

# Partisan Portfolio Allocation in African Democracies\*

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## Abstract

What determines partisan portfolio allocation in African democracies? Despite the vast literature on government formation in Europe and Latin America, there have been no studies of partisan portfolio allocation in Africa. Although coalition governments are increasingly common in Africa, most studies focus on national leaders, and, thus, we know little about how ministerial posts are divided among cabinet parties. Using an original dataset of coalition governments in Africa from 1990 to 2014, we show that existing theories of partisan portfolio allocation can be successfully applied to African democracies. We find that African parties receive ministerial portfolios in rough proportion to their size, that formateur parties in Africa receive more ministerial portfolios than their European counterparts, and that the ‘formateur bonus’ is greater in Africa’s presidential democracies than in its parliamentary ones. Our analyses suggest that scholars can benefit from paying more attention to both coalition governments and legislatures in their analyses of African politics.

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\*NOTE: We thank Elizabeth Carlson, Charles Crabtree, Matt Golder, Indriði Indriðason, Marisa Kellam, Mike Kenwick, Irfan Nooruddin, Ken Opalo, Joseph Wright, audiences at Georgetown University, the University of Pittsburgh, the Université Cheikh Anta Diop de Dakar, and the 2015 Annual Meeting of the Midwest Political Science Association for helpful comments. We are grateful to Acir Almeida for sharing data and to Christiana Nisbet for research assistance. The data and all computer code necessary to replicate the results and figures in this analysis will be made available on publication. All statistical models were estimated using Stata 14.

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# 1 Introduction

The government formation literature is one of the largest and most developed in political science. Among other things, scholars have examined the partisan composition of governments (Martin and Stevenson, 2001), delays in government formation (Golder, 2010), and the allocation of ministerial portfolios (Warwick and Druckman, 2006; Laver et al., 2011; Bäck et al., 2011). How ministerial posts are allocated across cabinet parties is important because it indicates the likely direction of government policy (Laver and Shepsle, 1996) and can influence government stability (Golder and Thomas, 2014; Indriðason, 2015).<sup>1</sup> Although studies of government formation were first developed in the context of Western Europe, they have since been extended to Eastern Europe (Druckman and Roberts, 2005; Amorim Neto and Strøm, 2006; Druckman and Roberts, 2008; Tavits, 2009; Glasgow et al., 2011) and Latin America (Escobar-Lemmon and Taylor-Robinson, 2005; Amorim Neto, 2006; Amorim Neto and Samuels, 2010; Kellam, 2015). By contrast, there is almost no research on portfolio allocation in Africa, and nothing at all on the *partisan* allocation of ministerial portfolios.<sup>2</sup> In this article, we examine the extent to which existing theories of partisan portfolio allocation can be extended to apply to African democracies. We find that existing theories perform well in this context, in spite of some conventional wisdom that might suggest otherwise.

In many respects, the dearth of studies on partisan portfolio allocation in Africa is not surprising. African presidents have historically been viewed as the most powerful actors in their respective countries (Bratton and van de Walle, 1997; van de Walle, 2005), with the result that most studies focus on them rather than on the government as a whole. For example, the vast majority of studies dealing with distributive politics in Africa focus on co-ethnic favoritism on the part of the president as opposed to specific cabinet ministers or local political actors (Wantchekon, 2003; Posner, 2005; Kramon and Posner, 2013). The fact that voters typically attribute the provision of *local* public goods to the president also testifies to the widespread belief that African politics is dominated by the president (Harding, 2015; Carlson, 2016).

Many democracies in Africa are presidential rather than parliamentary. As a result, many African leaders do not explicitly require the support of a legislative majority for their governments to stay in office,

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<sup>1</sup>We use the terms ‘government’ and ‘cabinet’ interchangeably. In a parliamentary or semi-presidential democracy, the government comprises the prime minister and the other cabinet ministers; in a presidential democracy, it comprises the president and the other cabinet ministers.

<sup>2</sup>To our knowledge, there have only been three systematic studies that examine portfolio allocation in Africa. In the first, Arriola (2009) looks at how presidents use the number of cabinet portfolios to coopt opposition groups. In the second, Arriola and Johnson (2014) investigate when ministerial portfolios are allocated to women. And in the third, Francois et al. (2015) look at how cabinet portfolios are allocated across ethnic groups. None of these studies examine the *partisan* allocation of ministerial portfolios, which is the focus here.

and hence have less need to build coalitions across parties than do their counterparts in parliamentary democracies (Linz, 1990). This line of reasoning has led some scholars to assume that “coalition governments are rare” in Africa, that they are ephemeral when they do occur, and that partisan portfolio allocation is largely irrelevant (Doorenspleet and Nijzink, 2014, 7). This is precisely the explanation that Kadima (2006, 2) gives for the absence of comparative work on party coalitions in Africa.

The existing literature on African party system institutionalization also contributes to a sense that partisan coalitions are rare and, thus, not worthy of study (Kuenzi and Lambright, 2005; Lindberg, 2007). Some African countries have developed relatively stable party systems in which dominant presidential parties have few incentives to share the spoils of office with other parties (Oyugi, 2006). In other African countries, though, party system institutionalization remains weak, party switching is common, and party labels have little substantive meaning (Randall and Svåsand, 2002; Goeke and Hartmann, 2011; Young, 2014).<sup>3</sup> In either set of countries — if only one party matters or none of them do — there would seem to be little reason for a leader to use ministerial posts to build partisan coalitions.

Contrary to this conventional wisdom, we argue that research on partisan portfolio allocation in Africa is worth pursuing for a number of reasons. First, although presidents are typically the most powerful politicians in their respective countries, positions in the government are far from meaningless. For example, Ariola (2009) and Francois et al. (2015) argue that African leaders use cabinet portfolios to coopt opposition groups, manage elite relations, and strengthen their hold on power more generally. At the very least, ministerial portfolios provide access to the president’s patronage coalition (Thomson, 2000, 17; Wantchekon, 2003, 402; Green, 2010, 93, 94). Harding (2015), for example, shows that control of the transportation ministry in Ghana can be a useful tool for distributing patronage. The bottom line is that ministerial portfolios are valuable. Given this, we can expect political actors in Africa to bargain carefully over how portfolios are allocated in coalition governments, just as they do in other regions of the world.

Second, while the incentives to form coalition governments in presidential democracies may be weaker than in parliamentary ones, research on governments in Latin America shows that coalition governments do form in presidential regimes (Cheibub et al., 2004). For a long time, it was widely believed

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<sup>3</sup>This description of weak party system institutionalization is applicable to some countries in Latin America as well. Nonetheless, scholars have found it useful to examine portfolio allocation in that context anyway (Amorim Neto, 2006; Amorim Neto and Samuels, 2010). In addition, some scholars caution that characterizations of African party systems as being ‘exceptional’ may be overstated. For example, the authors of one study of African party systems conclude “that African party systems respond to institutional and sociological factors [...] in the same way as more established party systems. At least with regards to these characteristics, African party systems do not seem to be particularly distinctive at all” (Brambor et al., 2007, 316).

that coalition governments were rare in Latin America (Linz, 1994), and this helps to explain why the government formation literature was slower to develop in this region than in Europe. Although it is true that coalition governments occur somewhat less frequently in Latin America's presidential democracies than in Europe's parliamentary ones, a growing literature demonstrates that they remain quite common, particularly when the president has policy goals and needs legislative support to achieve them (Cheibub and Limongi, 2002; Amorim Neto, 2006; Amorim Neto and Samuels, 2010; Martinez-Gallardo, 2012; Kellam, 2017). Thus, there is no *a priori* reason to think that coalition governments and the allocation of partisan portfolios would not matter in Africa simply due to a predominance of presidential democracies.

Third, legislatures are becoming a critical arena for political action in Africa (Barkan, 2008). Indeed, scholars such as Opalo (2012) have explicitly called for more work to be conducted on the role of legislatures and legislative parties. Because legislatures are becoming more powerful, it is increasingly important for African leaders to build government coalitions that enjoy legislative support. One of the ways that African leaders can build and maintain support in the legislature is through the allocation of partisan portfolios. As a result, the call for more research on African legislatures is necessarily a call for more research on portfolio allocation and on executive-legislative relations more broadly.

Finally, coalition governments do occur in Africa (Oyugi, 2006) and, indeed, seem to be becoming more common over time (Kadima, 2014).<sup>4</sup> It is perhaps no coincidence, then, that Africanist scholars have recently begun to debate the merits and consequences of coalition governments (Lodge, 2014). For example, Resnick (2014) and Kapa and Shale (2014) argue that coalition governments are inefficient and that they produce delays in the policy-making process. Kadima (2014, 7, 20), on the other hand, suggests that joining coalition governments can allow parties "to be more effective in fragmented party systems than they would be on their own" and that coalition governments can help "foster a stronger sense of national cohesion." To a large extent, these recent debates highlight the need for additional work on coalition governments in Africa.

In this article, we examine whether existing theories of partisan portfolio allocation can be successfully applied to Africa using an original dataset on coalition governments in African democracies from 1990 through 2014. This is the first dataset, to our knowledge, that provides information about the partisan af-

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<sup>4</sup>Scholars have recently begun to examine *electoral* coalitions in Africa (Wahman, 2011). Electoral coalitions, which occur when parties decide to coordinate their electoral campaigns in some way (Golder, 2006, 16-21), can be important for understanding things like electoral results or democratization, and some of the government coalitions we examine are based on an electoral alliance. However, our focus is on the post-electoral period after legislative seats have been allocated. Specifically we are interested in government coalitions, which occur when more than one party controls ministerial portfolios in the cabinet. For more on the distinction between electoral coalitions and government coalitions, see Golder (2006).

filiation of ministers in Africa's coalition governments. Our analysis contributes to an emerging literature on political institutions in Africa that draws on general institutional arguments that have thus far been applied more frequently in other regions of the world. In line with our theoretical expectations, we find that African parties receive ministerial posts in rough proportion to the share of legislative seats they provide to the government, and that formateur parties — those parties charged with forming the government — receive a greater share of portfolios in Africa's presidential democracies than in its parliamentary ones. To place Africa in a wider comparative perspective and highlight the role that institutions play in the allocation of ministerial portfolios, we compare Africa's coalition governments with Europe's coalition governments. As predicted, we find that the 'formateur bonus' with respect to portfolio allocation is greater in Africa than in Europe. Overall, our results indicate that theories of partisan portfolio allocation, developed and tested in other regions of the world, do apply to the African context. They also suggest that scholars should pay more attention to coalition governments and executive-legislative relations in their analyses of African politics.

## 2 Theory

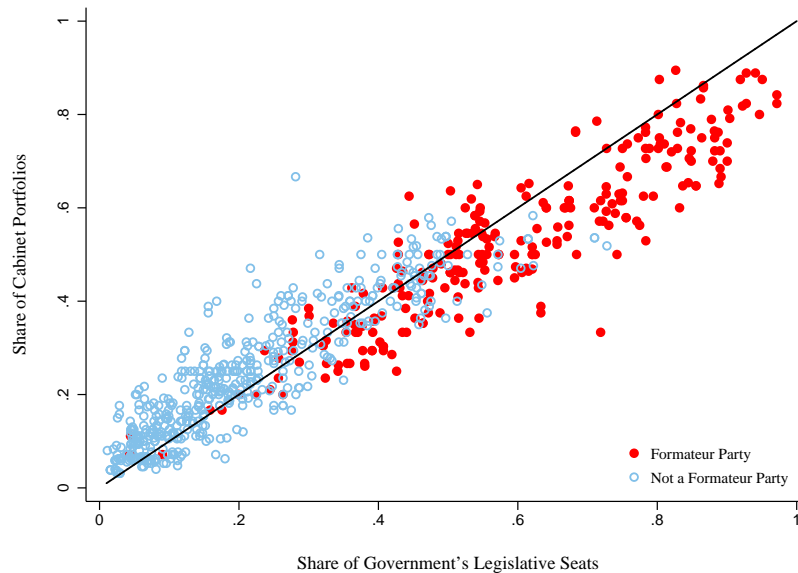
Governments can form as single-party governments or coalition governments. In coalition governments, leaders distribute ministerial portfolios across parties in order to obtain support. Parties value portfolios, either because of the perquisites that come with them or because of the opportunity they provide to shape policy. The perquisites of a ministerial post include personal benefits, such as prestige, a salary, a staff, an official car, and a travel budget. They can also include the ability to build and sustain systems of patronage (Tangri, 2000; Arriola, 2009; Rainer and Trebbi, 2011, 5-8). Ministers may be able to use their power to appoint supporters to the civil service or direct rents to their constituencies. As an example, Thomson (2000, 115) notes how "ministers of construction and town planning [in Côte d'Ivoire] frequently awarded their home towns lucrative development schemes." Ministers with strong policy preferences are often able to see their preferences realized or at least shape the policy agenda in beneficial ways.

The predominant approach in the literature to explaining partisan portfolio allocation is based on 'Gamson's Law'. According to Gamson (1961, 376), a party "will expect others to demand from a coalition a share of the payoff proportional to the amount of resources which they contribute to a coalition." Traditionally, the legislative seats that parties control are viewed as the 'resources' they contribute to a coalition and the ministerial portfolios they obtain are treated as the 'payoffs'. Thus, if two parties, *A* and *B*, with 100 and

50 legislative seats respectively, form a coalition government, then Party *A* will expect to get two-thirds of the ministerial portfolios ( $\frac{100}{150} = \frac{2}{3}$ ) and Party *B* will expect to get one third of them ( $\frac{50}{150} = \frac{1}{3}$ ). Empirical studies of European democracies have repeatedly shown support for Gamson’s claim that ministerial portfolios will be allocated among cabinet parties in rough proportion to the share of seats they provide to the government’s legislative majority (Warwick and Druckman, 2001). Indeed, Gamson’s Law has developed a reputation as one of the strongest empirical laws in all of political science (Warwick and Druckman, 2006).

Studies of portfolio allocation in Europe actually note a small, but systematic, deviation from Gamson’s Law. This deviation can be seen in Figure 1, where we plot a government party’s share of cabinet portfolios against its share of the government’s legislative seats in 14 West European parliamentary democracies from 1945 to 2000. The strong, positive empirical relationship we see is what the literature refers to as Gamson’s Law (Laver et al., 2011). Note, though, the deviations from perfect proportionality. The black line indicates the scenario where portfolios are allocated in a 1:1 relationship. The circles tend to be above this line when a cabinet party is small, but below it when a cabinet party is large, indicating that smaller parties tend to be overcompensated when it comes to ministerial posts while larger parties tend to be under-

Figure 1: Partisan Portfolio Allocation in Western Europe, 1945-2000



*Note:* The circles indicate a government party’s share of cabinet portfolios and its share of the government’s legislative seats. The circles are open and blue if the government party is not a formateur party and are solid red if it is a formateur party. A formateur party is the party that is charged with forming the government. Data are for 777 cabinet parties in 259 coalitions in fourteen West European parliamentary democracies from 1945 to 2000, and come from Warwick and Druckman (2006); we excluded nine coalition cabinets where the formateur was not identified. The upward sloping black line indicates the scenario where portfolios are allocated in a perfectly proportional manner.

compensated (Laver and Schofield, 1985; Bäck et al., 2009; Indriðason, 2015). Country-specific regressions indicate that this pattern occurs not only on average across these fourteen countries but also within each one (Golder and Thomas, 2014). Although large parties are generally undercompensated, Figure 1 suggests that formateur parties (solid red circles) are particularly disadvantaged.

It turns out that this pattern, where formateur parties are disadvantaged when it comes to portfolio allocation, is the exact opposite of the predictions made by standard bargaining models of government formation. Existing accounts of government formation are typically based on the canonical Baron-Ferejohn (1989) model, in which three parties, none of which control a legislative majority, attempt to form a government with majority support by making alternating offers. A formateur (proposer) party, which is selected on the basis of party size, makes a proposal, comprising a distribution of portfolios and a government policy position, to the other parties.<sup>5</sup> All parties then vote on the formateur's proposal. If the proposal receives majority support, then the proposed government takes office. If the proposal does not receive majority support, then a new formateur is chosen and the process repeats itself. Once a proposal is accepted, the government forms and the game ends. Bargaining is costly in this model — the more rounds it takes a government to form, the less time the cabinet parties have to enjoy the perquisites of power. In effect, the 'pie' the parties are bargaining over shrinks with time. Because potential coalition partners are aware that delaying the government formation process shrinks the size of the pie, the formateur need only offer them the equivalent of the discounted goods that would be available in later bargaining rounds to get them to agree to her proposal immediately. This leaves 'extra' portfolios on the table that the formateur can keep — a 'formateur bonus'.

As Figure 1 illustrates, formateur parties in European parliamentary regimes, far from receiving a bonus, suffer a disadvantage. Recent work suggests that whether formateurs get more or less than their proportional share of portfolios depends on if there is a vote of no confidence (Golder and Thomas, 2014; Indriðason, 2015).<sup>6</sup> This new research argues that the standard bargaining model of coalition formation is more applicable to presidential regimes than parliamentary ones. In a presidential regime, the formateur

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<sup>5</sup>Depending on the specific model, formateurs are chosen either in order of party size, from largest to smallest, or probabilistically, with the likelihood of selection proportional to legislative size (Austen-Smith and Banks, 1988; Baron and Ferejohn, 1989).

<sup>6</sup>Two other stories for a formateur disadvantage have been examined but found wanting. The first story focuses on the salience or importance of different ministerial portfolios. Perhaps it is the case that formateur parties receive a smaller share of ministerial portfolios but obtain the most salient or important posts. Although there is some mild evidence for this, Warwick and Druckman (2006, 635) find that "salience-weighted portfolio payoffs overwhelmingly mirror seat contributions" and that formateur parties remain undercompensated. The second story focuses on the 'lumpiness' of ministerial portfolios. Ministerial portfolios are 'lumpy' in that one cannot allocate a fraction of a ministerial post to a party to match that party's contribution of legislative seats to the government. This could conceivably lead to a situation in which small parties are overcompensated, particularly when the cabinet is small. Examining this possibility, though, Indriðason (2015, 14) finds that "the discreteness of the portfolio distribution is not responsible for the observed deviations from perfect proportionality."

party (always the president's party) gets to stay in power until the end of the president's term. In contrast, the formateur party in a parliamentary regime can lose power whenever the government loses the support of a legislative majority. This is because of the parliamentary vote of no confidence, which allows a legislative majority to dismiss the government.<sup>7</sup> The key feature of the vote of no confidence is that parliamentary governments must enjoy the support of a legislative majority not only to *enter* office but also to *stay* there.

Bargaining models of government formation implicitly assume that parties receive all of the benefits associated with being in power as soon as the bargaining is successfully concluded. In reality, though, cabinet parties do not receive an immediate one-time payoff when they come to power; instead, they receive their benefits over the government's lifetime. For formateurs in presidential regimes, the distinction between entering office and staying in office is largely irrelevant, as they serve a fixed term. Not having the support of a legislative majority may make passing legislation more difficult, but it does not threaten the ability of the president or her party to stay in power. In such a scenario, some presidents may choose to form a coalition cabinet that controls a legislative majority to facilitate the implementation of their policy agenda. In contrast, the vote of no confidence means that formateurs in parliamentary democracies always have to worry about both government formation *and* government survival when allocating ministerial portfolios.

Governments in parliamentary democracies are unlikely to be stable if non-formateur parties have been allocated just enough portfolios to make them indifferent between joining the government and continuing with another round of bargaining, as most bargaining models of government formation predict. Coalition partners who are satisfied with their share of portfolios and policy compromises when the government first forms might recalculate how large a share they are due if conditions change during the life of the government (Lupia and Strøm, 1995). It is the possibility that coalition partners might turn against the government if they become dissatisfied with the status quo and participate in, or threaten to participate in, a vote of no confidence that creates incentives for formateur parties to allocate a higher-than-predicted share of portfolios to non-formateur parties (Golder and Thomas, 2014; Indriðason, 2015). In presidential regimes, the absence of the vote of no confidence means that formateur parties are not reliant on their coalition partners for their continued survival in office and, as a result, will value their contribution of legislative seats to the government less than would be the case in parliamentary regimes. This means that non-formateur parties cannot

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<sup>7</sup>We follow a fairly common practice (Laver and Schofield, 1998) and include semi-presidential regimes in our 'parliamentary' category. This is because our theoretical interest has to do with the presence or absence of the no confidence vote (Amorim Neto and Samuels, 2010). Parliamentary and semi-presidential regimes have votes of no confidence; presidential regimes do not (Clark et al., 2013, 459-460).



expect the offers they receive to enter the cabinet to be as generous from presidential formateurs as from prime ministerial ones. It follows that formateur parties should receive a lower share of portfolios, relative to their legislative size, in parliamentary regimes than in presidential ones.

This general theoretical framework of partisan portfolio allocation has been applied successfully in Western Europe, Eastern Europe, and Latin America. Several scholars claim that African leaders are motivated by the same concerns as other leaders when forming coalition governments (Oyugi, 2006, 74; Kadima, 2014, 8). As a result, we see no reason why this framework cannot profitably be applied to African democracies as well. In our upcoming analyses, we compare patterns of portfolio allocation in Europe with patterns of portfolio allocation in Africa. We do this to highlight how contextual, and, in particular, institutional, features of the government formation process in African democracies produce systematic, but theoretically intuitive, differences in partisan portfolio allocation. The importance of institutional context for partisan portfolio allocation has generally been overlooked in much of the existing literature. One reason for this is that scholars have typically conducted region-specific analyses in which there is limited variation when it comes to institutions. Europe, for example, is dominated by parliamentary regimes, whereas Latin America is dominated by presidential regimes. Our analysis is unusual in explicitly examining cross-regional (and within regional) variation in partisan portfolio allocation.<sup>8</sup>

There are at least three contextual factors that would lead one to expect slightly different patterns of portfolio allocation in African democracies compared with European ones. The first, and most important, is the presence of presidential democracies in Africa. Presidential democracies are common in Africa but rare in Europe. As we explained earlier, we expect the government formation process to be advantageous for formateur parties in presidential democracies due to the absence of the vote of no confidence. This implies that African formateurs will not be as generous, on average, to their coalition partners when it comes to portfolio allocation as their European counterparts.

The second is the relatively weak institutionalization of African legislatures. It is widely recognized that the typical European legislature is considerably more powerful and effective than the typical African legislature (Fish and Kroenig, 2009). This is important because legislative party leaders are in a significantly

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<sup>8</sup>We choose to contrast partisan portfolio allocation in Africa with partisan portfolio allocation in Europe for two reasons. The first is that the vast majority of the theoretical and empirical work on government formation and partisan portfolio allocation has historically focused on Europe. The second is that the institutional contexts in Europe and Africa are sufficiently distinct to allow us to derive clear theoretical predictions about how partisan portfolio allocation should differ across the two regions. In [Online Appendix C](#), we compare partisan portfolio allocation in Africa and Latin America (and Europe), using data on Latin American government coalitions from Almeida (2003). The results from this additional comparison provide further support for our underlying theoretical framework.

weaker bargaining position vis-à-vis the formateur when they lack effective legislative powers and when members of the legislature play only a limited role in the policy-making process. Indeed, formateurs are likely to have fewer incentives to build coalitions when the legislature is weak (Martinez-Gallardo, 2012). In line with this, Alemán and Tsebelis (2011, 23) find that non-presidential parties in Latin America are less likely to enter the cabinet when the legislature has low capacity and is poorly-institutionalized. It follows that parties in weakly-institutionalized legislatures, being less valuable to the formateur for implementing her policy agenda, can expect to receive fewer cabinet posts than in strongly-institutionalized legislatures.

The third contextual factor has to do with the relative lack of institutionalized and programmatic parties in Africa. Compared to the party systems found in the established democracies of Europe, the party systems in Africa's democracies are less institutionalized. Among other things, African party systems are characterized by higher levels of electoral volatility and party switching (Ferree, 2010; Goeke and Hartmann, 2011; Young, 2014). Leaders of weakly-institutionalized parties are likely to be at a disadvantage when it comes to bargaining with the formateur over the distribution of cabinet portfolios due to their relative lack of experience and the fact that they cannot credibly claim to provide consistent legislative support into the future. Compared to European parties, African parties also tend to be more particularistic (patronage-based) and less programmatic (policy-based) (Elischer, 2013, 19-20). This is important because, as Kellam (2015) notes, formateurs are likely to be able to get away with offering fewer ministerial portfolios to particularistic parties than to programmatic ones. Programmatic parties want to influence policy, and the most effective way to achieve this is by controlling cabinet positions. Although particularistic parties value ministerial posts as well, they also value other positions, such as lower-level government jobs for party members and supporters, or positions on boards of directors of state-owned businesses for party elites. A consequence of this is that formateurs can 'buy' the support of particularistic parties with fewer cabinet positions.

All three of these contextual factors suggest that the party managing the government formation process, the formateur party, is in a stronger bargaining position in African democracies than in European ones. This leads to the *Formateur Hypothesis*:

**Formateur Hypothesis:** Controlling for their size, formateur parties in Africa receive a bonus when it comes to portfolio allocation. In contrast, formateur parties in Europe do not receive a bonus when it comes to portfolio allocation and may, in fact, suffer a formateur disadvantage.

The central expectation from Gamson's Law is that portfolios should be positively related to party size. As a party's share of the legislative seats increases, so does its bargaining power, and thus the share of

ministerial portfolios that it can expect to receive in the government formation process. The extent to which portfolios are related to party size may well vary between African and European democracies, though. As the *Formateur Hypothesis* indicates, formateur parties in Africa should receive a bonus when it comes to portfolio allocation. It follows that non-formateur parties in Africa will not do as well as non-formateur parties in Europe. In other words, while the share of portfolios going to a non-formateur party should always increase with its share of the government's legislative seats, it should not increase *as much* for non-formateur parties in Africa compared to non-formateur parties in Europe. The fact that there are, on average, more non-formateur parties than formateur parties suggests that the relationship between party size and portfolios will be driven largely by the seats and portfolios controlled by non-formateur parties. To the extent that this is the case, it implies that the size of the positive relationship between a party's share of the government's legislative seats and its share of the portfolios should be smaller in Africa than in Europe; it should certainly not be larger. This leads to the *Party Size Hypothesis*:

**Party Size Hypothesis:** Portfolios are positively related to a party's share of the government's legislative seats. Controlling for formateur status, this positive effect should never be larger in Africa than in Europe.

Theory also suggests that there should be clear differences in the patterns of portfolio allocation across parliamentary and presidential democracies *within* Africa. Specifically, formateurs in Africa's parliamentary democracies should receive a lower share of portfolios, controlling for their size, than formateurs in Africa's presidential democracies. Recall that this has to do with the absence of the vote of no confidence in presidential democracies. However, we do not expect formateur parties in Africa's parliamentary democracies to be as disadvantaged relative to non-formateur parties as they are in Europe. This is because formateur parties in Africa's parliamentary democracies still enjoy a stronger bargaining position relative to their European counterparts due to the weak institutionalization of African legislatures and the lack of stable, programmatic parties. This leads to the *Parliamentary Formateur Hypothesis*:

**Parliamentary Formateur Hypothesis:** Controlling for their size, formateur parties receive a smaller share of portfolios in Africa's parliamentary democracies than in Africa's presidential democracies. Formateur parties in Africa's parliamentary democracies, though, should receive a larger share of portfolios than their counterparts in Europe's parliamentary democracies.

As always, portfolios should be positively related to a party's share of the government's legislative seats in both parliamentary and presidential democracies in Africa. However, the extent to which portfo-

lios are related to party size is likely to vary across the two types of democracy. As previously indicated, non-formateur parties can expect to be more generously rewarded with ministerial portfolios in parliamentary democracies than in presidential ones. In effect, each seat that a non-formateur party provides to the government's legislative majority in a parliamentary democracy is likely to be rewarded with a larger number of portfolios than each seat provided by a non-formateur party in a presidential democracy. In other words, the positive relationship between party size and portfolios should, controlling for formateur status, be larger in Africa's parliamentary democracies than in Africa's presidential democracies. This leads to the

*Parliamentary Party Size Hypothesis:*

**Parliamentary Party Size Hypothesis:** Portfolios are positively related to a party's share of the government's legislative seats in both parliamentary and presidential democracies in Africa. Controlling for formateur status, this positive effect should be larger in parliamentary democracies than in presidential ones.

### 3 Empirical Analysis

In this section, we first describe the data employed to test our hypotheses regarding partisan portfolio allocation. We then present our model specification and discuss the results.

#### 3.1 Data

Our data on coalition governments in African democracies come from an original dataset we collected covering the time period from 1990 through 2014. We started with 1990 as this is when many African countries transitioned from single-party dictatorships to multi-party democracies (Golder and Wantchekon, 2004). We began with the fifty-five members of the African Union and then excluded country-years that were not considered democratic. Following common practice, we considered a country-year as democratic if the country scored at least a 6 on the -10 to +10 scale provided by Polity IV (Marshall et al., 2014). This left us with twenty-three African countries that experienced democratic country-years at some point from 1990 to 2014: Benin, Botswana, Burundi, Cape Verde, Comoros, The Gambia, Ghana, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Namibia, Niger, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, South Africa, and Zambia.

To test our hypotheses, we have to first identify coalition governments. As is standard in the government formation literature, we code a new government as forming when there has been an election, a change

in the identity of the head of the government, a change in the cabinet's partisan composition, or the government resigns (Müller and Strøm, 2000). As this coding rule indicates, new governments can form both after elections (post-election governments) and between elections (inter-election governments).<sup>9</sup> Using a variety of sources, we were able to identify 162 African governments, 105 (64.8%) of which are post-election governments and 57 (35.2%) of which are inter-election governments. Of these 162 governments, 89 (54.9%) are single-party governments and 73 (45.1%) are coalition governments. Inter-election governments are almost 50% more likely to be coalition governments than post-election governments. We found no clear evidence of coalition governments in seven of our twenty-three African democracies during our period of study: Botswana, Cape Verde, The Gambia, Namibia, Senegal, Seychelles, and Zambia.<sup>10</sup> As a result, we dropped these countries.

Despite the received wisdom and explicit claims of some Africanist scholars (Doorenspleet and Nijzink, 2014, 7), coalition governments are not particularly rare in Africa. As our data indicate, almost half of Africa's democratic governments have been coalition governments. These coalition governments are distributed fairly evenly over regime type. 43.3% of the governments in our parliamentary democracies and 48.3% of the governments in our presidential democracies are coalition governments. These figures confirm what recent studies of governments in Latin America have shown (Cheibub et al., 2004), which is that coalition governments are not, as was once thought, uncommon in presidential democracies.

To test our hypotheses we not only have to identify coalition governments, but we also have to identify the partisan affiliation of each cabinet minister.<sup>11</sup> In general, it is relatively easy to obtain the names of cabinet ministers, to identify the ministries in which they are placed, and to determine whether they are male or female. Obtaining information on the partisan affiliation of *each* and *every* cabinet minister in a coalition government, though, is incredibly difficult.<sup>12</sup> This is because publicly accessible official documents and standard sources of political events rarely provide this information.<sup>13</sup> Despite our best efforts, we were

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<sup>9</sup>Oyugi (2006) provides one of the few discussions of coalition governments in the African politics literature. However, he focuses only on *post-election* coalition governments in four countries during the 1990s.

<sup>10</sup>A coalition government did form in Zambia in 2015. However, this government formed outside of the window of our study (1990-2014) and is therefore not included in our upcoming analyses.

<sup>11</sup>In cases where portfolios are held by ministers who are not affiliated with a political party in the legislature, we follow the existing literature and exclude these ministers from our analyses (Druckman and Roberts, 2008).

<sup>12</sup>Existing datasets of cabinets in African countries do not contain this information. For example, Arriola's (2009) dataset includes the raw number of cabinet ministers who are in government on an annual basis, but it does not include their partisan affiliation. Arriola and Johnson's (2014) dataset adds the proportion of men and women in each cabinet annually, but again does not include their partisan affiliation. Francois, Rainer, and Trebbi's (2015) dataset includes the ethnic identity of individual ministers, but it too does not include their partisan affiliation.

<sup>13</sup>We examined a wide variety of documents and sources in our data collection effort, including media accounts, case studies, *Africa South of the Sahara*, the African Elections Database, the *Africa Research Bulletin*, the Electoral Institute for Sustainable

unable to collect complete information on the partisan allocation of portfolios for all of Africa's coalition governments. In many cases, we know which parties are in the cabinet and even the number of portfolios allocated to some of the parties. The problem is that we do not have reliable information on the number of portfolios given to *all* of the cabinet parties, and so we cannot include these cases in our analyses.

Ultimately, we were able to obtain complete information on 84 cabinet parties in twenty-eight coalitions in nine African democracies: Burundi, Ghana, Guinea-Bissau, Kenya, Lesotho, Malawi, Mauritius, São Tomé and Príncipe, and South Africa.<sup>14</sup> The full set of coalition governments is shown in [Online Appendix A](#). Eleven of the coalition governments formed in presidential democracies (Burundi, Ghana, Kenya, Malawi) and seventeen formed in parliamentary (Lesotho, Mauritius, South Africa) or semi-presidential (Guinea-Bissau, São Tomé and Príncipe) democracies. As explained earlier, we will continue to refer to parliamentary and semi-presidential democracies as 'parliamentary' because they both have the vote of no confidence. In order to test our hypotheses, we also had to identify the formateur party. The formateur party is the party of the president in presidential regimes and the party of the prime minister in parliamentary regimes. Two of our parliamentary coalition cabinets (one in Guinea-Bissau and one in São Tomé and Príncipe) had non-partisan prime ministers and therefore had to be dropped. This means that our final sample includes 76 cabinet parties in twenty-six coalition governments in nine African democracies. In line with the government formation literature, our unit of analysis is the cabinet-party.<sup>15</sup> To illustrate the basic structure of our data, [Table 1](#) describes two African coalition governments, one in a presidential democracy (Kenya) and one in a parliamentary democracy (Mauritius). Formateur parties are identified with an asterisk.

Our data on European governments comes from [Warwick and Druckman \(2006\)](#). After excluding governments without an identified formateur party, we are left with information on 777 cabinet parties in

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Democracy in Africa, *Keesings*, the *Political Handbook of the World*, the *Europa World Year Book*, and IPU-Parline, among others.

<sup>14</sup>There is no reason to believe that the coalition governments for which we were able to obtain complete information are systematically different in ways that would affect the partisan allocation of portfolios from coalition governments for which we were able to obtain only partial information. In our experience, there was no rhyme nor reason as to why a particular source that we consulted would contain complete, incomplete, or no information on the partisan allocation of portfolios. It was not unusual, for example, for a source to provide the information that we required for a particular coalition government in some country but not to provide this same information for an earlier or later coalition in the same country. In an attempt to evaluate our claim that our sample of coalition governments is representative of the larger population of coalition governments in African democracies, we estimated a logit model where our dependent variable was 1 if we had complete information on the partisan allocation of portfolios in a coalition government, and 0 otherwise. As independent variables, we used a country's wealth, its regime type, its level of democracy, its level of ethnic heterogeneity, and the size of the cabinet (number of ministers). None of these variables had a statistically significant effect on the probability that we had complete information on the partisan allocation of portfolios in a coalition government.

<sup>15</sup>Unlike studies of government formation in other regions of the world, the previous research on portfolio allocation in Africa has used the country-year as the unit of analysis ([Arriola, 2009](#); [Arriola and Johnson, 2014](#); [Francois et al., 2015](#)). We prefer not to use the country-year for our analyses because doing so would not allow us to take account of the fact that cabinet parties are clustered within governments, and it would overstate the amount of information in the sample by having the same government appear multiple times.

259 coalition governments in fourteen West European parliamentary democracies from 1945 through 2000. These are the observations shown earlier in Figure 1.

## 3.2 Model Specification and Results

We have two sets of hypotheses. The first has to do with partisan portfolio allocation in Africa and Europe, while the second has to do with partisan portfolio across presidential and parliamentary regimes in Africa.

### 3.2.1 Comparing across Regions: Africa and Europe

To test the *Formateur Hypothesis* and the *Party Size Hypotheses*, we created several measures. The dependent variable, *Portfolioshare*, is the share of ministerial portfolios controlled by a cabinet party. *Seatshare* measures the share of legislative seats that a party contributes to the total number of seats controlled by the government. *Formateur* is a dichotomous variable that equals 1 if a party is the formateur party, 0 otherwise. As noted earlier, the formateur party is the party of the president in presidential regimes and the party of the prime minister in parliamentary regimes (Warwick and Druckman, 2006). *Africa* is a dichotomous variable that equals 1 when the government forms in Africa and 0 if it forms in Europe. We also created two interaction terms, *Formateur × Africa* and *Seatshare × Africa*, to test the conditional claims that the effect of formateur status and party size depends on whether the coalition government forms in Africa or Europe.

In line with existing studies of portfolio allocation, we use ordinary least squares to test our hypotheses. The exact model specification is shown in Eq. (1) below:

$$\begin{aligned} \text{Portfolioshare} = & \beta_0 + \beta_1 \text{Seatshare} + \beta_2 \text{Formateur} + \beta_3 \text{Africa} \\ & + \beta_4 \text{Seatshare} \times \text{Africa} + \beta_5 \text{Formateur} \times \text{Africa} + \epsilon. \end{aligned} \quad (1)$$

We might suspect that portfolios are not allocated independently across parties in a coalition and, thus, that we should employ clustered standard errors (Williams, 2000). Clustered standard errors, though, are asymptotic in the number of clusters and it is not clear that twenty-six African coalitions (or fewer in some upcoming analyses) is sufficiently large to make their use appropriate. Scholars differ on exactly how many clusters are needed to get reliable estimates. Arcenaux and Nickerson (2009, 182) state that the typical rule of thumb in the medical literature is about 20 clusters. However, Wooldridge (2003, 135) claims that problems can still arise in some situations if the number of clusters is less than 40. We choose to report robust standard errors, but note here that our results throughout are robust to the use of clustered standard

Table 1: Two Examples of Coalition Governments in Africa

Cabinet Code	Country	Regime	Date In	President/ Prime Minister	Parties in Government	Seats per Party (%)	Portfolios per Party (%)
7	Kenya	Presidential	01-03-2003	Kibaki	<ol style="list-style-type: none"> <li>1. Liberal Democratic Party (LDP)</li> <li>2. Democratic Party (DP)*</li> <li>3. Forum for the Restoration of Democracy-Kenya (FORD-K)</li> <li>4. National Party of Kenya (NPK)</li> </ol>	<p>59 (47.2%)            39 (31.2%)            21 (16.8%)            6 (4.8%)</p>	<p>9 (36.0%)            12 (48.0%)            3 (12.0%)            1 (4.0%)</p>
16	Mauritius	Parliamentary	09-27-1991	Jugnauth	<ol style="list-style-type: none"> <li>1. Mauritian Socialist Movement (MSM)*</li> <li>2. Mauritius Militant Movement (MMM)</li> <li>3. Democratic Labour Movement (MTD)</li> <li>4. Rodriguan People's Organization (ORP)</li> </ol>	<p>29 (49.2%)            26 (44.1%)            2 (3.4%)            2 (3.4%)</p>	<p>13 (52.0%)            10 (40.0%)            1 (4.0%)            1 (4.0%)</p>

*Note:* 'Date In' refers to the date on which the cabinet was announced; if the date could not be confirmed, it is the date that the cabinet was sworn in. \* indicates the party of the formateur. The percentage of seats each party contributes to the government total is shown in parentheses next to the number of legislative seats controlled by each party. The percentage of portfolios each party controls out of the total number of partisan portfolios in the cabinet is shown in parentheses next to the number of portfolios obtained by each party.



errors as well as cluster-robust bootstrapped standard errors (Cameron and Trivedi, 2009, 420-421).

The marginal effect of *Formateur* on *Portfolioshare* is  $\beta_2 + \beta_5 \text{Africa}$ . According to the *Formateur Hypothesis*, formateur parties in Europe will not receive a bonus when it comes to portfolio allocation and may suffer a formateur disadvantage. As a result,  $\beta_2$  should be zero or negative. In contrast, formateur parties in Africa will receive a bonus, and hence  $\beta_5$  and  $\beta_2 + \beta_5$  should both be positive.

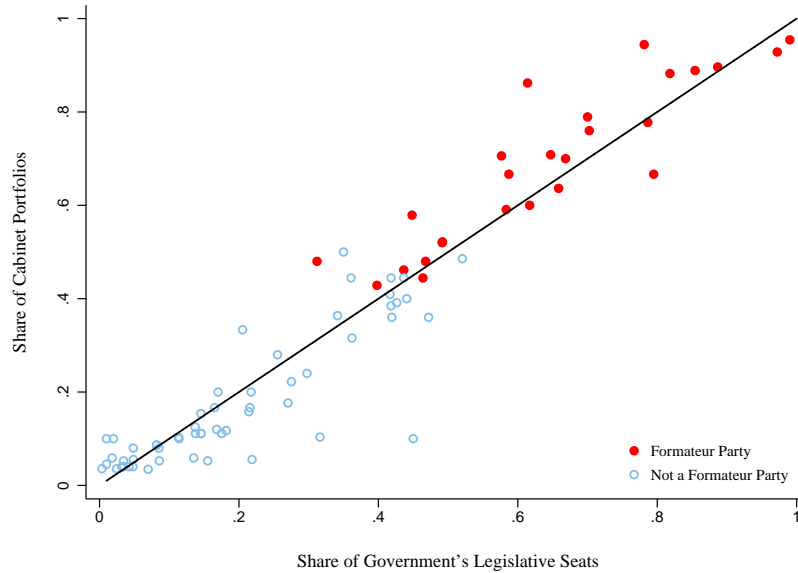
The marginal effect of *Seatshare* on *Portfolioshare* is  $\beta_1 + \beta_4 \text{Africa}$ . According to the *Party Size Hypothesis*, larger parties should always receive a greater share of ministerial portfolios than smaller parties irrespective of whether the government forms in Africa or Europe. As a result,  $\beta_1$  and  $\beta_1 + \beta_4$  should both be positive. Controlling for *formateur status*, the positive effect of *Seatshare* on *Portfolioshare* should never be larger in Africa than Europe, signifying that  $\beta_4$  should be zero or negative.

The fact that all interactions are symmetric (Berry et al., 2012) means that our claim that the effects of *Formateur* and *Seatshare* on *Portfolioshare* depend on whether a government forms in Africa or Europe logically implies the claim that the effect of forming a government in Africa on *Portfolioshare* depends on the values of *Formateur* and *Seatshare*. The marginal effect of *Africa* on *Portfolioshare* is  $\beta_3 + \beta_4 \text{Seatshare} + \beta_5 \text{Formateur}$ . According to our theory, non-formateur parties in Africa should receive a lower share of portfolios at all levels of party size than non-formateur parties in Europe. As a result,  $\beta_3 + \beta_4 \text{Seatshare}$  should be negative for all values of *Seatshare*. However, formateur parties in Africa should see a larger share of portfolios at all levels of party size than formateur parties in Europe. Hence,  $\beta_3 + \beta_4 \text{Seatshare} + \beta_5$  should be positive for all values of *Seatshare*.

Before presenting the results from our empirical model, it is useful to first examine the data on coalition governments in Africa visually. In Figure 2, we plot a government party's share of cabinet portfolios against its share of the government's legislative seats using our African data. As in Figure 1, the solid black line indicates the scenario where portfolios are allocated in a perfectly proportional manner. Note that there is strong evidence to support Gamson's Law — portfolios are allocated in a roughly proportional manner, just as they are in Europe. The average deviation from the perfect proportionality line is just 0.064.<sup>16</sup> As in

<sup>16</sup>The 1993 interim South African constitution mandated proportional portfolio allocation. Specifically, Section 88 stated that parties holding at least 20 legislative seats and which decided to participate in a national unity government were entitled to receive cabinet portfolios in proportion to the share of seats they provided to the government's legislative majority. This constitutional requirement for proportionality, which affected the 1994 South African coalition government, was removed when the new constitution came into effect in 1996. It is commonly believed that Burundi's 2005 constitution also mandates the proportional allocation of ministerial portfolios. However, this is incorrect. Article 129 states that only parties receiving 5% of the vote can enter government and that these parties are entitled to a share of ministerial portfolios at least equal to their share of legislative seats. There are two key points here. The first is that proportional portfolio allocation is not mandated. The second and more important point is that

Figure 2: Partisan Portfolio Allocation in Africa



*Note:* The circles indicate a government party’s share of cabinet portfolios and its share of the government’s legislative seats. The circles are open and blue if the government party is not a formateur party and are solid red if it is a formateur party. Data are for 76 cabinet parties in twenty-six coalition governments in nine African democracies from 1990 through 2014. The upward sloping black line indicates the scenario where portfolios are allocated in a perfectly proportional manner. The average deviation from the perfect proportionality line is 0.064.

Europe, there is a small systematic deviation from perfect proportionality. However, the deviation we see in Africa is quite different from the one we see in Europe. In contrast to Europe, but in line with our theoretical story, large parties in Africa tend to be overcompensated when it comes to portfolio allocation, while small parties tend to be undercompensated. This is indicated by the fact that the circles are generally above the black line when a cabinet party is large, but below it when a cabinet party is small. As predicted, Africa’s formateur parties, which are shown with solid red circles, appear to be particularly advantaged.

The results from six different models are shown in Table 2. The first set of three models examines the relationship between party size and portfolio allocation when we ignore the distinction between formateur and non-formateur parties. The second set of models examines the same relationship when we distinguish between formateur and non-formateur parties. Within each set of models, the first ‘combined’

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Article 129 refers to a party’s share of legislative seats, not its share of the *government’s* legislative seats. In practice, the proportionality of portfolio allocation in Burundi’s coalition governments is lower than that found in many other coalition governments in Africa. To evaluate whether individual coalition governments, or coalition governments in particular countries, are influencing the results in our upcoming analyses, we adopted a variety of jackknife procedures. Specifically, we sequentially dropped each coalition government (and each individual country) and then reestimated our models for each of the reduced datasets. These robustness checks indicate that none of the individual coalition governments or countries are significantly influencing our results.

Table 2: The Effect of Party Size and Formateur Status on Portfolio Allocation in Europe and Africa

Dependent Variable: Percentage of Ministerial Portfolios ( <i>Portfolioshare</i> )						
Regressor	Ignore Formateur Status			Include Formateur Status		
	Combined	Europe	Africa	Combined	Europe	Africa
Seatshare	0.79** (0.01)	0.79** (0.01)	1.05** (0.03)	0.83** (0.01)	0.83** (0.01)	0.86** (0.04)
Formateur				-0.03** (0.01)	-0.03** (0.01)	0.13** (0.03)
Africa	-0.09** (0.01)			-0.06** (0.01)		
Seatshare × Africa	0.26** (0.03)			0.02 (0.04)		
Formateur × Africa				0.16** (0.03)		
Constant	0.07** (0.004)	0.07** (0.004)	-0.02 (0.01)	0.07** (0.004)	0.07** (0.004)	0.004 (0.01)
Government Parties (N)	853	777	76	853	777	76
Coalition Governments	285	259	26	285	259	26
$R^2$	0.90	0.89	0.94	0.91	0.90	0.96

\* indicates  $p < 0.05$ ; \*\* indicates  $p < 0.01$  (two-tailed).

*Note:* Coefficients are shown with robust standard errors in parentheses. Results are robust to the use of standard errors clustered on the coalition government.

model presents results from a fully interactive specification where the coefficients on the interaction terms allow us to determine whether the effects of the covariates on portfolio allocation are significantly *different* across Europe and Africa. To ease interpretation, the ‘Europe’ and ‘Africa’ models show results when we split the sample by region. These results indicate the effect of the covariates in the respective regions.

The results from the first three models where we ignore the formateur status of the cabinet parties suggest that the positive relationship predicted between party size and portfolio allocation is significantly greater in Africa than in Europe. This is indicated by the positive and statistically significant coefficient on *Seatshare* × *Africa* in the combined model. Note that the coefficient on *Seatshare* is significantly less than one (perfect proportionality) in the Europe model and that the coefficient on the constant term is significantly greater than zero. This confirms the impression we had from Figure 1 that large parties in Europe tend to be undercompensated when it comes to portfolio allocation, while small parties tend to be overcompensated. In contrast, the coefficient on *Seatshare* is not significantly different from one in the Africa model and the coefficient on the constant term is not significantly different from zero. This suggests that parties in Africa

receive cabinet portfolios in direct proportion to their share of the government’s legislative seats. If one were to stop here, we would have to conclude that the pattern of portfolio allocation in Africa is much closer to the predictions of Gamson’s Law than the pattern of portfolio allocation in Europe.

As we note in our theoretical argument, though, it is important to take account of the formateur status of the cabinet parties. Almost all of the large parties in African coalition governments are formateur parties. As a result, it is likely that the strong positive relationship between a party’s share of the government’s legislative seats and portfolio allocation is being driven by large formateur parties. Indeed, our theoretical argument predicts that the positive relationship between party size and portfolio allocation should be the same or lower in Africa than in Europe, not greater. The results from the second set of models in Table 2 confirm this – the coefficient on *Seatshare*  $\times$  *Africa* is substantively small and statistically insignificant once we control for formateur status. This is exactly as predicted by the *Party Size Hypothesis*.

The results from the second set of models in Table 2 also show that the effect of formateur status on portfolio allocation is significantly different in Europe than it is in Africa. This is indicated by the statistically significant coefficient on *Formateur*  $\times$  *Africa* in the combined model. The coefficient on *Formateur* in the Europe model is negative and statistically significant, confirming our impression from Figure 1 that European formateur parties are disadvantaged when it comes to portfolio allocation. In contrast, the coefficient on *Formateur* is positive and statistically significant in the Africa model, indicating that African formateur parties enjoy a bonus in the portfolio allocation process. These effects are substantively large. Controlling for their size, formateur parties in Africa obtain a 13 [8.0-18.1] percentage point larger share of portfolios than a non-formateur party in Africa, and a 16 [10.9-21.4] percentage point larger share than a formateur party in Europe. 95% confidence intervals are shown in square brackets. These results are exactly as predicted by the *Formateur Hypothesis*.

Recall that non-formateur parties in Africa should always receive a lower share of portfolios than their counterparts in Europe, whereas formateur parties in Africa should always receive a higher share. This is exactly what we find. As we demonstrate in [Online Appendix B](#), the marginal effect of *Africa* for non-formateur parties,  $\beta_3 + \beta_4 \text{Seatshare}$ , is always negative across the observed range of *Seatshare* and is statistically significant ( $p < 0.05$ ) for 99.5% of the sample observations. Similarly, the marginal effect of *Africa* for formateur parties,  $\beta_3 + \beta_4 \text{Seatshare} + \beta_5$ , is always positive across the observed range of *Seatshare* and is statistically significant ( $p < 0.05$ ) for all of the sample observations.

### 3.2.2 Comparing within Africa: Presidential and Parliamentary Regimes

The pattern of partisan portfolio allocation should differ not only across Europe and Africa, but also across parliamentary and presidential democracies *within* Africa. To test the *Parliamentary Formateur Hypothesis* and the *Parliamentary Party Size Hypothesis*, we created some additional measures. *Parliamentary* is a dichotomous variable that equals 1 if the democracy is parliamentary, and 0 if it is presidential. We also created two interaction terms, *Formateur*  $\times$  *Parliamentary* and *Seatshare*  $\times$  *Parliamentary*, to test the conditionality of our hypotheses.

As before, we employ ordinary least squares with robust standard errors to test our hypotheses. The exact model specification is shown in Eq. (2) below:

$$\begin{aligned} \text{Portfolioshare} = & \gamma_0 + \gamma_1 \text{Seatshare} + \gamma_2 \text{Formateur} + \gamma_3 \text{Parliamentary} \\ & + \gamma_4 \text{Seatshare} \times \text{Parliamentary} + \gamma_5 \text{Formateur} \times \text{Parliamentary} + \epsilon. \end{aligned} \quad (2)$$

The marginal effect of *Formateur* on *Portfolioshare* is  $\gamma_2 + \gamma_5 \text{Parliamentary}$ . According to the *Parliamentary Formateur Hypothesis*, formateur parties in Africa's presidential democracies should receive a formateur bonus when it comes to portfolio allocation. As a result,  $\gamma_2$  should be positive. This formateur bonus should decline but not turn into a formateur disadvantage in Africa's parliamentary democracies. This means that  $\gamma_5$  should be negative and  $\gamma_2 + \gamma_5$  should be non-negative. According to the *Parliamentary Formateur Hypothesis*, it should also be the case that the formateur parties in Africa's parliamentary democracies will do better than the formateur parties in Europe's (parliamentary) democracies,  $\gamma_2 + \gamma_5 > \beta_2$ .

The marginal effect of *Seatshare* on *Portfolioshare* is  $\gamma_1 + \gamma_4 \text{Parliamentary}$ . According to the *Parliamentary Party Size Hypothesis*, larger cabinet parties, controlling for their formateur status, should always receive a greater share of ministerial portfolios than smaller cabinet parties irrespective of whether the government forms in a parliamentary or presidential democracy. As a result,  $\gamma_1$  and  $\gamma_1 + \gamma_4$  should both be positive. However, the positive effect of an increase in party size on portfolio allocation should be greater in parliamentary democracies. This is because formateur parties in presidential democracies do not need to reward coalition partners as generously as they would in parliamentary democracies due to the fact that they do not need to build a legislative majority to form a government. It follows that  $\gamma_4$  should be positive.

Due to the inherent symmetry of interactions (Berry et al., 2012), our claim that the effects of *Formateur* and *Seatshare* on *Portfolioshare* depend on whether a government forms in a parliamentary or pres-

idential democracy logically implies that the effect of forming a government in a parliamentary democracy as opposed to a presidential one on *Portfolioshare* depends on the values of *Formateur* and *Seatshare*. The marginal effect of *Parliamentary* is  $\gamma_3 + \gamma_4\textit{Seatshare} + \gamma_5\textit{Formateur}$ . According to our theory, non-formateur parties should always receive more portfolios in a parliamentary democracy than in a presidential one. As a result,  $\gamma_3 + \gamma_4\textit{Seatshare}$  should be positive for all values of *Seatshare*. In contrast, formateur parties should always receive fewer portfolios in a parliamentary democracy than in a presidential one. Hence,  $\gamma_3 + \gamma_4\textit{Seatshare} + \gamma_5$  should be negative for all values of *Seatshare*.

The results from three different models are shown in Table 3. The first ‘Africa’ model presents results from a fully interactive specification where the coefficients on the interaction terms allow us to determine whether the effects of the covariates on portfolio allocation are significantly *different* across parliamentary and presidential democracies in Africa. To help with interpretation, the ‘presidential’ and ‘parliamentary’ models show results when we split the African sample by democracy type. In effect, the results from these two models indicate the effect of the covariates in presidential and parliamentary democracies respectively.

The results in all three models provide support for the *Parliamentary Party Size Hypothesis*. As predicted, there is always a strong positive relationship between a party’s share of the government’s legislative seats and portfolio allocation. This is indicated by the positive and statistically significant coefficient on *Seatshare* in both the presidential and parliamentary models. As predicted, the coefficient on *Seatshare*  $\times$  *Parliamentary* is positive and almost reaches conventional levels of statistical significance,  $p < 0.13$  (two-tailed). It is also substantively large. While the share of legislative seats belonging to a non-formateur party translates into a share of ministerial portfolios at a ratio of 1 to 0.78 in presidential democracies, it translates into a share of ministerial portfolios at a ratio of 1 to 0.90 in parliamentary democracies. In effect, increases in cabinet party size lead to a much more favorable allocation of portfolios for non-formateur parties in Africa’s parliamentary democracies than in its presidential ones.

The results in all three models also provide strong support for the *Parliamentary Formateur Hypothesis*. As predicted, there is a substantively large formateur bonus in Africa’s presidential democracies. This is indicated by the positive and statistically significant coefficient on *Formateur* in the presidential model. Controlling for their size, formateur parties in Africa’s presidential democracies receive a 24 [14.2, 34.7] percentage point larger share of portfolios than non-formateur parties. As before, 95% confidence intervals are shown in square brackets. Importantly, the coefficient on *Formateur*  $\times$  *Parliamentary* is negative and

Table 3: The Effect of Presidential and Parliamentary Regime Type on Portfolio Allocation in Africa

Dependent Variable: Percentage of Ministerial Portfolios ( <i>Portfolioshare</i> )			
Regressor	Africa	Presidential	Parliamentary
Seatshare	0.77** (0.07)	0.77** (0.08)	0.90** (0.04)
Formateur	0.24** (0.05)	0.24** (0.05)	0.06* (0.02)
Parliamentary	0.02 (0.02)		
Seatshare $\times$ Parliamentary	0.13 (0.08)		
Formateur $\times$ Parliamentary	-0.19** (0.05)		
Constant	-0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)
Government Parties (N)	76	31	45
Coalition Governments	26	11	15
$R^2$	0.97	0.97	0.97

\* indicates  $p < 0.05$ ; \*\* indicates  $p < 0.01$  (two-tailed).

*Note:* Coefficients are shown with robust standard errors in parentheses. Results are robust to the use of standard errors clustered on the coalition government.

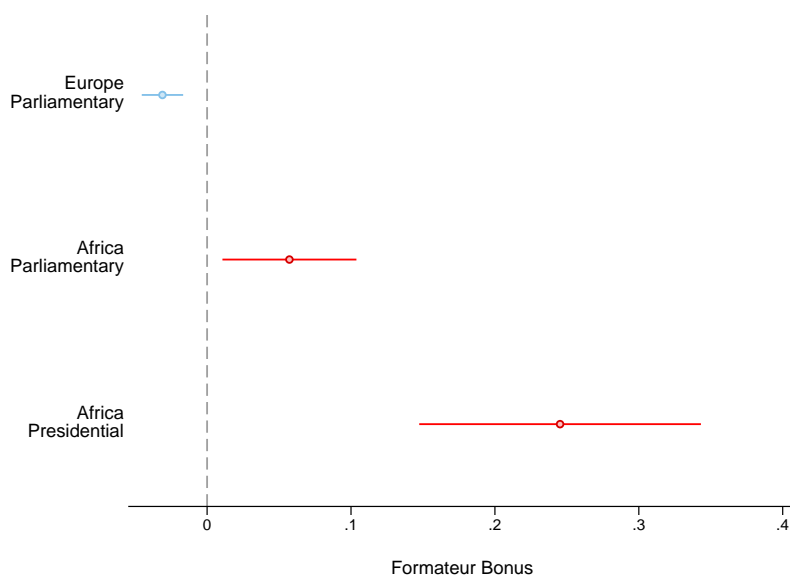
statistically significant. The magnitude of this coefficient indicates that formateur parties in Africa’s parliamentary democracies receive a 19 [7.8, 29.7] percentage point smaller share of portfolios than they do in its presidential ones. Substantively, these results are consistent with our claim that formateur parties in Africa’s parliamentary democracies have to be more generous to their coalition partners because of their need to build a legislative majority to enter office. Previous studies have found similar results with respect to patterns in portfolio allocation across presidential and parliamentary democracies in other regions of the world (Amorim Neto, 2006; Amorim Neto and Samuels, 2010; Golder and Thomas, 2014). Our analyses in Table 3 indicate that the results reported in these other studies are robust to the African context.

Interestingly, the coefficient on *Formateur* in the parliamentary model is positive and statistically significant, indicating that although formateur parties receive a smaller share of portfolios in Africa’s parliamentary democracies than in its presidential ones, they do not suffer the formateur disadvantage that we see in Europe’s parliamentary democracies. This result is consistent with our claim that all African formateurs, even those in Africa’s parliamentary democracies, will be advantaged in the portfolio allocation process compared with their European counterparts due to the relatively weak institutionalization of legislatures and

the dearth of stable, programmatic parties in Africa.

In Figure 3, we summarize our findings about the relative power of the formateur party across different contexts by plotting the marginal effects of *Formateur* in European (parliamentary) democracies, African parliamentary democracies, and African presidential democracies. These marginal effects indicate the size of the ‘bonus’ that formateur parties receive in these various systems. The circles indicate the marginal effects, while the horizontal lines on either side show the two-tailed 95% confidence intervals. Two results stand out. First, formateur parties get a larger share of portfolios in Africa’s presidential democracies than in its parliamentary ones. Second, formateur parties in Africa’s parliamentary democracies do better than formateur parties in Europe’s parliamentary democracies. The first result is due to the effect of the vote of no confidence on partisan portfolio allocation, while the second is due to the greater bargaining power of African formateurs, compared to European formateurs, in the government formation process.

Figure 3: Formateur Bonus in Europe and Africa



*Note:* The circles indicate the marginal effects of formateur status on portfolio share in European (parliamentary) democracies, African parliamentary democracies, and African presidential democracies. The estimated coefficients are drawn from the ‘Europe’ model that ‘includes formateur status’ in Table 2 and the ‘presidential’ and ‘parliamentary’ models in Table 3. The horizontal lines on either side of the point estimates are two-tailed 95% confidence intervals.

Finally, recall that non-formateur parties should receive more portfolios in a parliamentary democracy than in a presidential one, whereas formateur parties should receive fewer. This is largely what we find. As we demonstrate in [Online Appendix D](#), the marginal effect of *Parliamentary* for non-formateur parties,



$\gamma_3 + \gamma_4 \textit{Seatshare}$ , is always positive across the observed range of *Seatshare* and is statistically significant ( $p < 0.05$ ) when *Seatshare* is greater than 0.065, which is the case for more than 74% of the non-formateur parties. The marginal effect of *Parliamentary* for formateur parties,  $\gamma_3 + \gamma_4 \textit{Seatshare} + \gamma_5$ , is always negative, though not statistically significant, across the observed range of *Seatshare*.

### 3.3 Party, Ethnicity or Both?

Before summarizing our argument and evidence, we would like to consider an alternative approach to explaining portfolio allocation. In a recent article, Francois et al. (2015, 465), hereafter FRT, argue that “political power [cabinet portfolios] is allocated proportionally to population shares across ethnic groups” in Africa. This is done to ward off “revolutions from outsiders and coup threats from insiders” (465). While Arriola (2009) argues that African leaders can increase the *size* of the cabinet to enlarge their ethnic patronage coalition and so ward off coup threats, FRT (2015) focus on how the *distribution* of cabinet portfolios across ethnic groups can help African leaders retain power.<sup>17</sup> Whereas our theoretical framework focuses on the standard legislative bargaining incentives that have been central to the government formation literature to date, FRT (2015, 467) present a model that “revolves around nonlegislative incentives.”

The government formation literature, as we have seen, typically focuses on the political parties that make it into the cabinet. However, Rainer and Trebbi (2011), who describe the underlying data in FRT (2015), argue that it is more appropriate in Africa to focus on the ethnic groups that make it into the cabinet. This is because “African politics [...] can be parceled into ethnic issues and demands” (10) and because African parties “cutting across ethnic lines [...] are rare” (11). In effect, they claim that African politics is about ethnicity and that African party systems are simply a reflection of a country’s underlying ethnic composition.<sup>18</sup> If this is true, one might wonder whether our results with respect to proportional *partisan* portfolio allocation in Africa are simply capturing a more fundamental pattern of proportional *ethnic group* portfolio allocation. As we now demonstrate, this is not the case.

While a useful shorthand in some cases, African politics cannot be reduced to ethnicity. Ethnicity is not politically salient across Africa. As constructivist theories of identity formation make clear, whether

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<sup>17</sup>Arriola (2009) shows that larger cabinets are associated with a lower risk of coups. However, he cannot demonstrate that this is due to the inclusion of more ethnic groups in the cabinet as his data does not include information on a government’s ethnic makeup. FRT (2015), and their underlying data paper (Rainer and Trebbi, 2011), provide the first dataset to contain information on the ethnicity of ministers in Africa.

<sup>18</sup>FRT’s (2015) decision to focus on ethnic groups instead of parties makes sense given their specific goal of examining how power is distributed across both democracies and dictatorships in Africa. This is because many African dictatorships are single-party regimes and others have no parties at all (Gandhi, 2008).

attributes such as ethnicity are politicized or not is context dependent (Laitin, 1992; Chandra, 2004; Chandra and Boulet, 2012).<sup>19</sup> As an example, Posner (2004b) shows how the size and geographic dispersion of ethnic groups interact with electoral institutions to explain why the ethnic distinction between Chewas and Tumbukas is politicized in Malawi but not in Zambia. Empirically, there is considerable variation in the degree of ethnic voting in Africa, both across countries and within countries over time (Ferree and Horowitz, 2010; Basedau and Stroh, 2012; Harding, 2015). In addition to ethnicity, scholars have shown that African politics is shaped by the urban-rural cleavage (Nugent, 1999), economic factors (Kimenyi and Romero, 2008; Posner, 2005), political competition (Eifert et al., 2010), and incumbent performance (Lindberg and Morrison, 2005; Carlson, 2015) among other things.

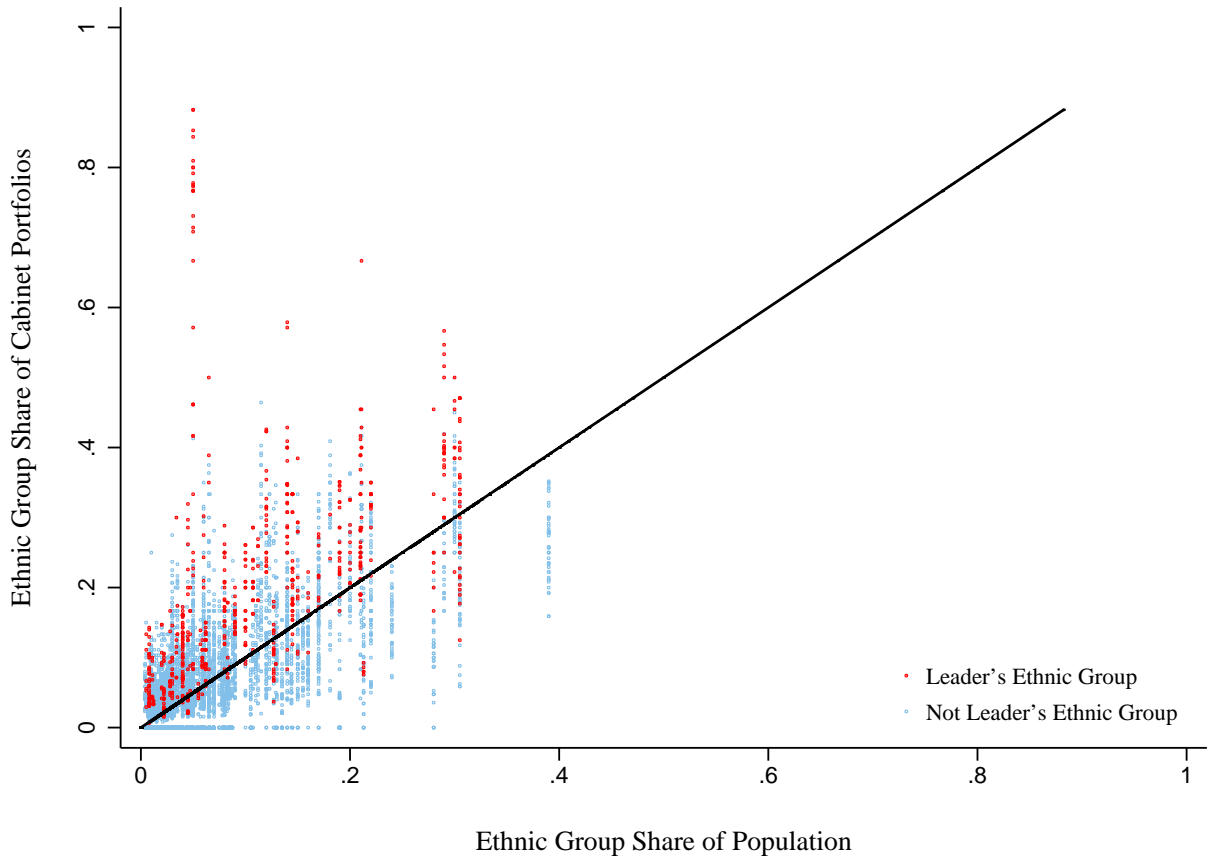
The extent to which African parties are ‘ethnic’ also shows considerable variation across countries (Elischer, 2013). In a study of 41 parties in 13 countries, Cheeseman and Ford (2007) show that only 8 can be considered ‘ethnic’ under Horowitz’s (1985) seminal definition of an ethnic party. Criticizing the literature’s excessive focus on parties in Anglophone Africa, particularly those in Ghana and Zambia, Basedau and Stroh (2012) examine parties in four Francophone countries. They find that “‘ethnic parties’ in the strict sense are virtually absent” (5). They also find no evidence of ‘ethnic congress parties’ — parties that are based on a coalition, alliance, or federation of ethnic political parties or machines (Gunther and Diamond, 2003, 184). The existence of ‘dominant parties’ in many ethnically heterogeneous African countries also runs counter to the idea that African parties are always ethnic. This is because these parties win a far greater share of the votes than the share of the population comprised by even the largest ethnic group.

As this discussion indicates, there is little reason to believe that the pattern of *partisan* portfolio allocation that we find in our sample of Anglophone, Francophone, and Lusophone African democracies simply reflects an underlying pattern of *ethnic group* portfolio allocation. Further evidence for this comes when we look at the actual data in FRT (2015). In Figure 4, we use FRT’s data to plot an ethnic group’s annual share of cabinet portfolios against its share of the total population in the 15 countries (democracies and dictatorships) used in their study: Benin, Cameroon, Côte d’Ivoire, Democratic Republic of Congo, Gabon, Ghana, Guinea, Liberia, Nigeria, Republic of Congo, Sierra Leone, Tanzania, Togo, Kenya, and Uganda. The cir-

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<sup>19</sup>Constructivist theories indicate not only that contextual factors help determine whether ethnicity is politicized, but also which ethnic groups and which ethnic attributes are politicized across time (Laitin and Posner, 2001). It is important therefore not simply to enumerate the number of different ethnic groups in a country as FRT (2015) do, but to enumerate *politically-relevant* ethnic groups over time (Posner, 2004a). Since ethnic groups can be identified at different levels of aggregation (Mozaffar et al., 2003), it is also incumbent on scholars wishing to link ethnicity to political outcomes to theorize about the appropriate level of aggregation or to show that their results are robust to different levels of aggregation.

Figure 4: Ethnic Group Size and Portfolio Allocation in Africa, 1960-2004



*Note:* The circles indicate the annual share of cabinet portfolios going to an ethnic group as well as the ethnic group's share of the population. The circles are red if the ethnic group matches that of the country's leader, and blue otherwise. There are 11,029 blue circles and 720 red circles, for a total of 11,749 observations. Data are for fifteen Africa countries (democracies and dictatorships) from 1960 or independence to 2004. The upward sloping black line indicates the scenario where cabinet portfolios are allocated to ethnic groups in perfect proportion to their population size.

cles are red if the ethnic group matches that of the country's leader, and blue otherwise.<sup>20</sup> The black line indicates the scenario where cabinet portfolios are allocated to ethnic groups in perfect proportion to their population size.<sup>21</sup> FRT (2015, 472) argue that the data generally follow the line of perfect proportionality, indicating that "cabinet allocations tend to closely match population shares with cabinet post shares." They also argue that there is a positive premium for the leader's ethnic group that is "comparable to formateur

<sup>20</sup>There is a total of 11,749 observations (11,029 blue circles and 720 red circles), 5,263 of which are for ethnic groups that receive no ministerial portfolios. The reason why there are so many observations despite the sample including only fifteen countries is that FRT (2015) calculate the share of portfolios controlled by an ethnic group on an *annual* basis and not on a *government* basis. Indeed, FRT (2015) never provide a coding rule for when a new government forms. This means that the same 'cabinet' can repeatedly appear in the dataset multiple times. With no way to identify individual governments, it becomes impossible to take account of the fact that cabinet posts are not distributed independently within governments.

<sup>21</sup>Figure 4 is equivalent to Figure 2 in FRT (2015, 475), except that it also includes information on the ethnic groups associated with country leaders (red circles) and it extends both axes beyond 0.5.

advantages in [Europe's] parliamentary democracies" (467).<sup>22</sup>

While we also find that cabinet portfolios are allocated in a roughly proportional manner, it is important to recognize that these proportional relationships are quite different. The proportional relationship in FRT (2015) is with respect to ethnic group size in the population. Critically, our proportional relationship is *not* with respect to a party's legislative size, which reflects their support in the population, but with respect to the share of seats that each cabinet party contributes to the share of seats controlled by the government. To illustrate, suppose we have a coalition government comprising party *A* with 30% of the legislative seats and party *B* with 20% of the legislative seats. Proportional partisan portfolio allocation means allocating 60% of the portfolios to party *A* and 40% to party *B*. If African parties rarely cross ethnic lines as Rainer and Trebbi (2011) claim, then it is difficult to see how this pattern of partisan portfolio allocation would automatically flow from the proportional allocation of portfolios across ethnic groups in the population. And if African parties do cross ethnic lines, then achieving a proportional allocation of portfolios across ethnic groups does not necessarily require the proportional allocation of portfolios across cabinet parties.

Ultimately, we believe that the proportionality relationship that we demonstrate is conceptually and empirically distinct from the one in FRT (2015). Taken together, the two sets of results suggest that African leaders allocate cabinet portfolios in a roughly proportional manner across both ethnic groups *and* cabinet parties (not legislative parties). That they might do this should not be surprising given that they are likely to want to build support both inside and outside of the legislature. There is no reason to believe that leaders wish to achieve proportionality along only one dimension. It is documented, for example, that Italian governments allocated ministerial portfolios in the early post-war period in such a way that they achieved proportionality across both parties and geographic areas (Golden, 2003, 197).

There are at least two reasons to believe that the empirical evidence is slightly more consistent with the party portfolio allocation story than the ethnic group portfolio allocation story. A close look at Figure 4 reveals tall 'vertical columns' of observations. These columns occur because the share of portfolios that an ethnic group receives varies considerably over time even though its size remains constant. This suggests that the extent to which portfolios are allocated in proportion to ethnic group size varies over time. Our data reveal no such temporal variation in the extent to which portfolios are allocated in proportion to cabinet party

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<sup>22</sup> Although there is a positive premium for the leader's ethnic group in the FRT data, it is incorrect to say that it is equivalent to formateur advantages in Europe's parliamentary democracies. This is because, as shown in Figures 1 and 3, as well as Table 3, there tends to be a formateur *disadvantage* in Europe's parliamentary democracies (Warwick and Druckman, 2006; Laver et al., 2011; Golder and Thomas, 2014).

size. More significant, though, is the fact that the ethnic group portfolio allocation story cannot explain why we observe such big differences across parliamentary and presidential regimes in Africa. Recall that, in line with our theoretical expectations, we found a larger formateur bonus in Africa's presidential democracies than in its parliamentary ones. This difference had to do with the existence of the vote of no confidence in parliamentary democracies. The fact that the theoretical model proposed by FRT (2015, 467) "revolves around nonlegislative incentives" means that it cannot account for this difference, a difference that has been observed in other regions of the world.

## 4 Conclusion

Although the literature on government formation is one of the largest in political science, there is almost no research on it in the African context. [Arriola \(2009, 1349\)](#) writes that "little is actually known about the determinants of cabinets – one of the few observable representations of the coalitions built by African leaders." [Kapa and Shale \(2014, 94\)](#) claim that "[w]hereas political party coalitions and alliances have been widely discussed in Western Europe and other regions [. . .], little research has been done into the value of these phenomena and why they form in Africa." And [Kadima and Owuor \(2014, 174\)](#) state that the "study of pre-electoral alliances and coalition governments in Africa is in its infancy." This dearth of studies may be due to a lack of available data on African governments, the perception that parties and legislatures do not matter in Africa, or to the assumption that coalition cabinets in Africa are rare, and that when they do form, they do not matter as much as they do elsewhere in the world. As we indicate, though, coalition governments are, in fact, quite common in Africa — they account for almost half of the democratic governments that we found in Africa from 1990 through 2014. In many cases, these coalition governments have drawn the political attention of observers both within and outside of Africa.

In this paper, we seek to contribute to the nascent literature on African coalition governments by looking at whether our existing theory about the partisan allocation of portfolios can be successfully applied to African democracies. In line with Gamson's Law, we find that parties in Africa receive ministerial portfolios in rough proportion to their share of the government's legislative seats. In fact, the support for Gamson's Law is slightly stronger in Africa than it is in Europe. The claim that the partisan identity of ministers does not matter in Africa is hard to reconcile with this pattern of portfolio allocation.

As expected, formateur parties in Africa do better when it comes to portfolio allocation than they do

in Europe. This difference can be traced to the fact that weakly-institutionalized legislatures and unstable, particularistic parties provide African formateurs with more bargaining leverage than their European counterparts. It also has to do with the fact that there are more presidential democracies in Africa than in Europe. Leaders in parliamentary democracies have to be more generous to their coalition partners than leaders in presidential democracies due to the fact that they need to build a legislative majority in order to enter, and stay in, office. As predicted, we also find that the bonus enjoyed by formateur parties is greater in Africa's presidential democracies than in its parliamentary ones.

Overall, we find differences in the patterns of partisan portfolio allocation between Africa and Europe. However, these differences are exactly what theory predicts we should find given the institutional and political context of government formation processes in African democracies. Our results indicate that existing theories of portfolio allocation, developed and tested in other regions of the world, apply equally well to Africa. They also suggest that scholars of African politics potentially have much to gain by paying more attention to the government formation process, and executive-legislative relations more broadly. Over time, as more data on African governments is collected and examined, scholars will eventually have enough cases, with enough variation, to explore how differences in formal rules and procedures affect executive-legislative relations. Scholars of Latin American governments, for example, take account of differences in presidential authority to help explain variation in government formation patterns ([Alemán and Tsebelis, 2011](#); [Martinez-Gallardo, 2012](#)). Scholars of African governments could profitably follow this same line of analysis. To do so, they will need to know more not just about African presidential and prime ministerial powers, but also more about the legislative rules and procedures governing executive-legislative relations.

Scholars in other regions of the world have built a large repository of theoretical and empirical knowledge linking aspects of the government formation process to a wide variety of outcomes, such as the economic size of governments ([Hallerberg, 2004](#); [Hallerberg and Marier, 2004](#); [Bawn and Rosenbluth, 2006](#); [Persson et al., 2007](#)), government stability ([Martinez-Gallardo, 2012](#); [Warwick, 1994](#)), and voter representation and accountability ([Powell, 2000](#); [Golder and Stramski, 2010](#)). If existing theories of portfolio allocation can be successfully applied to Africa, as we have demonstrated, then maybe existing theories in these related areas could illuminate other important aspects of African politics as well.

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## Online Appendix A: List of Coalition Governments

Table 4: 28 African Coalition Governments with Complete Partisan Portfolio Data

Country	Cabinet Code	Coalition Begin Date	Coalition End Date	Parties
1. Burundi	1	August 2005	March 2006	CNDD-FDD, UPRONA, MRC, FRODEBU
	2	November 2007	July 2010	CNDD-FDD, FRODEBU, UPRONA
	3	August 2010	June 2015	CNDD-FDD, FRODEBU-N, UPRONA
2. Ghana	4	January 2001	December 2004	NPP, CPP
3. Guinea-Bissau	5	November 2005*	March 2007	PRS, PUSD, PAIGC, PCD, UE
	6	April 2007	July 2008	PAIGC, PUSD, PRS
4. Kenya	7	January 2003	June 2004	DP, FORD-K, LDP, NPK
	8	June 2004	November 2005	FORD-P, KANU, NARC
	9	January 2008	April 2008	ODM-K, PNU
	10	April 2008	March 2013	ODM-K, ODM, PNU
5. Lesotho	11	June 2012	June 2014	BNP, LCD, ABC
6. Malawi	12	September 1994	June 1996	UDF, AFORD
	13	June 2004	February 2005	AFORD, RP, UDF
	14	June 2014	—	DPP, UDF
7. Mauritius	15	September 1990	September 1991	MSM, MMM, OPR, MLP
	16	September 1991	February 1995	MSM, MMM, MTD, OPR
	17	February 1995	December 1995	MSM, RMM, PMSD, MTD, OPR
	18	December 1995	July 1997	MLP, MMM
	19	May 2010	December 2014	PMSD, MLP, MR, MSM
	20	December 2014	—	MSM, PMSD, ML
8. São Tomé e Príncipe	21	January 1996	September 1996	MLSTP-PSD, ADI
	22	November 1996	November 1998	MLSTP-PSD, PCD
	23	April 2002*	September 2002	MLSTP-PSD, MDFM-PCD, UK
	24	October 2002	August 2003	MLSTP-PSD, MDFM-PCD, UK
9. South Africa	25	May 1994	June 1996	ANC, IFP, NP
	26	June 1996	June 1999	IFP, ANC
	27	June 1999	April 2004	IFP, ANC
	28	April 2004	September 2008	ANC, AZAPO, NNP

*Note:* *Coalition Begin Date* refers to the month on which the cabinet was announced; if the date could not be confirmed, it is the date on which the cabinet was sworn in. \* indicates that the formateur was nonpartisan; this coalition government does not appear in our statistical analyses. — indicates that the coalition government had not ended by December 2016. The full party names associated with the party acronyms shown in Table 4 can be found in the codebook that is included with our replication materials.

## Online Appendix B: Marginal Effect of *Africa* on *Portfolioshare*

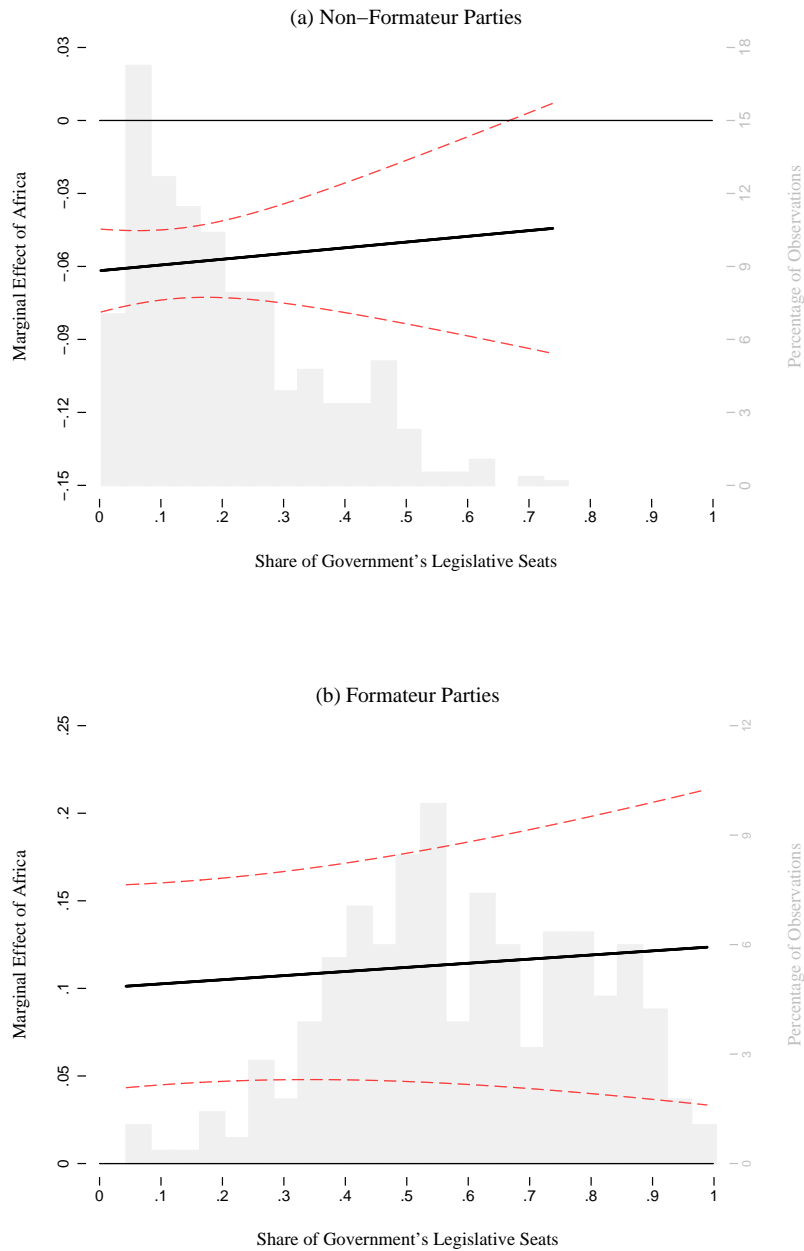
The results in Table 2 provided strong support for our *Party Size Hypothesis* and our *Formateur Hypothesis*. To fully evaluate the conditional theory underlying these hypotheses, though, it is necessary to recognize the inherent symmetry of interaction models (Berry et al., 2012). This means that we also need to evaluate the marginal effect of *Africa* on *Portfolioshare*. In the main text, we reported that this marginal effect was exactly as predicted, providing full support for our conditional theory. However, we did not go into too much detail and directed the interested reader to Online Appendix B for a more in depth analysis.

The marginal effect of *Africa* on *Portfolioshare* is  $\beta_3 + \beta_4 \textit{Seatshare} + \beta_5 \textit{Formateur}$ . According to our theory, non-formateur parties in Africa should always receive a lower share of portfolios than their counterparts in Europe, whereas formateur parties in Africa should always receive a higher share. In Figure 5, we plot the marginal effects of *Africa* for non-formateur parties (top) and for formateur parties (bottom) across the observed range of *Seatshare* for each type of cabinet party using the results from the ‘combined’ model that ‘includes formateur status’ in Table 2. The observed range of *Seatshare* for non-formateur parties is 0.003 to 0.728. For formateur parties, it is 0.043 to 0.990. The dashed red lines indicate two-tailed 95% confidence intervals. To help readers better assess the evidence in these marginal effect plots, we overlay a histogram indicating the percentage of cabinet parties at the different values of *Seatshare*.

As predicted, panel (a) shows that the marginal effect of *Africa* is always negative for non-formateur parties. This negative effect is statistically significant ( $p < 0.05$ , two-tailed) so long as *Seatshare* is less than 0.668. Only three non-formateur parties out of 568 have a seatshare larger than this. As indicated in the main text, this means that the negative effect of *Africa* for non-formateur parties is statistically significant for 99.5% of the sample observations.

As predicted, panel (b) shows that the marginal effect of *Africa* is always positive for formateur parties. This positive effect is statistically significant ( $p < 0.05$ , two-tailed) over the entire observed range of *Seatshare*. As indicated in the main text, this means that the positive effect of *Africa* for formateur parties is statistically significant for all of the sample observations.

Figure 5: The Marginal Effect of *Africa* on *PortfolioShare* for Non-Formateur and Formateur Parties



*Note:* The panels in Figure 5 are based on the results in the ‘combined’ model that ‘includes formateur status’ in Table 2. The thick solid black lines show the marginal effects of *Africa* on *PortfolioShare* for non-formateur parties (top panel) and formateur parties (bottom panel) across the observed range of *Seatshare*. The observed range of *Seatshare* for non-formateur parties is 0.003 to 0.728. For formateur parties, it is 0.043 to 0.990. The dashed red lines represent two-tailed 95% confidence intervals. The black vertical axis on the left pertains to the magnitude of the marginal effects, while the light grey vertical axis on the right pertains to the histograms and indicates the percentage of non-formateur/formateur cabinet parties in the sample at different values of *Seatshare*.

## Online Appendix C: Partisan Portfolio Allocation in Africa, Latin America, and Europe

In the main text we compared partisan portfolio allocation in Africa with partisan portfolio allocation in Europe. In footnote 8, we explained that we used this comparison for two reasons. The first is that the vast majority of the theoretical and empirical work on government formation and partisan portfolio allocation has historically focused on Europe. The second is that the institutional contexts in Europe and Africa are sufficiently distinct to allow us to derive clear theoretical predictions about how partisan portfolio allocation should differ across these two regions. We finished footnote 8 by saying that Online Appendix C provided a comparison of partisan portfolio allocation in Africa, Latin America, and Europe. We also claimed that the results from this additional analysis provided further support for our underlying theoretical framework. We now provide the basis for this particular claim.

Our Latin American data cover 215 cabinet parties in 74 coalition governments in 10 countries (Almeida, 2003). All of the Latin American countries in our sample have presidential regimes. A brief overview of the data is provided in Table 5.

Table 5: Latin American Coalition Governments

Country	Years	Number of Cabinets
Argentina	1999 - 2002	4
Bolivia	1982 - 2001	12
Brazil	1984 - 2003	12
Chile	1970-72, 1990-2000	5
Colombia	1982 - 1998	9
Costa Rica	1958 - 1966	2
Ecuador	1979 - 1998	10
Peru	1980 - 2002	6
Uruguay	1985 - 2000	6
Venezuela	1958 - 1999	8
Total		74

*Note:* Data were kindly provided by Almeida (2003).

The results from five different models are shown in Table 6. The first two models present results from Europe (parliamentary) and Latin America (presidential), while the last three models present results from Africa (pooled, parliamentary, and presidential). Our focus is on the magnitude and statistical significance



of the coefficient on *Formateur*.

Table 6: The Effect of Party Size and Formateur Status on Portfolio Allocation in Latin America and Africa

Dependent Variable: Percentage of Ministerial Portfolios ( <i>Portfolioshare</i> )					
Regressor	Europe Parliamentary	Latin America Presidential	Pooled	Africa Parliamentary	Presidential
Seatshare	0.83** (0.01)	0.54** (0.05)	0.86** (0.04)	0.90** (0.04)	0.77** (0.08)
Formateur	-0.03** (0.01)	0.18** (0.03)	0.13** (0.03)	0.06* (0.02)	0.24** (0.05)
Constant	0.07** (0.004)	0.09** (0.01)	0.004 (0.01)	0.01 (0.01)	-0.01 (0.01)
Government Parties (N)	777	215	76	45	31
Coalition Governments	259	74	26	15	11
$R^2$	0.90	0.75	0.96	0.97	0.97

\* indicates  $p < 0.05$ ; \*\* indicates  $p < 0.01$  (two-tailed).

*Note:* Coefficients are shown with robust standard errors in parentheses. The ‘Europe’ model (1) and the ‘Africa’ models (3-5) show the same results as reported in Tables 2 and 3.

According to our theoretical framework, the formateur bonus should be larger when the vote of no confidence is absent. As a result, we would expect the formateur bonus to be largest in Latin America (where all the regimes are presidential), smallest in Europe (where all the regimes are parliamentary), and possibly somewhere in between in Africa (where there is a mix of parliamentary and presidential regimes). This is exactly what we find. As the coefficients on *Formateur* in the first three models of Table 6 indicate, the formateur bonus is 0.18 [0.13, 0.23] in Latin America, 0.13 [0.08, 0.18] in Africa, and -0.03 [-0.02, -0.05] in Europe. 95% confidence intervals are shown in square brackets.

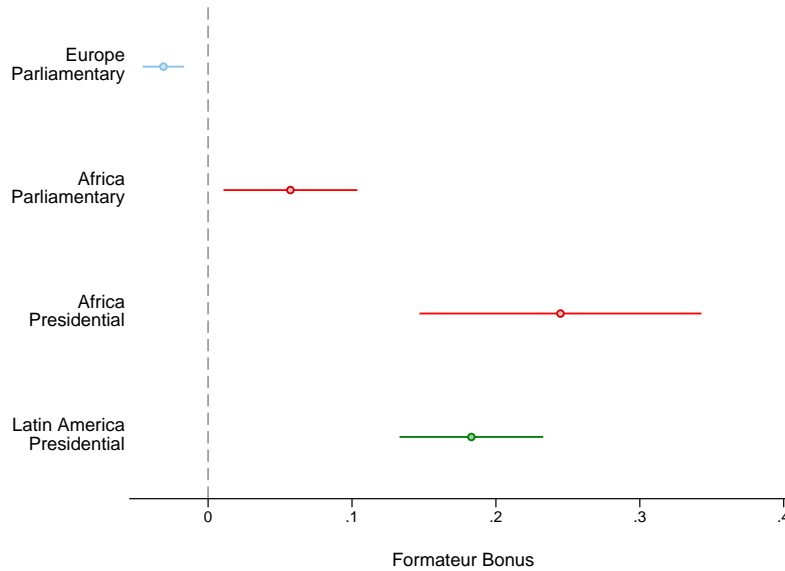
According to our theoretical framework, the formateur bonus in Africa’s parliamentary democracies should be smaller than the formateur bonus in Latin America’s presidential democracies, but it should be larger than the formateur bonus in Europe’s parliamentary democracies. The first prediction has to do with the presence of the vote of no confidence in Africa’s parliamentary democracies but its absence in Latin America’s presidential democracies, while the second prediction has to do with the fact that legislatures are less institutionalized and parties are more unstable and particularistic in Africa compared to Europe. Again, this is exactly what we find. The formateur bonus is 0.18 [0.13, 0.23] in Latin America’s presidential democracies, 0.06 [0.01, 0.11] in Africa’s parliamentary democracies, and -0.03 [-0.02, -0.05] in Europe’s

parliamentary democracies.

Our current theoretical framework does not allow us to make a clear prediction as to whether the formateur bonus will be larger in Africa’s presidential regimes or in Latin America’s presidential regimes. The vote of no confidence is absent in both sets of regimes. Empirical evidence suggests that parties are unstable and particularistic in both regions (Ferree and Horowitz, 2010; Goeke and Hartmann, 2011; Young, 2014; Elischer, 2013; Kellam, 2015). Similarly, empirical evidence indicates that legislatures in both Africa and Latin America are less institutionalized than their European counterparts (Martinez-Gallardo, 2012; Alemán and Tsebelis, 2011; Fish and Kroenig, 2009). With this in mind, the results in Table 6 indicate that the formateur bonus is larger, though not to a statistically significant extent, in Africa’s presidential democracies than in Latin America’s presidential democracies. Specifically, the formateur bonus is 0.24 [0.14, 0.35] in Africa’s presidential regimes and 0.18 [0.13, 0.23] in Latin America’s presidential regimes.

In Figure 6, we graphically summarize the information about the formateur bonus across different regime types in Africa, Europe, and Latin America.

Figure 6: Formateur Bonus in Europe, Africa, and Latin America



*Note:* The circles indicate the marginal effects of formateur status on portfolio share in European (parliamentary) democracies, African parliamentary democracies, African presidential democracies, and Latin American (presidential) democracies. The estimated coefficients are drawn from the models shown in Table 6. The horizontal lines on either side of the point estimates are two-tailed 95% confidence intervals.

## Online Appendix D: Marginal Effect of *Parliamentary* on *Portfoliashare*

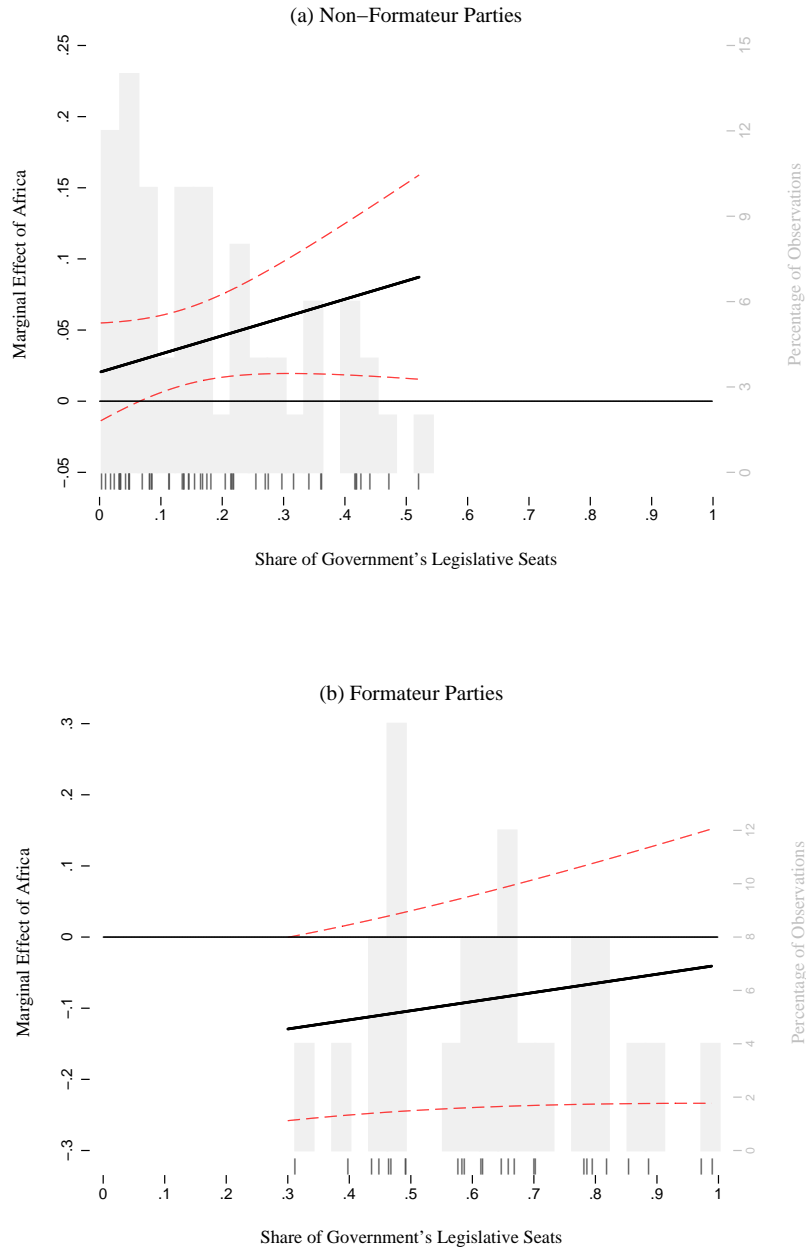
The results in Table 3 provided strong support for our *Parliamentary Party Size Hypothesis* and our *Parliamentary Formateur Hypothesis*. To fully evaluate the conditional theory underlying these hypotheses, though, it is necessary to recognize the inherent symmetry of interaction models (Berry et al., 2012). This means that we also need to evaluate the marginal effect of *Parliamentary* on *Portfoliashare*. In the main text, we reported that this marginal effect was largely in line with our predictions. However, we did not go into too much detail and directed the interested reader to Online Appendix D for a more in depth analysis.

The marginal effect of *Parliamentary* is  $\gamma_3 + \gamma_4 \textit{Seatshare} + \gamma_5 \textit{Formateur}$ . According to our theory, non-formateur parties should always receive more portfolios in a parliamentary democracy than in a presidential one, whereas formateur parties should always receive fewer. In Figure 7, we plot the marginal effects of *Parliamentary* for non-formateur parties (top) and for formateur parties (bottom) across the observed range of *Seatshare* for each type of cabinet party using the results from the ‘Africa’ model in Table 3. The observed range of *Seatshare* for non-formateur parties is 0.003 to 0.520. For formateur parties, it is 0.312 to 0.990. The dashed red lines indicate two-tailed 95% confidence intervals. To help readers better assess the evidence in these marginal effect plots, we overlay a histogram indicating the percentage of cabinet parties at the different values of *Seatshare*. Below the histogram, we use a rugplot to show the individual values of *Seatshare* for the 50 non-formateur parties and the 26 formateur parties.

As predicted, panel (a) shows that the marginal effect of *Parliamentary* is always positive for non-formateur parties. This positive effect is statistically significant ( $p < 0.05$ , two-tailed) so long as *Seatshare* is greater than 0.065. As indicated in the main text, this means that the positive effect of *Parliamentary* for non-formateur parties is statistically significant for 74% of the sample observations.

As predicted, panel (b) shows that the marginal effect of *Parliamentary* is always negative for formateur parties. The marginal effect of *Parliamentary* for formateur parties is statistically significant when *Seatshare* is less than 0.303, but there are no formateur parties whose value for *Seatshare* is this small. In effect, the marginal effect of *Parliamentary* for formateur parties always has the correct sign; that this effect is not statistically significant is not that surprising given the small number of observations.

Figure 7: The Marginal Effect of *Parliamentary* on *Portfolioshare* for Non-Formateur and Formateur Parties



*Note:* The panels in Figure 7 are based on the results in the 'Africa' model in Table 3. The thick solid black lines show the marginal effects of *Parliamentary* on *Portfolioshare* for non-formateur parties (top panel) and formateur parties (bottom panel) across the observed range of *Seatshare*. The observed range of *Seatshare* for non-formateur parties is 0.003 to 0.520. For formateur parties, it is 0.312 to 0.990. The dashed red lines represent two-tailed 95% confidence intervals. The black vertical axis on the left pertains to the magnitude of the marginal effects, while the light grey vertical axis on the right pertains to the histograms and indicates the percentage of cabinet parties in the sample at different values of *Seatshare*. Below the histograms are rugplots showing the individual *Seatshare* values for the non-formateur and formateur parties.