistically significance at conventional levels. Greater cabinet volatility is associated with a larger effective number of legislative parties. A one-standard deviation increase in cabinet volatility would produce nearly a 0.2 increase in the effective number of legislative parties, all else equal.

—TABLE 3—

Conclusion

This paper has examined the extent to which patronage, as an enduring executive institution, can influence the development of electoral regimes. We have delineated and assessed a patronage-based explanation that has attained the status of conventional wisdom in the literature on African regimes. To test this patronage-based logic, we have employed pre-electoral cabinet volatility as a proxy for the incumbent's cooptation signal. The empirical analysis shows that greater pre-electoral cabinet volatility is associated with a larger number of candidates entering presidential races and a larger number of parties competing for legislative seats.

These findings on patronage-based cooptation complement previous research on electoral authoritarian regimes. They indicate that an executive institution honed for the purposes of regime maintenance under authoritarian conditions continues to regulate politics despite the transition to multipartism in many countries. Patronage will likely continue overshadowing the influence of other institutional or structural variables in shaping electoral coordination as long as politicians rely on public rather than private resources to conduct their electoral campaigns. In this respect, the analysis of patronage in African party systems may help to shed light on the development of party systems in in other parts of the world.

This study's findings point to questions that require further investigation as part of the broader research program on the development of party systems in hybrid regimes. The first set of questions concerns the allocation of patronage appointments under conditions of social heterogeneity. This study does not examine how the distribution of patronage across ethnic groups affects an incumbent's ability to hold onto power. Yet, if ministerial appointments serve as a mechanism by which incumbents make credible their promises to channel resources to specific groups, how does the number of ministers or the reshuffling of ministers affect an incumbent's support among the groups they are intended to represent? Does incumbent support, or government stability, necessarily depend on ethnic balancing within the cabinet, regardless of demonstrated electoral support? Or can leaders hold onto power by simply concentrating appointments among the groups in their electoral base?

A second set of questions concerns the costs 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 very well require the reallocation of resources, possibly from the patronage awarded to other regime allies or even redirected from a government's social programs. How exactly 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 patronage strategy imposes on institutional development, social programs, and economic growth remain to be established for countries in Africa and other developing regions.

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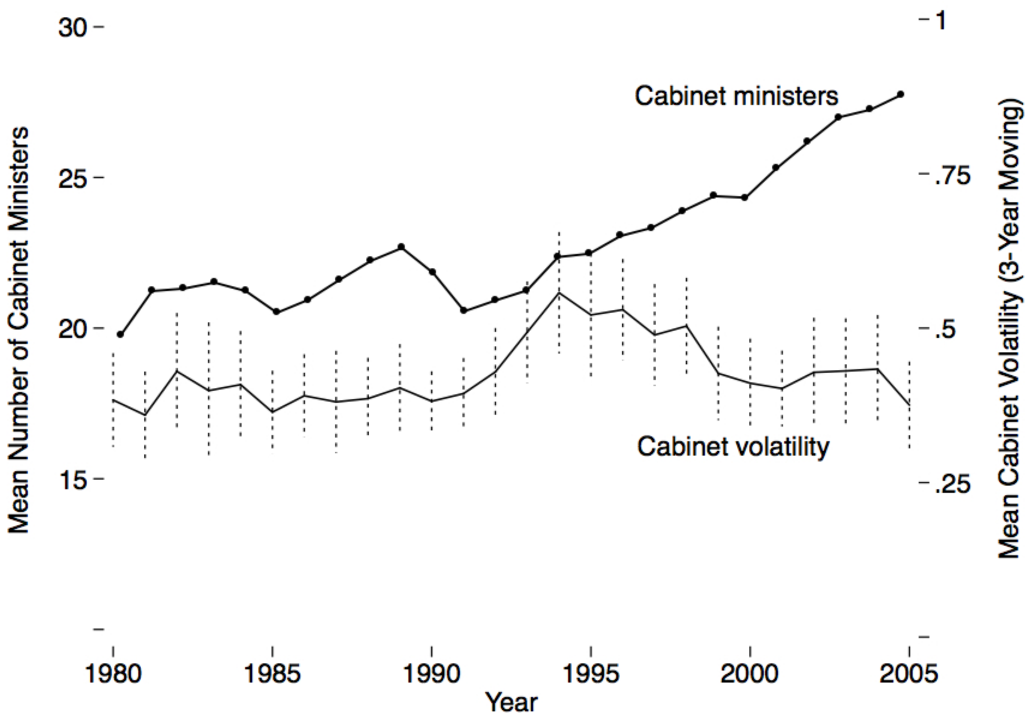
Figure 1. Cabinet Size and Volatility in African Countries



Note: Vertical dashed lines around the mean of cabinet volatility are 95% confidence intervals.

Figure 2. Pre-Electoral Cabinet Volatility and Post-Electoral Opposition Cooptation

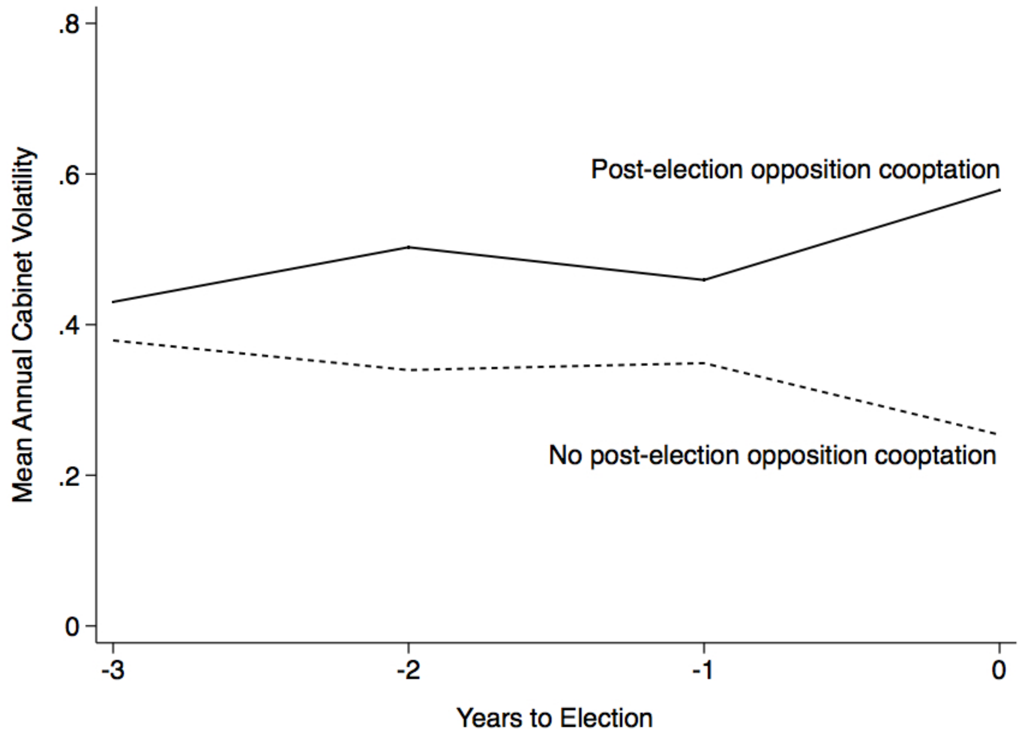


Table 1. Effective Number of Presidential Candidates in African Elections

	Model 1	Model 2	Model 3	Model 4	Model 5
Pre-electoral cabinet volatility	1.667***		1.783***	1.991***	
	(0.593)		(0.604)	(0.561)	
Prior opposition participation in cabinet					0.555**
					(0.243)
Runoff system		1.432	1.256	1.078	0.687
		(1.250)	(1.205)	(1.073)	(1.130)
Ethnic fractionalization		1.645	1.538	1.497	0.998
		(2.060)	(1.982)	(1.754)	(1.840)
Runoff × ethnic fractionalization		-2.623	-2.467	-2.859	-2.086
		(2.176)	(2.101)	(1.866)	(1.968)
Level of democracy				0.008	0.011
				(0.026)	(0.027)
Number of multiparty elections				0.099	0.036
				(0.113)	(0.115)
Regime years in power				-0.017	-0.021*
				(0.010)	(0.011)
Constant	1.848***	1.536	0.921	1.244	2.283**
	(0.280)	(1.214)	(1.187)	(1.098)	(1.105)
R^2	0.088	0.033	0.126	0.258	0.194
N	84	83	81	80	82

Note: OLS regression. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10, two-tailed tests.

Table 2. Effective Number of *Opposition* Presidential Candidates in African Elections

	Model 6	Model 7	Model 8	Model 9	Model 10
Pre-electoral cabinet volatility	1.752**		1.876**	1.454*	
	(0.767)		(0.766)	(0.797)	
Prior opposition participation in cabinet					0.622*
					(0.340)
Runoff system		2.613	2.399	1.665	1.116
		(1.891)	(1.829)	(1.871)	(1.892)
Ethnic fractionalization		3.376	3.135	2.344	1.641
		(3.055)	(2.954)	(2.977)	(2.998)
Runoff × ethnic fractionalization		-5.011	-4.840	-4.119	-3.071
		(3.198)	(3.092)	(3.107)	(3.152)
Level of democracy				0.012	0.016
				(0.039)	(0.039)
Number of multiparty elections				-0.149	-0.206
				(0.162)	(0.159)
Regime years in power				-0.021	-0.023
				(0.016)	(0.016)
Constant	1.741***	0.474	-0.0902	1.334	2.225
	(0.361)	(1.848)	(1.801)	(1.962)	(1.914)
R^2	0.064	0.056	0.130	0.173	0.173
N	78	75	75	75	75

Note: OLS regression. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10, two-tailed tests.