# Sharing a Shrinking Pie: Public Spending and Political Coalitions in the Global Financial Periphery

Jacob Winter, University of Toronto

February 20, 2026

How do politicians hold together coalitions when they are financially constrained? A vast literature on distributive politics records conflicting findings on whether leaders use resources to reward supporters or make inroads with the unconvinced. I suggest that politicians build coalitions across identities by using varying their sectoral and geographic strategies. The type of investment depends on whether leaders are more vulnerable to losing their candidates or voters. Leaders build infrastructure in places where they need to keep local elites onside and spend on public employment in places where they need to keep voters loyal to the political centre. however, the ability to fund these transfers changes with government's ability to take on additional debt. As borrowing costs rise, governments protect spending among key elites. I find empirical support for this theory on constituency-level infrastructure and wage budgets in Zambia and Kenya. This study highlights the importance of contextualizing national coalition building within the global political economy.

# 1 Introduction

> [Some say that the president] is like a step-father who says "I will give my biological children whatever they want, but this step-son, it is just to be given leftovers." Which is not true…we MPs are all one, serving the same government…No, I can't complain I'm a stepson.
>
> - *Hon. Dr. Aaron Mwanza, Opposition MP*[1]

Dr. Mwanza had good reason to claim that the president wasn't playing favourites. Despite his status as an opposition member of parliament (MP), he had just signed an agreement to build new police housing and headquarters in his constituency. But this sunny sentiment wasn't shared by his peers. Mwanza's colleague Mulenga Fube told me that his repeated demands for road repairs fell on deaf ears, and that newly recruited teachers in his constituency were "openly partisan" government supporters. Why were these two opposition MPs treated so differently? Moreover, why would Zambia's government– under massive pressure to finalize its debt restructuring– sign off on a deal for a big capital project in an opposition constituency?

Answering this question requires developing an understanding of how executives use different types of spending strategically to maintain political coalitions. When rising debt costs threaten the distribution of spoils, leaders direct attributable capital spending to strong MPs while using wage spending to solidify loyalty among their voters.

This dynamic occurs within two large contextual shifts in the political economy of developing countries. First, although democracy's progress has been uneven, competitive elections continue to be a major feature of many countries' politics, forcing leaders to craft coalitions to stay in power [@boone2024; @weghorst2023 ;Arriola (2009)]. Executives win elections by balancing resource allocation across sectors and regions. Second, access to international financial markets has dramatically shifted the menu of options available to developing countries Manger et al. (2025). This "age of choice" (Greenhill, Prizzon, and Rogerson 2016) enables discretionary spending, but causes a painful squeeze when global markets dry up. When borrowing costs rise, governments face a tighter budget constraint and real political threats. This forces them to act strategically, using spending to prioritize political survival over ideological or in-group provision.

To explain this, I consider the degree to which government spending is locally attributed and politicians' strength: their ability to amass votes apart from their party label. Public good provision is a major boost to MPs' popularity, decreasing the the resources they have to invest into re-election. By contrast, public sector employment is more likely to be attributed to the political center, the president or party. MPs vary in the degree of bargaining power they hold against the centre, depending on whether voters are more loyal to local or national elites. Some MPs can credibly threaten to run for other parties or as independents. By contrast, other MPs will not be re-elected without being nominated and supported by their party, limiting their

[1] Interview, Lusaka 2025

ability to demand from the centre (Choi 2018). Leaders use infrastructure to win elite support, preventing defection and wooing MPs from rival parties. Conversely, where citizens are faithful to the party, governments will instead spend on public employment which directly increases support for the executive.

I test this theory with new data on subnational budgets for infrastructure and emoluments in Zambia (2006-2020) and Kenya (2013-2021). I find strong support for my argument: when borrowing costs rise, infrastructure spending shifts to places with strong MPs and salary spending to loyal voters. These results are robust to a variety of alternative measures of the cost of debt. These findings are important for understanding the implications of financial structural dependence on domestic policy priorities. Zambia's history of competitive elections and embrace of external debt make it an ideal case for testing this argument, while Kenya's long history of ethnic mobilization provides a critical case from which to assess generalizability.

This paper contributes to understanding the puzzling heterogeneity in studies of distributive politics, showing how pork and patronage work are attributed in different places. I also contextualize domestic political settlements within the international financial system, showing how shifts in policy choices in the Global North constrain the ability of developing countries to realize their political agendas. Finally, I contribute new data on Zambian subnational spending across different types of goods, a valuable resource to test further hypotheses.

The remainder of this paper is organized as follows. The next section provides a review of the literature on discretionary spending in developing countries. The third develops a theory of strategic sectoral budgeting and presents hypotheses. Section four describes the context of debt and democracy in Zambia and Kenya. Section five outlines data and empirical approach. Section six presents results from quantitative tests of these hypotheses. I conclude with a discussion of the implications of these findings for scholars, citizens, and policymakers.

## 2 Background: Debt and Distributive Politics in the Developing World

Politicians in the developing world win elections by convincing voters that they can *deliver development* (Bleck and van de Walle 2013). Consequently, the questions of distributive politics-who gets what, when, and why (Lasswell 1936) - are at the centre of electoral competition. Unlike in developed countries, where distributive conflicts are assumed to be rooted in class cleavages (Lipset and Rokkan 1967; Meltzer and Richard 1981), political movements in the developing world evolved around national goals like independence and multiparty democracy. Without cross-cutting material cleavages, politicians mobilize voters on geographic terms (see Bates 1981; Boone 2024; Posner 2005; Hallink and Siachiwena 2023).

In many cases, ethnic ties serve as a shortcut for coordinating regional interests. However, ethnic pleas are rarely sufficient to win elections. In recent elections across Africa, less than half of voters had the opportunity to vote for a co-ethnic executive (Horowitz 2019). Moreover,

winner-take-all electoral institutions limit regional parties. To win office, a leader must forge a complicated mix of loyal followers, opportunists, and rivals from across the country into a winning coalition. Party institutiuonalization remains weak as coalitions form and dissolve around leaders' attempts to hold groupings together and concentrate power between elections.[2]

Allocation strategies may vary across voter types, groups, and electoral cycles (Golden and Min 2013). Theoretical work comparing voter targeting are based on models by Dixit and Londregan (1996), contrasting cases where parties target core or swing voters. In the original model, parties primarily target swing voters, but may switch to core voters (machine politics) if the informational advantage allows them to significantly reduce wasted spending. There is evidence that developing country governments target "weakly opposed" voters (Stokes 2005), though they may leverage loyalists as a vote bank when they need to rely on intermediaries (Stokes et al. 2013).

Empirical results are mixed. A large literature points to in-group favoritism as a primary driver of geographical allocation for infrastructure (Ejdemyr, Kramon, and Robinson 2018; Harris and Posner 2019; Malik 2021; Stokes et al. 2013), aid projects (Bomprezzi et al. 2024), and agricultural inputs (Mason, Jayne, and van de Walle 2017). However, other studies point to the importance of winning over unaligned electoral constituencies (Schady 2000; Gottlieb et al. 2019). Further work highlights hetrogeneity across types of goods (Albertus 2013) party (Briggs 2021), or regime (Burgess et al. 2015). In many works, the existence of organized blocs and unaligned brokers is crucial turning state funds into votes Baldwin (2014). In a widely cited study, Kramon and Posner (2013) use household survey data as a proxy for government spending, finding that patterns of ethnic favoritism vary unsysematically across countries and sectors. They conclude that generalizations are largely futile without a full picture of spending.

How do we reconcile these competing stories? Different kinds of spending do different political work, benefiting different constellations of politicians and voters. Leaders follow different strategies depending on whether they risk alienating voters or elites.

### 2.0.1 Debt and the Budget Constraint

Optimal allocation strategies vary with the pool of funds available. The existing literature on distributive politics, designed around the choices faced by developed-country governments, assume that a governments' ability to fund distributive transfers is constant. By relying on broad tax bases and deep domestic markets, developed country budgets are essentially redistributing resources within the country. By contrast, developing countries- by definition- have limited access to additional capital. In the last twenty years, these countries have tapped external finance and developed domestic markets to fund government priorities.

[2]Data from V-Dem show that across Africa, party institutionalization has stagnated since the 1990s.

However, the accessibility of this finance is driven by global factors rather than country-specific conditions Cormier and Naqvi (2023). Global investors' appetite for risky assets from developing countries depends on the returns to safer assets like US treasuries Rey (2015). For countries with shallow capacity for taxation or domestic borrowing, global capital cycles determine the cost of borrowing. This in turn, shapes how much money the government can spend on other priorities.

Rising costs limit the ability to undertake new debt-financed projects and shrink resources available for wage growth. Higher interest rates also increase the size of debt service, which is typically the second largest category of spending after emoluments[3]. When debt costs rise, everything else gets squeezed. This shifts the distributive calculus, making leaders more sensitive to how their spending translates into political support.

# 3 Theoretical Approach

How do political leaders hold together a ruling coalition in the context of debt dependence?

The executive can rely on the fact that local politicians are vulnerable. Across Sub-Saharan Africa, just over half of sitting legislators contest, and less than a third are re-elected (Bowles and Marx, n.d.). In the multiparty era, voters are eager to oust politicians who are not delivering Seekings (2022). In electoral strongholds, leaders can offer politicians the security of a party nomination. Outside of strongholds, they must offer concrete benefits that voters attribute to the local politician.

When debt costs squeeze fiscal space, politicians allocate resources to loyal *voters* and strong *politicians*. In electoral strongholds, leaders rely on spending that voters attribute to the political center to maintain voter loyalty while limiting the emergence of rivals. By contrast, where MPs can credibly threaten to leave the coalition, leaders concede geographically particular investments that boost the popularity of local politicians.

### 3.0.1 Keeping Voters Loyal

Most parties emerge from a particular region, enjoying hegemony over on a voter base that will never defect to an opposing party. Leaders can exploit these voters, extracting extra because of their lack of alternatives (Kasara 2007). In particular, parties control nomination in these areas, selecting who will run under the party banner Choi (2018). This leaves sitting MPs vulnerable to the party hierarchy. Take the example of Joseph Munsanje, who was ousted from the party nomination after the party brought in an external candidate:

[3]Just before default in 2022, Ghana's debt servicing costs exceeded its total wage bill

> "When we were doing the primaries and the like, I won…then some provincial officials and a few district officials decided to replace me. And the constituency chairman and his team…supported me that I should run as an independent. And then they had to bring actually the national management people, had to come to campaign to help that guy. To get him across the line. So that is the only way they managed to beat me" [L008].

Despite his attempts to run as an independent, voters aligned with the candidate of the dominant local party, and Munsanje had to wait until 2021 to be granted nomination and win office.

While parties may enjoy hegemony over *nomination*, they are not guaranteed electoral victory. Local politicians with strong grassroots support can successfully run as independent candidates, beating the party's nominee. For example, Menyani Zulu cut his political teeth mobilizing youth in the Copperbelt for Michael Sata, and was sent to China to learn rural organizing. But when he returned to his home in Eastern province, he was not selected for the PF ticket. However, he still contested elections, winning in his second attempt in 2021. He attributes his victory to his history in the village and the reputation of his trucking company [L009].

Party leaders also fear the emergence of fellow party members becoming popular and rivaling their claim to represent the region. They must walk a fine line, building support for the party rather. than its local representative. To achieve this, they must spend in ways that strengthen voters' links to the party rather than individual candidates.

### 3.0.2 Winning Strong Politicians

By contrast, outside of strongholds, leaders need to recruit politicians who can deliver votes in competitive elections. These local politicians can rely on material, symbolic, and organizational strength to deliver electoral victory (Adebanwi and Orock 2021; Khan 2017; Riedl 2016). However, these strong politicians can exit parties, defecting into new alliances and bringing voters with them. Even when floor crossing is banned, it is common for politicians to vote with other parties. Often, these elites are bought with high level positions (Arriola 2009). However, these MPs also need to be re-elected, to do so, they must deliver benefits to their constituents that maintain their personal popularity.

These MPs typically push for spending that boosts their personal popularity (Winter 2025). MPs who can credibly threaten to leave the coalition are more likely to have their requests granted. For example, in the 2006 presidential election in Vubwi constituency, the MMD lost by 5%. However, local MMD candidate Eustakio Kazonga won by a margin of 10%. He reflected: "When I was competing for the first time in 2006, my president lost. But I won. So, what it is that, sometimes the electorate go beyond the party, right? They concentrate on individuals" [L001]. Unlike Munsanje, who needed party backing to win, Kazonga won on his own resources. "[Voters] didn't fully believe in the MMD. But they took me as an individual". This paid off–

In 2012, Vubwi was separated into its own district, a move that brought significant investment for more administrative, housing, and police infrastructure [L104].

Executives manage their coalition through a dual strategy: where they risk alienating citizens' allegiance to the party, they must keep voters loyal, but where citizens' allegiance is to local politicians, they must keep these elites in the fold. Since these MPs have leverage, they can extract concessions from the executive. By contrast, in districts where voters will follow the party no matter what, MPs have little claim to make demands from the centre. This is why politicians like Mwanza and Kazonga could win support for spending in their constituencies.

## 3.1 Sectors & Attribution

Leaders balance these twin pressures by using different types of spending to maximize their political payoff. I consider how different types of spending vary in the degree to which it is geographically targeted to particular places and whether local MPs can claim credit for successful implementation. These dimensions are mapped in Table 1.

Table 1: Sectors by Particularity and Attribution

| | Broad Attribution | Local Attribution |
|---|---|---|
| **Geographically Particular** | Routine Maintenance | Reward politicians: New Infrastructure (Roads, bridges, buildings, wells) |
| **Nationally Shared** | Reward voters: Teacher Salaries; Health Supplies | CDF; Agricultural Inputs |

First, spending varies in its geographic particularity, the degree to which the spatial spillovers of investment are limited. Providing local public goods like roads or office blocks benefit a single area. These types of investments typically involve significant discretion, and so are most often used in studies of distributive politics (Harding 2015; Briggs 2021; Díaz Cayeros, Magaloni Kerpel, and Estevez 2016).

By contrast, nationally shared benefits involve investment across a large number of districts. MPs might push for social protection policies or clearing public salary arrears, but any resources allocated to these areas are shared across the country. Of course, not all spending will benefit everywhere—fertilizer will benefit rural areas, and universities will benefit urban—but investment is not tied to a particular place. Constituency development funds (CDF) give local politicians total discretion over resources but must be allocated equally across all constituencies. Nationally shared items like health, education, and agriculture constitute what Mkandawire (2016) labels agrarian welfare regimes. Boone (2024) expands: 'Agrarian welfare regimes' seek to provide a subsistence floor for most of the poor by upholding the peasant model of rural household consumption and production. Prime instruments for doing so are

land policy, regionally and locally targeted "rural development" schemes (including farm input subsidies), locally targeted social service delivery (especially schools and health facilities) and, in some circumstances and places, food transfers and food subsidies (p.245). For example, recruitment of staff for schools and clinics happens at the national level. These are allocated at a national level, benefiting giving leaders less discretion over who benefits.

Spending also varies in the degree to which a local MP can claim credit for successful delivery. Cutting the ribbon on a new bridge does much more for an MPs popularity than ongoing spending for teacher salaries. Voters credit politicians for spending which is contingent and visible, such infrastructure or agricultural inputs (Bowles and Marx, n.d.). By contrast, MPs cannot claim credit for public sector salaries or social entitlements, which are the remit of the political centre. Of course, presidents do take credit for local infrastructure provision, flying in to be present at opening ceremonies for highways and hospitals. I focus here on the degree to which local politicians can also claim credit.

These different types of spending have different costs and benefits, and therefore I expect to find distinct allocation strategies between sectors. Executives enjoy significant discretion over the location of capital investments, but this kind of spending gives both the president and local politicians a strong boost. By contrast, the party can take full credit for shared spending, but this cannot be targeted to particular places. Local legislators prefer 'pork' projects that bring lucrative contracts and infrastructure to their constituencies. By contrast, national programs such as service delivery in health and education boost the popularity of the political centre. Examining fifteen years of MP speeches reveals this pattern to hold in the Zambian parliament (Winter 2025). This approach builds off Albertus (2013) in suggesting that different types of spending might be allocated differently. However, where Albertus considers the *durability* of different spending, I consider the attribution of different types of spending.

### 3.1.1 Sectors

Infrastructure spending is large, durable and hard to renege on. It provides ample opportunities for strategic comtracts and kickbacks. Most importantly, it boosts the popularity of the local MP, decreasing the costs they pay for re-election. An extensive literature discusses the politicized allocation of capital projects in developing countries Bomprezzi et al. (2024).

By contrast, wage spending is far less explored, and studies typically examine the impact of austerity on civil service as a whole (eg. Madimutsa et al. 2021). The public sector wage bill is typically the largest single spending item for states. These jobs are attributed to the centre, where hiring decisions are made. Public appointments may function as incentives or rewards for party loyalists, and may also act as inducements for rivals not to run (Bob-Milliar 2012). Robinson and Verdier (2013) spell out additional logic, highlighting that "a job is a credible, selective, and reversible method of redistribution, which ties the continuation utility of a voter to the political success of a particular politician" (p. 261). Their model suggests that patronage is more effective when productivity is low and political stakes are high, which

is the case across most of Sub-Saharan Africa. Wages are less costly to leaders because they are reversible, delay-able, and more generally subject to ongoing discretion. Where parties are seeking to keep the loyalty of voters, rather than elites, wage spending is an optimal tool.

*H1: Strong politicians will receive more funding for local infrastructure*

*H2: [Party loyalists] will receive more funding for salaries in their districts.*

## 3.2 Debt

If the same dollar can be used to appease loyal voters with wages/service or win over elite with infrastructure, which will a leader choose? The cost of debt changes the attractiveness and flexibility of each of these.

When debt costs rise, there will be cuts, but these won't be the same across goods. Manger, Cormier, and Winter (2026) explore the comparative statics of allocation under a multi-period model which includes a shifting budget constraint. When the cost of borrowing rises, parties shift resources to districts with higher marginal utility and/or swing density. I follow a similar argument, but highlight the importance of elites to the leader's coalition and differences across sectors.

I expect that my hypothesized strategies will drive outcomes when budgets are most pressed. Shrinking fiscal space will force leaders to be more strategic with their funds, shifting allocation in such a way as to maximize political impact. However, this too can vary across sectors. While money is technically fungible, there are several reasons to expect rising borrowing costs to have differential impacts across types of spending.

Governments think about infrastructure in the context of debt, because borrowing is often explicitly tied to financing particular projects. Inasmuch as borrowing costs constrain the governments budget, it is through cuts to infrastructure spending (see below). By contrast, spending on emoluments is much less lumpy, and is typically a large part of the general operations of government, which are assumed to be funded by the regular government revenues. Wage spending is also more flexible: governments can reverse, delay, or freeze wage spending more easily than they can back out of investment contracts. While wage spending typically rises in nominal terms, inflation-based erosion is common. Moreover, public sector salary arrears are very common across the developing world. Combined with high inflation, they represent the opportunity to borrow at negative real rates. This discretion can be useful for smoothing cash flow and responding to high formal borrowing costs.

My interviewees also suggested a switching effect, where lower infrastructure leads governments to "compensate" with local hiring. As one interviewee explained, the Zambian government's choice to recruit 30,000 teachers while cancelling numerous infrastructure projects was because: "[President] Hichilema knew that he had to take with one hand, so he had to give with the other" [L101]. For aid-dependent countries, donors may also play a role. High rates

make concessional finance more attractive, which can directly finance teachers and nurses or indirectly pressure governments to do so.

*H3: Rising borrowing costs will be associated with lower infrastructure spending*

*H4: Rising borrowing costs will be associated with protected wage spending*

### 3.3 Interaction

Finally, I test whether these two factors will interact, such that rising interest rates will have different impacts in different places. When their budget constraint tightens, governments will shift investment away from weak politicians' districts toward stronger ones in order to maintain their loyalty. At the same time, a squeezed budget will require that wage spending be used to full advantage, so it will be shifted to where it can continue to ensure regional dominance. This also serves as a test of whether a "shrinking pie" is a necessary condition for these patterns to emerge.

*H5: High borrowing costs lead to reallocation of infrastructure spending to stronger politicians.*

*H6: High borrowing costs lead to protection of wage spending where voters are loyal to parties*

## 4 Context: Debt and Democratic Competition in Zambia

To test this theory, I first turn to Zambia, a country which has seen decades of democratic competition and seesawing relationships with global markets, making it an ideal case to observe the implications of this theory. I then examine Kenya, testing the generalizability of my theory to a country with a history of much more fractious ethnic politics.

Since the transition to democracy in 1990, Zambian politicians have been forced to make coalitions to win and keep power. Financially, Zambia's path matches many other post-colonial contexts: structural adjustment in the nineties, debt forgiveness in 2006, a flush of foreign capital when interest rates hit zero in the developed world, a nd finally, the pandemic-era crisis. Through all this change, spending on different sectors has varied considerably.

Zambia was one of the earliest third wave democracies, embracing elections in 1990. While most of Zambia's parties emerged from a particular region, there is no single ethnic group large enough to win a political majority on its own. Consequently, politicians have been forced to build coalitions to win power. Alignments have shifted over time, leading to distinct arrangements between and within the MMD, PF, and UPND governments. Broadly, each political party has emerged from a home region and has won over urban areas and a few other key constituencies to force a turnover. The case of the PF is slightly distinct, as Michael Sata had urban support early in his political career and won office by making significant inroads with Bemba speakers Banda et al. (2020). Politics is often aligned along the North-South axis of

the colonial rail line, pitting the Copperbelt and its unions in the north against commercial agriculture in the south (Hern 2019) . Nonetheless, Zambia's Eastern and Western provinces play important roles as well (Seekings 2022) . In the West, a long history of separatism has cultivated generations of political elite eager to extract regionally particular concessions Banda et al. (2020) . A series of elites from the East were at the centre of the early multi-party regime. Politicians frequently change allegiance between elections, with parties staging elaborate defection ceremonies at rallies to bring voters along with the switch.

Figure 1 maps the total number of MP defections, cases in which a sitting MP previously ran under a different party over 5 assembles (2001-2021). The map shows significant elite switching in the Eastern and Western provinces as well as in the urban areas of the Copperbelt and Lusaka (inset).

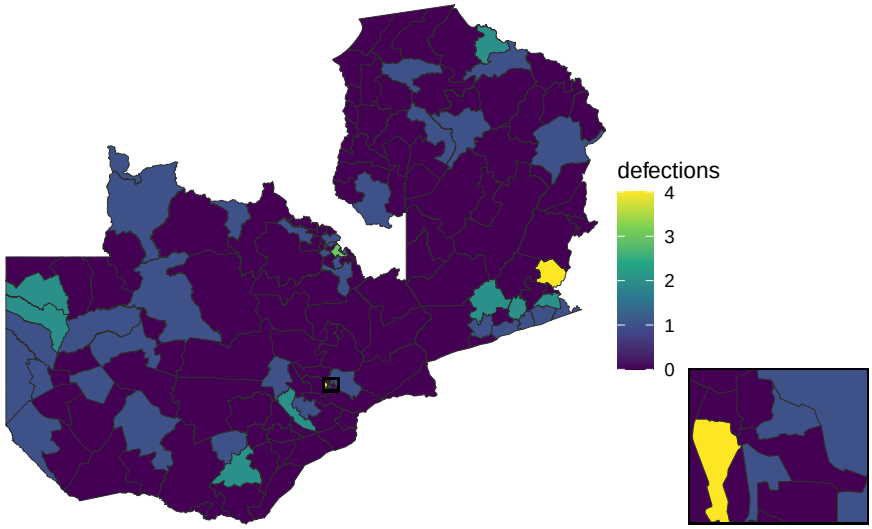



Figure 1

## 4.1 Infrastructure and Wage Spending in Zambia

With each realignment, Zambia's government pursued a distinct and regionally targeted spending strategy Kim (2018). For example, Michael Sata's signature policy was nationwide road building campaign, while Hakainde Hichilema made waves for announcing recruitment of 30,000 teachers in 2021. Qualitative evidence affirms that leaders exercise strategic discretion over these flows.

Officially, infrastructure upgrades are awarded according to technical criteria, prioritizing rural areas and those with least access to services. However, as in politics everywhere, there are numerous levers through which the president and cabinet can influence outcomes. Bureaucrats in charge of budget choices reported that they only make *recommendations* which are

passed on to the relevant minister (L104, L107, L115). One civil servant in charge of infrastructure planning clarified: "Decisions are made at two levels. As the ministry, you look at things like district size and population and plan where to put these facilities. But you do not have final say. Other decisions happen further up with other criteria" (L115). Leaders also channel resources by creating new districts, which require significant funding for new infrastructure: administrative blocks, police stations, and staff housing (L109). Between 2006 and 2012, the Patriotic Front government increased the number of districts from 72 to 116. This was ostensibly done under the mantra of decentralization, but also allowed the government to allocate new resources and create jobs in the newly created districts. Typically, district delimitation occurred by taking a district that covered two constituencies and splitting it such that each constituency had its own district. Individual MPs also lobby for infrastructure in their constituencies, and have more leverage if the minister is behind them (L001, L109).

Wage spending is also subject to political pressure. Zambia has seen waves of reforms of its civil service, with donor-instituted new public management curtailing the size and leverage of the public sector in the 1980s and 1990s (Madimutsa et al. 2021). After the transition to democracy, the MMD continued this process, finalizing the privatization of many state owned enterprises. When Michael Sata came to power in 2011, one of his first actions has to dramatically increase the public minimum wage, effectively doubling the salaries of the lowest paid civil servants. This improved morale and reduced the number of people leaving (L003). As a largely urban, somewhat richer constituency, this was basically a transfer enhancing consumption for the middle class.

However, the PF also had to reward everyday Zambians who had brought them to power. Under the PF, political cadres became a major public issue as young party supporters took thuggish control of markets and bus stations (Resnick 2022). The violence actions of these cadres and the inability of the regime to reign them in was a major factor in the PF's loss of public support [L016]. When the UPND came to power in 2021, they promised the end of violent cadreism. However, there were still many young party supporters that had done the work of mobilizing votes for the party, who expected commensurate benefit. Another expert told me "[Teaching] provides a good platform for the government to provide employment. Right. But if we were to be critical, teaching doesn't pay that much. Right. So you can afford to recruit at a large scale" [L016]. As discussed above, recruitment is also an important lever for delivering benefits to voters.

MPs also have much less interest in and ability to impact recruitment (Kabir 2023, L102). Recruitment is done centrally by the ministries with input from minister (L109, L115, L116). In the ministry of health, wage budgets are typically incremented from previous years. However, completed capital projects (new clinics or hospitals) are considered for recruitment (L115). Both infrastructure and wage spending are subject to significant political discretion in Zambia.

### 4.2 Debt and Policymaking

Debt is also a major consideration in budget planning. Policy documents explicitly link increased borrowing costs to reduced capital expenditure. In the 2025 budget framework, the ministry of Finance and National Planning (MoFNP) lists "tight global financial conditions" as a key risk to budget implementation. They elaborate "high global interest rates increase the cost of borrowing, reducing fiscal space for development spending" (MoFNP, 2025, p. 26). Similarly, in 2024 the Ministry notes that rising debt costs will "negatively affect investment expenditure" (p. 24). This is in contrast to other types of resource inflows like mineral royalties. Fluctuating copper price is also listed as a risk, but the consequence is not particular to any type of spending, with the ministry only remarking that lower copper prices would lead to "widening fiscal and external imbalances" (p. 26).

Borrowing costs can impact spending in two ways. First, governments may be more willing to take on loans when rates are low, and more wary when costs are higher. For example, in 2010, MP Peter Daka argued in favour of debt: "no businessman has ever developed without borrowing and we are borrowing this money at a reasonable interest rate.' '[4]. Higher borrowing rates can also limit investment by increasing the cost of debt service. In the case of road construction, many debts are kept on the books of implementing agencies rather than at the ministry of finance. Debt payments on completed projects and interest on arrears for incomplete projects choke off the ability to start new projects [L112, L113]. General government debt service decreases the overall envelope available for wage and investment spending. In the next section, I operationalize these measures and test the observable implications of my theory.

## 5 Empirical Approach

### 5.1 Data and Methods

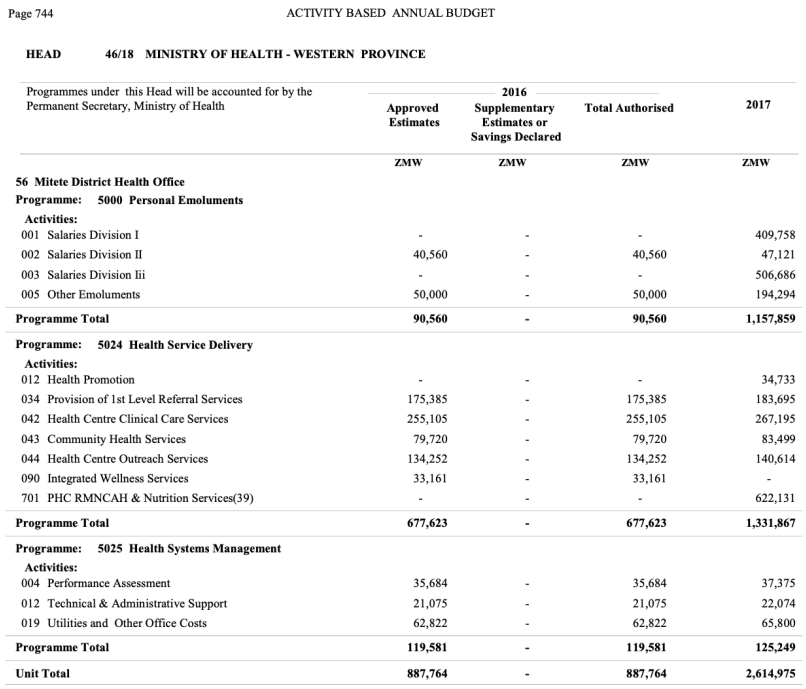
Scholarship on distributive politics has taken a variety of empirical approaches (see Cox 2010). I use constituency level expenditures drawn from administrative data Harding (2015) rather than survey-based reports of clientelist transfers Kramon and Posner (2013). I also use electoral data to evaluate constituency type retrospectively, rather than judgement based measures of "competitive" districts. I elaborate and justify my choices below.

#### 5.1.1 Dependent Variable: Constituency-Level Expenditures

To examine allocations to different groups, I use the Ministry of Finance *Activity Based Budgets* (Yellow Books), published from 2006-2020. These documents offer a granular view of the

[4]Debates: March 4, 2010, Retrieved from: https://www.parliament.gov.zm/node/1574

geographic allocation of resources across sectors. Each yellow book is around 1500 pages, and the total archive runs 27,961 pages. Figure 2 shows a sample page from 2017. I convert these into a machine readable format, collecting 383,666 budget line items. I then tag spending on infrastructure, health, education, and agriculture. I also distinguish wage and non-wage spending. Wage spending includes salaries and benefits, while non-wage spending includes goods and services.



Page 744 ACTIVITY BASED ANNUAL BUDGET

**HEAD 46/18 MINISTRY OF HEALTH - WESTERN PROVINCE**

| Programmes under this Head will be accounted for by the Permanent Secretary, Ministry of Health | 2016 Approved Estimates | 2016 Supplementary Estimates or Savings Declared | 2016 Total Authorised | 2017 |
|---|---|---|---|---|
| | ZMW | ZMW | ZMW | ZMW |
| **56 Mitete District Health Office** | | | | |
| **Programme: 5000 Personal Emoluments** | | | | |
| **Activities:** | | | | |
| 001 Salaries Division I | - | - | - | 409,758 |
| 002 Salaries Division II | 40,560 | - | 40,560 | 47,121 |
| 003 Salaries Division Iii | - | - | - | 506,686 |
| 005 Other Emoluments | 50,000 | - | 50,000 | 194,294 |
| **Programme Total** | **90,560** | **-** | **90,560** | **1,157,859** |
| **Programme: 5024 Health Service Delivery** | | | | |
| **Activities:** | | | | |
| 012 Health Promotion | - | - | - | 34,733 |
| 034 Provision of 1st Level Referral Services | 175,385 | - | 175,385 | 183,695 |
| 042 Health Centre Clinical Care Services | 255,105 | - | 255,105 | 267,195 |
| 043 Community Health Services | 79,720 | - | 79,720 | 83,499 |
| 044 Health Centre Outreach Services | 134,252 | - | 134,252 | 140,614 |
| 090 Integrated Wellness Services | 33,161 | - | 33,161 | - |
| 701 PHC RMNCAH & Nutrition Services(39) | - | - | - | 622,131 |
| **Programme Total** | **677,623** | **-** | **677,623** | **1,331,867** |
| **Programme: 5025 Health Systems Management** | | | | |
| **Activities:** | | | | |
| 004 Performance Assessment | 35,684 | - | 35,684 | 37,375 |
| 012 Technical & Administrative Support | 21,075 | - | 21,075 | 22,074 |
| 019 Utilities and Other Office Costs | 62,822 | - | 62,822 | 65,800 |
| **Programme Total** | **119,581** | **-** | **119,581** | **125,249** |
| **Unit Total** | **887,764** | **-** | **887,764** | **2,614,975** |

Figure 2: Sample Budget Page

In interviews, politicians, civil servants, and academics all cited the Yellow Book as authoritative. One senior civil servant told me: "If it's in there, that's what they did". An MP recalled finding a mathematical error in the budget, leading parliamentary proceedings to be paused for three days while the numbers were re-checked [L001]. Throughout my fieldwork, I encountered copies of the printed Yellow book in offices across a number of ministries. The printed document weighs several kilograms, and in several offices served double duty as a robust doorstop. The document is regularly referenced in legislative debate as the official measure of government spending.

Amounts reported in the yellow book are imperfect measurements of my dependent variable, but I still find reason to value them as a source of information. Side payments to voters and elites are certainly part of governments' strategy. To the degree that this type graft exists, it may be captured by infrastructure spending, as corruption often occurs through inflated procurement contracts (Auditor General, 2024). By contrast, wage spending comes

through the centre and flows directly to employees. Typically corruption in wage spending occur through absent employees (Kabir 2025), which would leave the political work of hiring unchanged.

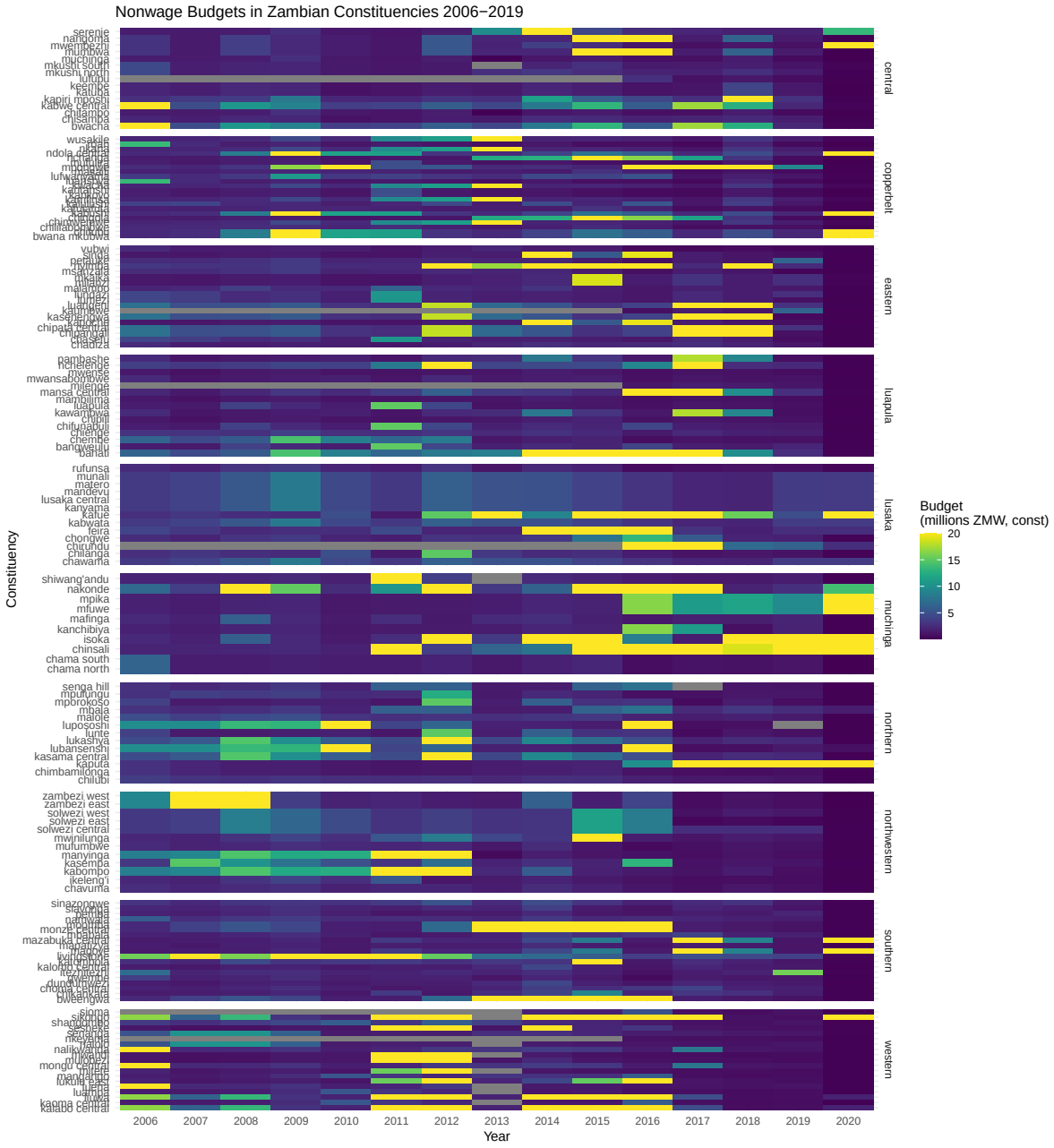
At the same time, budgets may instead underestimate spending. Releases often do not always match budgeted amounts. If releases are systematically different, then my conclusions may be biased. However, I add two points in favour of my approach. First, the budget itself matters– even if imperfectly implemented, the institution allows for contestation and offers ways for politicians to remedy non-releases. Second, I would expect bias to go in the opposite direction that I observe. If anything, I would expect the budget to show distribution according to technocratic criteria. Instead, I find significant evidence of discretionary spending in favour of swing politicians. This is more consistent with the idea that the Yellow book is the *result* of a process of discretionary allocation, not simply cover for it.

Finally, these data do not represent the universe of government spending. The Yellow book misses some individually targeted transfers such as as agricultural inputs or cash transfers, which have been shown to be distributed according to clientelist principles (Mason, Jayne, and van de Walle 2017). However, the coverage is still quite broad, covering health, education, agriculture, and administrative spending over a 15 year period, much broader than many similar studies. While imperfect, I maintain that this is nonetheless an illuminating source of information of the priorities of the Zambian government.

Funds are allocated at the district level, but I group data by the constituency level. Districts contain one or more constituencies. For example, Lusaka district contains seven constituencies. In all except one case, constituencies are contained within a single district. In cases where a district contains multiple constituencies, I divide the budget allocation equally across constituencies.

This matters because creating new districts is a major way to allocate new resources to particular areas. I track shifting district and constituency boundaries across this era.

### 5.1.2 Wage and Non-wage Spending



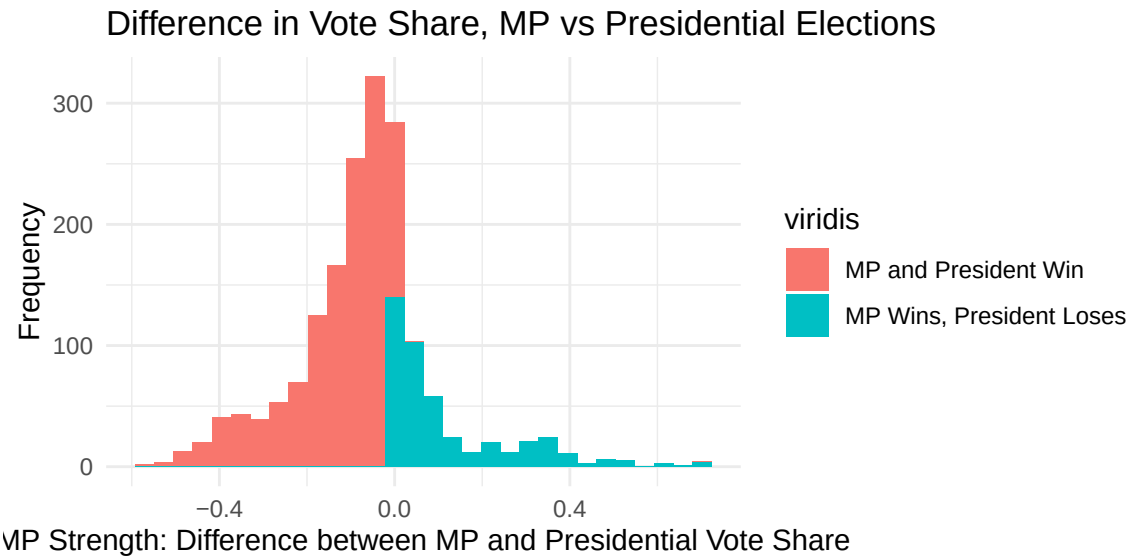

This figure shows non-wage spending, which includes both administrative and capital spending. As hypothesized, this spending is far more lumpy, with large single-year allocations to different constituencies. Some patterns emerge from the data. Muchinga province receives significant

investment after Edgar Lungu takes office in 2015 [5]. Western province also receives significant investment between 2011 and 2015, when Michael Sata was trying to win support from Barotse elites in the West, and the number of districts in the province doubled.

Wage allocations also vary considerably between between constituencies. For example, in 2014, Tier 1 salary allocations for Health services doubled from 1 million to 2 million kwacha. Meanwhile, an hour down the road in Sinda, they went from 963,658 to 261,130, a significant reduction. Despite a similar official technocratic logic, wages are also politicized, though variation is less lumpy than for infrastructure Figure 12.

### 5.1.3 Independent Variable: MP Strength

I hypothesize that MPs can successfully secure costly concessions from the centre when they can threaten to bring voters with them to an alternate party. This is something that many MPs contemplate (Sishuwa 2025). MP strength is a uniquely difficult concept to measure. However, Zambia's hybrid political system allows for a meaningful comparison between candidate and party popularity. Citizens vote for parliamentary and presidential candidates at the same time. If candidates are indistinguishable from their parties, then we would expect no difference between vote shares for MPs and presidential candidates. In reality, we find significant variation, including cases where a party's MP wins the local election but their presidential candidate does not. This occurs in 19.2% of my observations. I measure MP strength as the difference between the MP vote share and presidential vote share in the last election, though this can change between elections with byelections. MPs who get higher vote shares than their parties are strong.




[5]Districts that ended up in Muchinga are displayed as such

### 5.1.4 Borrowing Cost

I use several measures of borrowing cost. My first measure is the yield on US ten year bonds, a common measure of global liquidity. This is my preferred measure because it is plausibly exogenous. US rates move globally and independently of country conditions. Rates vary considerably throughout this period, which I end in 2020, because although rates dropped, Zambia's default prevented them from accessing credit.

I use debt service to measure the impact of debt costs. In particular, I use the annual change in debt servicing costs. At shown in Figure 3, this is correlated with US interest rates. When US rates are high, Zambia increases its debt service by less. By contrast, when rates are low, debt service increases.

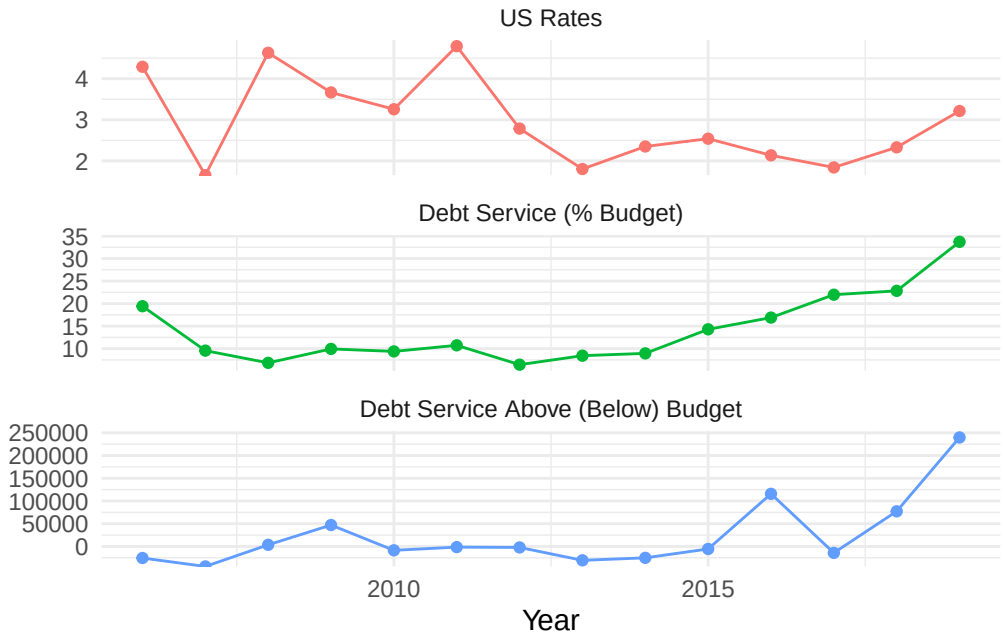



Figure 3

### 5.1.5 Controls

I also include several controls. First, I control for whether an constituency's MP is a member of the ruling party. I also control for the level of development, proxied by the average annual nightlight intensity (Li et al. 2020).[6] Since copper prices also shift the government's budget

[6]Nightlights are not a perfect measure of economic activity, but in this case, the geographic regions are large and intensities are averaged over a year, they do capture differences between more developed and highly rural Zambian constituencies.

constraint, I control for the price of copper on the London Metals Exchange. Finally, I include constituency effects for unobserved fixed characteristics.

### 5.2 Models

As theorized earlier, I expect that MPs' bargaining position relative to the executive will vary based on the strength of the MP and the government's ease of borrowing. I model this interactively using the variables above. I also control for the level of development by using nightlight value as a proxy and include constituency level dummies.The specification for the interactive relationship is:

$$\begin{aligned} Spending_{it} = \beta_0 + \beta_1 Strength_{it} + \beta_2 Interest_{t-1} + \beta_3 Strength_{it} * Interest_{t-1} \\ + \beta_4 Nightlights_{it} + \beta_5 Ruling_{it} + \beta_6 Copper_{t-1} + \theta Constituency_i + \epsilon_{it} \end{aligned}$$

## 6 Results

I show both un-interacted and interactive models for both dependent variables in Table 2. Model 1 shows that stronger MPs get higher infrastructure spending, confirming H1. While the relationship between MP strength and wage spending is negative, the estimate is indistinguishable from zero, giving little support to H2 . Similarly, the relationship between interest rates and infrastructure spending is null, and the relationship with wage spending is – against expectations– positive.

However, the results are closer to theoretical expectations once the interaction term is included. Most importantly, between models 2 and 4, the sign of the interaction is flipped. The first interaction term is significant, which is strong evidence of a true interactive relationship (Pepinsky 2018). In the next section, I probe the interactive effect for both sectors.

Table 2: Main Results

| | Infrastructure | Infrastructure | Wage | Wage |
|---|---|---|---|---|
| MP Strength | 1.4** | -2.9+ | -0.1 | 0.65 |
| | (0.5) | (1.6) | (0.2) | (0.61) |
| Interest | 0.17 | 0.29* | -0.405*** | -0.43*** |
| | (0.11) | (0.12) | (0.047) | (0.05) |

| | Infrastructure | Infrastructure | Wage | Wage |
|---|---|---|---|---|
| MP Strength * Interest | | 1.49** | | -0.26 |
| | | (0.57) | | (0.21) |
| Light Value | -0.037 | -0.035 | 0.500*** | 0.499*** |
| | (0.040) | (0.040) | (0.026) | (0.026) |
| Ruling | -0.087 | -0.25 | 0.116 | 0.15 |
| | (0.217) | (0.22) | (0.099) | (0.10) |
| Copper Price | 0.00089 | 0.0012 | 0.00599*** | 0.00594*** |
| | (0.00152) | (0.0015) | (0.00071) | (0.00071) |
| R2 | 0.238 | 0.242 | 0.776 | 0.776 |
| Num.Obs. | 1806 | 1806 | 1806 | 1806 |
| Constituency Effects | Y | Y | Y | Y |

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

### 6.1 Interactive Effect: Wages

To explore the interactions, I proceed graphically (Brambor, Clark, and Golder 2006). Figure 4 and Figure 5 plot the marginal effect of an increase in global interest rates for each value of MP strength. Following Hainmueller, Mummolo, and Xu (2019), I also check for nonlinear interaction effects by binning the moderator variable. This splits the data into groups and calculates conditional marginal effect for the median value in each bin. This also prevents over-interpretation of the results based on extrapolation of moderator values that lack support.

The opposite signs of the interaction terms are more clear in these figures, highlighting the difference between how constituencies with strong and weak MPs are treated differently. In other words, impact of rising interest rates is different for infrastructure and wages. In both plots, the horizontal axis is MP strength, with MPs who outperform their parties on the right. First, for infrastructure, rising rates are associated with lower spending for weak MPs and more spending for strong MPs.

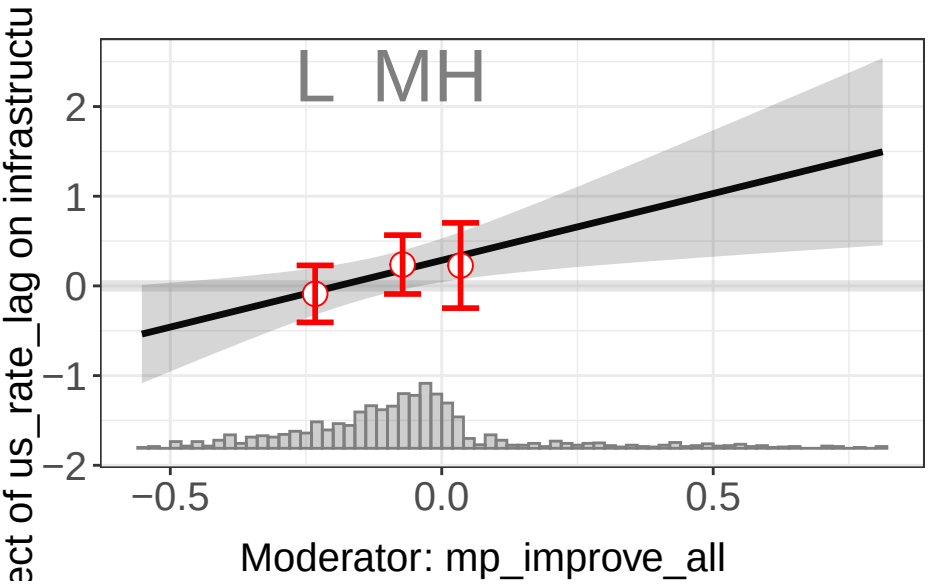



Figure 4: Marginal Effect of Rising Rates on Infrastructure Spending

For wages, the effect is opposite. Rising rates are associated with decreases in spending across all MPs, but the cuts are much higher for strong MPs, the same ones who are getting more infrastructure spending. While the slope is not as steep, and does not cross zero, the binned estimates suggest that the impact of rising rates distinct for the weakest (L) vs stronger MPs (M, H).

### 6.2 Alternative specifications

Are politicians really sensitive to global capital cycles? As described above, the main mechanism through which rising rates influence planning seems to be by driving up debt service costs. Therefore, I rerun my analyses with two alternative measures of borrowing cost which are more proximate to the policy process. First, I use the share of national expenditure spent on debt service from the World Bank. Debt service costs are a highly salient metric, reported each year in the budget speech and frequently cited in both political discourse and popular media. Politicians routinely lament the share of funds going to debt service that could have been invested in development projects.

I rerun identical models using debt service as a share of government spending. Figure 6 shows very similar results. In this case, the interpretation of the levels is also more intuitive: When debt service rises, weak MPs receive lower infrastructure spending and higher wage spending.

Finally, I check the impact of unexpected changes in debt service costs. I calculate the difference between the target and actual debt service costs from Bank of Zambia annual reports. This difference is driven by increased interest rates. This variable combines the strengths

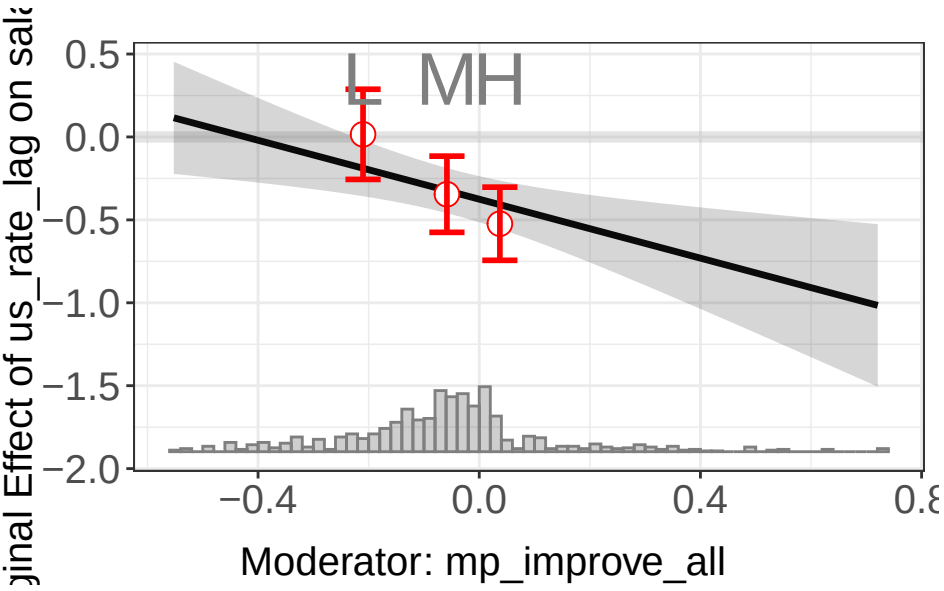



Figure 5: Marginal Effect of Rising Rates on Wage Spending (Ruling Only)

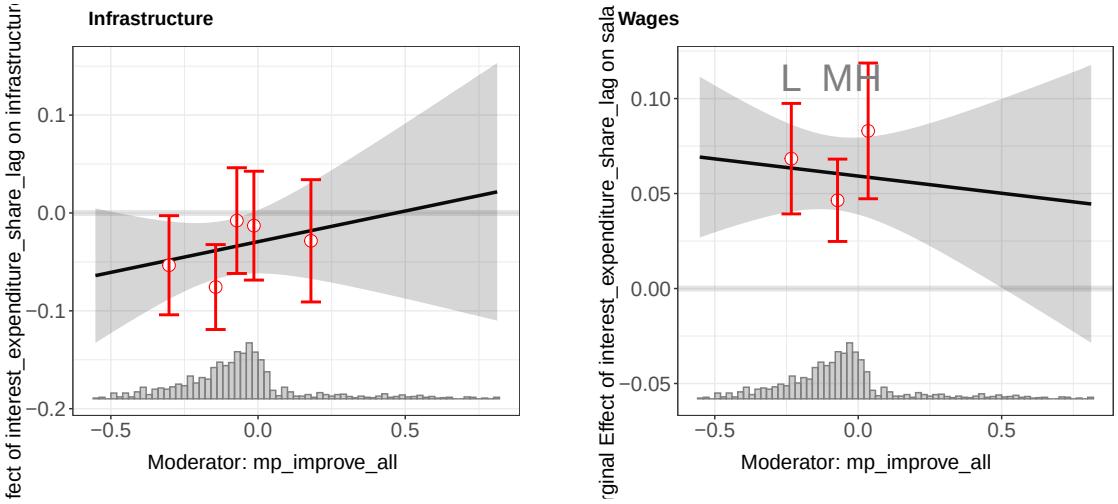



Figure 6: Marginal Effect of Debt Service Costs on Infrastructure and Wage Spending

of the first two operationalizations, taking into account both exogenous changes in interest rates and the overall level of debt service. One again, the interactions have opposite slopes, and rising costs are associated with weak MPs receiving less infrastructure and strong MPs receiving less wage spending.

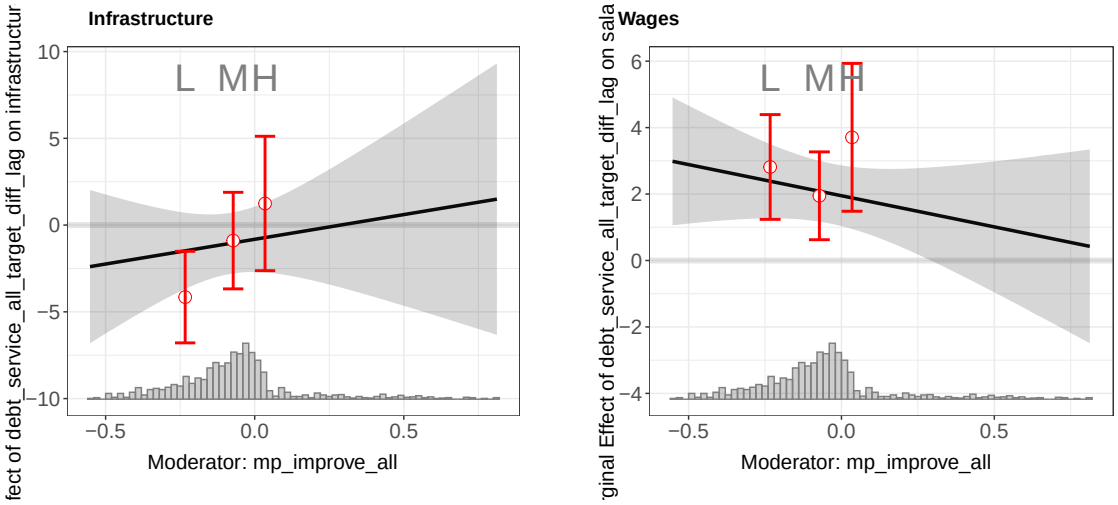



Figure 7

In the appendix, I report several other tests. I find identical results when I exclude urban Lusaka from the analysis. There is also some evidence that copper prices operate in a similar manner, with strong MPs protected from lowered spending when copper prices drop.

## 6.3 Kenya

Is this pattern limited to Zambia? I now turn to Kenya, showing that international financial conditions discipline fiscal allocation in a context where ethnic politics are much more salient. While in Zambia a presidential candidate might rely on up to a quarter of votes from coethnics, in Kenya, Kikuyu's are the largest group but make up less than 2% of the population and most groups are much smaller (Horowitz 2019). Ethnic identities are also much more salient, especially after post-election violence in 2007/08 (Horowitz 2019)

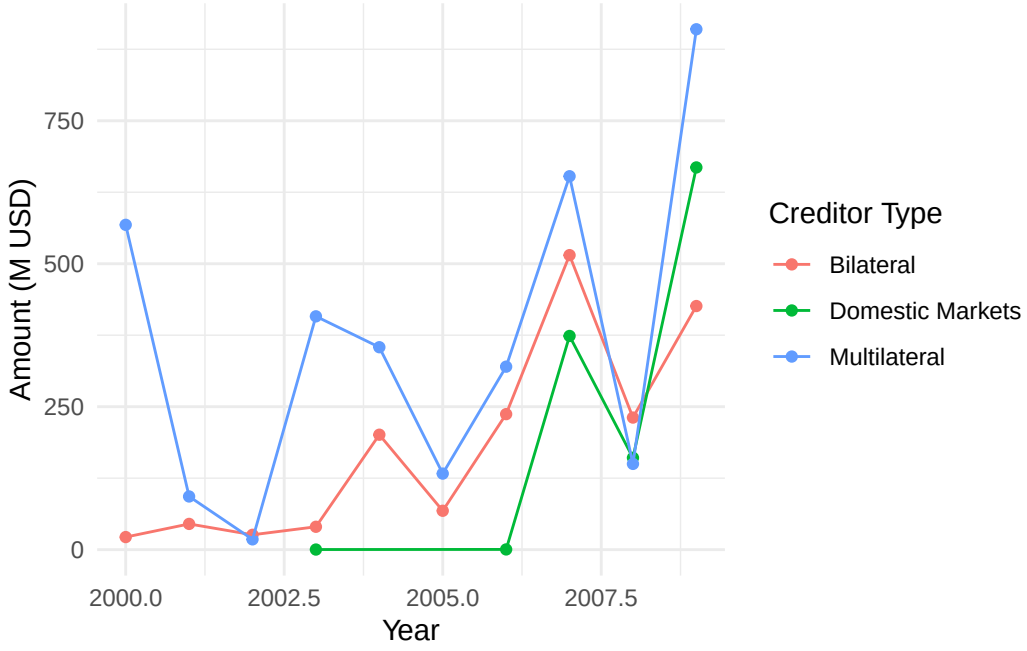
Kenya's politics in the multiparty era have been characterized by dramatic shifts in political coalitions as elites seek to win support of the majority of Kenyans. As in Zambia, none of Kenya's ethnic groups holds a majority. Consequently, political change in Kenya involves an rapidly shifting grouping of political elites, each promising to deliver votes from their respective ethnic blocs. In 2002, Mwai Kibaki headed the National Rainbow Coalition (NARC) to oust KANU and consolidate multiparty democracy. In 2007, post-election violence threatened stability until Kibaki crafted a government of national unity. Kibaki also passed a new constitution stipulating that presidential candidates win a 50%+1 majority and 25% of the

vote in more than half of counties [Constitution of Kenya, 138:4]. This intensifies the need for regional bargaining.

In 2013, Uhuru Kenyatta won the presidency with the Jubilee Alliance, an partnership between himself and William Ruto to defeat Raila Odinga. By 2017, this transitioned into the Jubilee Party, but political stability was only achieved after a handshake truce between Kenyatta and Odinga, in which Kenyatta agreed to support Odinga in 2022. This led Ruto to split with Kenyatta and incorporate urban residents and a different set of elites, to win the presidency under the banner of the UDA in 2022.

Even more so than in Zambia, Kenya's parties are ephemeral vehicles for elite groupings. In fact, it is typical that presidents run under party labels that are explicitly incorporate multiple groups: *alliance, coalition, movement*. However, Kenya's political alliances have been characterized by high-level deals made by pinnacle elites involving key positions (as in Arriola (2009)). Do leaders also use public spending to hold together coalitions?

A wide body of evidence highlights that Kenya's presidents channel resources to their core supporters. Under autocracy, resources flowed to the president's base Briggs (2014). At the same time, these core voters could be exploited for their loyalty (Kasara 2007). However, democratic pressures shifted the pressures toward coalition building, as increasingly powerful legislators pushed for independence (Opalo 2019; Harding 2015; Choi 2018).




Kenya also has a distinct borrowing trajectory, with a much stronger tax base and domestic debt market. Kenya did not participate in HIPC, and tapped international market international markets later than Zambia, issuing its first Eurobond in 2014. Private borrowing

expanded dramatically after 2010 and again in 2016-2019, even as bilateral finance dropped off. From 2018 onward, private external finance was higher than bilateral flows. While Kenya has manged to avoid defaulting on its debt obligations, Eurobond repayments in 2024 drove significant fiscal pressure, driving Ruto's ill-fated tax hike and subsequent protests. While Kenya remains structurally dependent on foreign capital, it is much less vulnerable than Zambia. This makes it a somewhat harder test for identifying the role of shifts in borrowing costs on policymaking.

### 6.3.1 Empirical Setup

Data are from the World Bank BOOST program, which accesses information directly from the Treasury payment system. County level expenditures are available for 2013-2021, and constituency level data are available for 2019-2021. Electoral data are from IEBC reports. For the 2017 election, I use first round results, which more accurately represent public support[7]. The closest setup to the Zambian case is to use constituency-level spending. However, here the data are limited, only available for 2019-21. Constituency-level capital spending represents 4% of all capital spending volume, but 25% of transactions, which leaves significant room for political discretion. Wage spending is not grouped at the constituency level.

I don't have enough leverage to test an interactive effect, so I examine only the political support variables. I find that an MP's vote share is not a good predictor of capital expenditure. Similarly, vote share for Kenyatta is negatively associated with capital allocation, though this relationship is not significant. However, strong MPs receive higher capital expenditure Table 3.

### 6.3.2 Results: Kenya

Table 3: Results - Kenya Constituencies

| | MP Share | Prez Share | MP Strength |
|---|---|---|---|
| MP Vote Share | 5.4 | | |
| | (3.5) | | |
| President Share | | -118 | |

[7]The August 2017 election was annulled by Kenya's Supreme court after being challenged by Odinga. However, the ODM was not satisfied by the changes made leading up to the rerun, instead boycotting the election. Kenyatta won 98% of votes on turnout of 39% (Cheeseman et al. 2019, 2018).

| | MP Share | Prez Share | MP Strength |
|---|---|---|---|
| | | (205) | |
| MP Strength | | | 4.7* |
| | | | (2.3) |
| Interest | -29 | -29 | 18 |
| | (189) | (197) | (108) |
| Ruling member | -153 | -76 | -141 |
| | (111) | (149) | (111) |
| Nightlights | -16.2*** | -16*** | -17*** |
| | (3.9) | (4) | (4) |
| Num.Obs. | 787 | 748 | 748 |
| Year Effects | Y | Y | Y |

* p < 0.05, ** p < 0.01, *** p < 0.001

To further test my hypothesis, I turn to county-level data, which is available from 2013 to 2021 and accounts for 85% of the spending on wages and capital in the BOOST data. Since counties are comprised of anywhere from 2 to 17 constituencies, I cannot identify MP strength at the county level. Instead, I take the average share of votes for president Kenyatta across each county.

As seen Table 4, the base effects are in line with the expectations of the theory. Counties that voted for Kenyatta received more wage spending, and higher interest rates are associated with lower spending.

Table 4

| | Wages | Wages | Capital | Capital |
|---|---|---|---|---|
| President Share | 4108*** | 4596*** | -540 | -794 |
| | (812) | (1017) | (755) | (946) |

| | Wages | Wages | Capital | Capital |
|---|---|---|---|---|
| Interest | -1031*** | -918*** | -288*** | -346* |
| | (91) | (168) | (85) | (156) |
| President Share x Interest | | -203 | | 105 |
| | | (254) | | (236) |
| Nightlights | 43.1*** | 43.3*** | 3.3 | 3.3 |
| | (6.5) | (6.5) | (6.1) | (6.1) |
| Num.Obs. | 368 | 368 | 368 | 368 |
| County Effects | Y | Y | Y | Y |

* p < 0.05, ** p < 0.01, *** p < 0.001

Electoral results have little moderating effect on wage spending, which decreases with borrowing costs across constituency types (Appendix Figure 16). However, for capital spending, there is reallocation to ~~swing~~ constituencies. The linear result is consistently negative, but the binned estimates in Figure 8 reveal heterogeneous effects. When interest rates rise, capital spending decreases in at both ends of the spectrum of Kenyatta support: places where Kenyatta's party received either *all* or *none* of the votes. However, counties in the *middle* are insulated from changes in borrowing costs, they do not receive less when costs rise[8]. This is consistent with executives protecting capital expenditure to places where they needs votes at the expense of their core supporters.

Kenya's ruling coalition shifts rapidly. However, there is little evidence that the Jubilee party shifted funds to their core supporters. Instead, the budget was used to build a coalition of support, winning over strong MPs. When rising interest rates shrank the pie, swing constituencies were insulated from cuts to capital expenditure.

## 7 Conclusion

How is policymaking different in the periphery? This paper shows that in a context of debt dependence, distributive strategies shift with the size of the pie. When interest rates rise, the government spends more on infrastructure in areas with strong MPs who are a potential threat to the government's winning coalition. By contrast, in their electoral base, parties respond

[8]The histogram at the bottom of the plot confirms that these three bins are distinct groups.

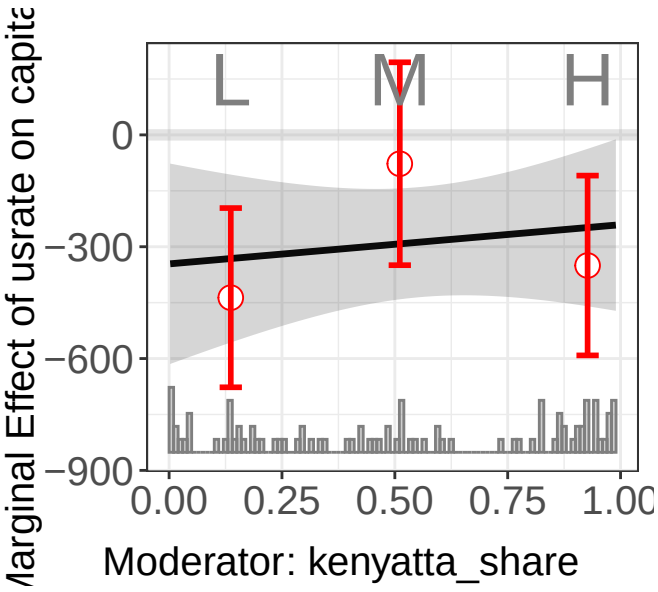



Figure 8

to budget pressure by increasing wage spending to main their public popularity. This has important implications for understanding both policy outcomes and political coalitions.

First, this paper builds on the literature on distributive strategies in the developing world. I affirms that the "outcome affects the answer" (Kramon and Posner 2013), but builds from this point to suggest why and how distributive strategies might be different across contexts. By using data on infrastructure and wage spending across sectors, I can identify strategic discretion across sectors. I also bridge the literature that focuses on winning over elites vs voters by showing that elite concerns matter more when elites have electoral leverage.

Second, it adds to the literature on the international determinants of domestic policy outcomes. In the context of multiparty competition, political elites are not "untethered" from accountability demands, but rather that these pressures are mediated through elites outside the ruling parties' base. Understanding electoral coalitions as a patchwork of regional interests (Boone et al. 2022) is an important corrective against simplifying electoral competition down to identity politics. These findings also suggest a self-undermining dynamic relationship impacting politicians' survival. Today's infrastructure spending is tomorrow's debt service. Taking on debt to win over elites in marginal constituencies increases debt costs, thereby limiting the ability to maintain their coalition in the future.

As access to different sources of capital expand, leaders' ability to expand their coalition will expand, securing their tenure. However, the global cycle of liquidity means that when cut off, leaders will be more vulnerable. This may lead to stronger regional dynamics in political turnover and regime stability (see, Wibbels (2006) and Cormier and Shea (2025)) .

Future research could explore comparative dynamics on whether debt-constrained distributive spending is a driving factor in elections and regime change.

# 8 Appendix

## 8.1 Without Lusaka

Lusaka is an outlier for many reasons, with higher population, many central government services, and seven constituencies in a single district, I rerun my models excluding it. Results are unchanges.

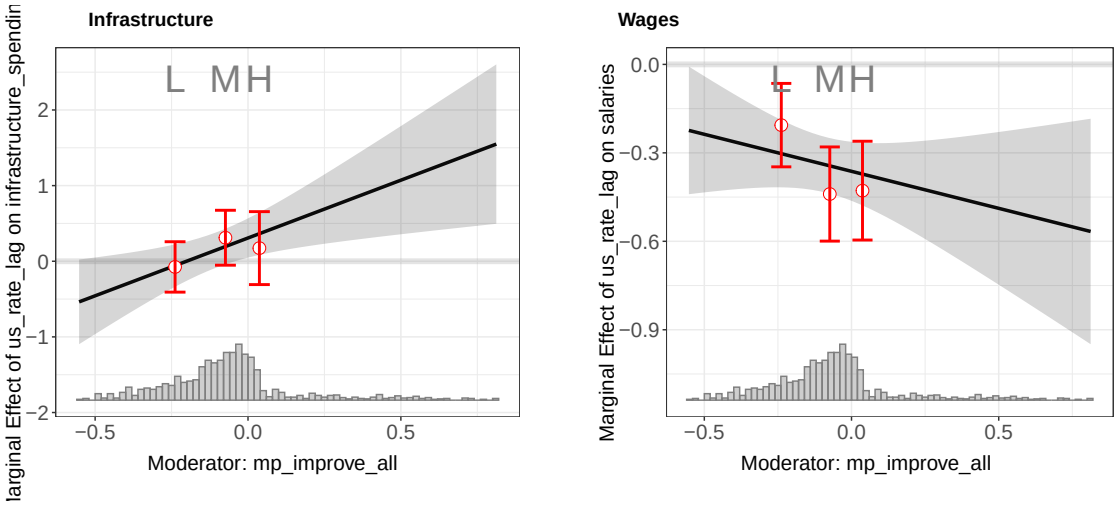



Figure 9: Marginal Effect of Rising Rates on Infrastructure and Wage Spending, Lusaka removed

## 8.2 Dynamic

## 8.3 Turnout

## 8.4 Alternative Specification Tables

Table 5: Results for Alternative Specifications

| | Infra | Infra | Wage | Wage | Infra | Infra | Wage | Wage |
|---|---|---|---|---|---|---|---|---|
| MP Strength | 1.3* | 0.38 | 0.048 | 0.31 | 1.3** | 0.98 | -0.026 | 0.2 |
| | (0.5) | (1.18) | (0.199) | (0.61) | (0.5) | (0.78) | (0.201) | (0.3) |

| | Infra | Infra | Wage | Wage | Infra | Infra | Wage | Wage |
|---|---|---|---|---|---|---|---|---|
| Debt Service | -0.034* | -0.029+ | 0.0607*** | 0.059*** | | | | |
| | (0.015) | (0.016) | (0.0098) | (0.010) | | | | |
| Debt Service Above Target | | | | | -0.97 | -0.82 | 2.05*** | 1.95*** |
| | | | | | (0.90) | (0.96) | (0.46) | (0.47) |
| MP Strength * Debt Service | | 0.063 | | -0.018 | | | | |
| | | (0.071) | | (0.040) | | | | |
| MP Strength * Debt Service Above Target | | | | | | 2.8 | | -1.9 |
| | | | | | | (4.4) | | (1.7) |
| Light Value | -0.016 | -0.015 | 0.484*** | 0.484*** | -0.049 | -0.049 | 0.534*** | 0.533*** |
| | (0.043) | (0.043) | (0.025) | (0.025) | (0.041) | (0.041) | (0.025) | (0.025) |
| Ruling | -0.075 | -0.05 | 0.069 | 0.062 | -0.062 | -0.032 | 0.053 | 0.033 |
| | (0.220) | (0.22) | (0.098) | (0.098) | (0.220) | (0.222) | (0.101) | (0.101) |
| Copper Price | -0.0007 | -0.00056 | 0.00897*** | 0.00893*** | 0.00068 | 0.0007 | 0.00652*** | 0.00650*** |
| | (0.0016) | (0.00155) | (0.00081) | (0.00081) | (0.00151) | (0.0015) | (0.00069) | (0.00069) |
| R2 | 0.239 | 0.240 | 0.777 | 0.777 | 0.237 | 0.238 | 0.770 | 0.771 |
| Num.Obs. | 1806 | 1806 | 1806 | 1806 | 1806 | 1806 | 1806 | 1806 |
| Constituency Effects | Y | Y | Y | Y | Y | Y | Y | Y |

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

## 8.5 Copper Prices

Copper is a significant revenue earner for Zambia, and changing prices have a similar effect of shifting the government's budget constraint. I test whether they have an interact effect, and find similar results. To align with above visualizations, I flip the sign of copper price, so that increases are interpreted as a drop in government budget.

When copper prices drop, weak MPs receive lower infrastructure allocation, while strong MPs are protected. For wages, lower copper prices decrease allocations across the board.

Table 6: Copper Prices

| | Infrastructure | Infrastructure | Wage | Wage |
|---|---|---|---|---|
| MP Strength | 1.4** | 7.7* | -0.1 | -1.1 |
| | (0.5) | (3.4) | (0.2) | (1.1) |
| Copper | -0.00089 | 0.00025 | -0.00599*** | -0.00616*** |
| | (0.00152) | (0.00175) | (0.00071) | (0.00076) |
| MP Strength * Copper | | 0.021* | | -0.0032 |
| | | (0.011) | | (0.0038) |
| Light Value | -0.037 | -0.035 | 0.500*** | 0.499*** |
| | (0.040) | (0.040) | (0.026) | (0.026) |
| Ruling | -0.087 | -0.096 | 0.116 | 0.117 |
| | (0.217) | (0.218) | (0.099) | (0.099) |
| Interest Rate | 0.17 | 0.15 | -0.405*** | -0.402*** |
| | (0.11) | (0.11) | (0.047) | (0.047) |
| R2 | 0.238 | 0.241 | 0.776 | 0.776 |
| Num.Obs. | 1806 | 1806 | 1806 | 1806 |
| Constituency Effects | Y | Y | Y | Y |

| | Infrastructure | Infrastructure | Wage | Wage |
|---|---|---|---|---|
| + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001 | | | | |

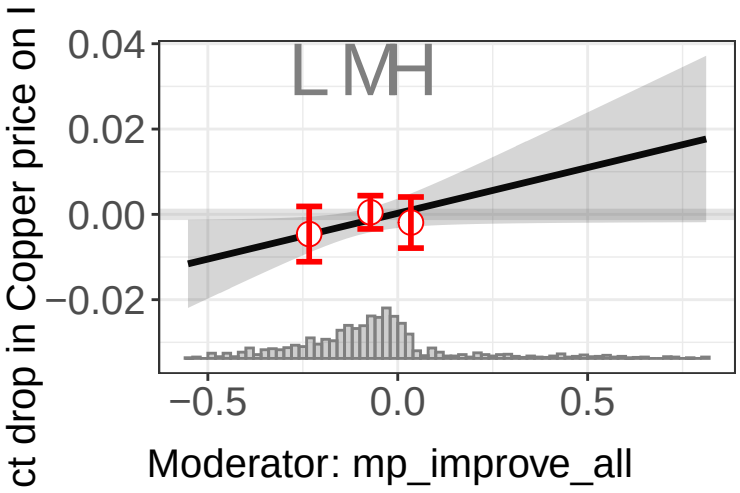



Figure 10: Marginal Effect of Rising Copper prices on Infrastructure Spending

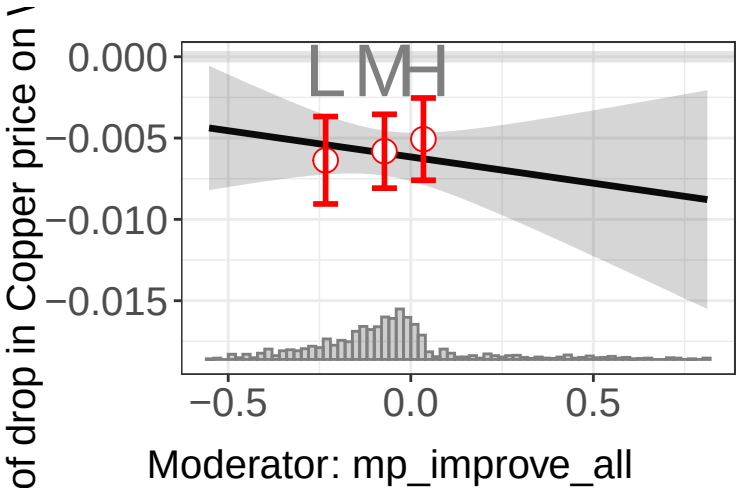



Figure 11: Marginal Effect of Rising Copper prices on Wage Spending

### 8.6 Descriptive statistics

Figure 12 shows the levels of wage spending across constituencies. There is significant variation, with both increases and decreases (const ZMW) over time. Spending jumps in 2013

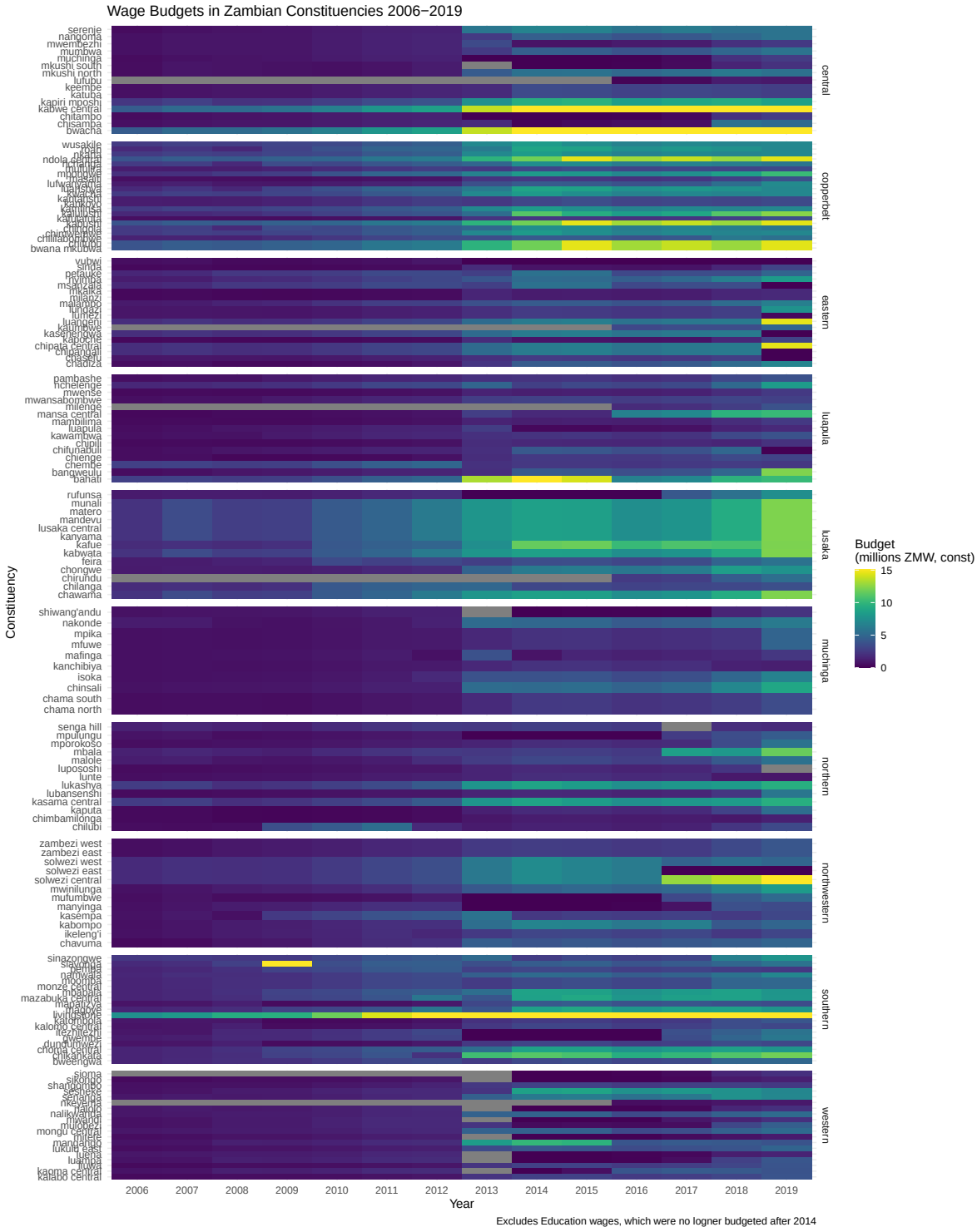



Figure 12: Wage Spending by Unit

when Michael Sata greatly increased salaries in the civil service, including doubling the minimum wage. Spending is highest in the Copperbelt, as well as provincial capitals. Spending for Lusaka is lower because district level spending is divided across urban Lusaka's seven constituencies[9]. For ease of visualization, I cap the top 1% of observations.

Is there a time trend in MP Strength? Not really, they average slightly below zero, suggesting that overall, presidents are more popular than MPs Figure 13. Margins spike after the 2015 presidential by-election, when Lungu just barely kept office, increasing the relative 'strength' of many MPs. Otherwise, margins are fairly constant across time.

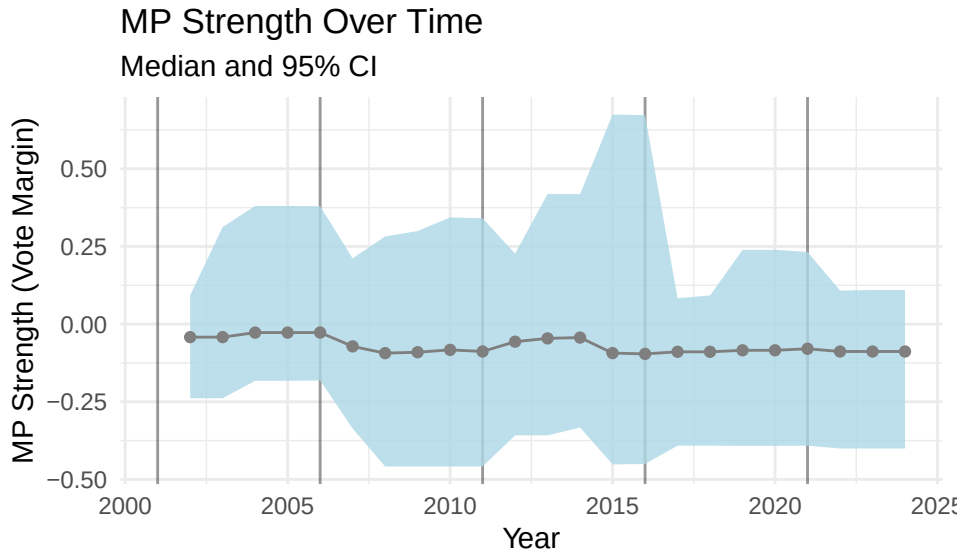



Figure 13

## 8.7 Interaction Diagnostics

The diagnostic plots show the bivariate relationship between the independent and the dependent variables across groups of the moderator (see Hainmueller, Mummolo, and Xu 2019). In this case, I show the relationship between borrowing costs and spending for weak, medium, and strong MPs. In line with my expectations, the slopes change across groups, affirming an interactive data generating process. Figure 14 shows the results for infrastructure spending. The first panel is flat, suggesting no relationship for weak MPs, but the slope steepens for medium and strong MPs.

Conversely, Figure 15 shows the impact of raising rates on wage spending in different bins of MP Strength. Once again, the relationship for the weakest MPs (left) is flat, but is steeper for stronger MPs. In this case, the slope is negative rather than positive.

[9]I also exclude spending on national institutions headquarted in Lusaka.

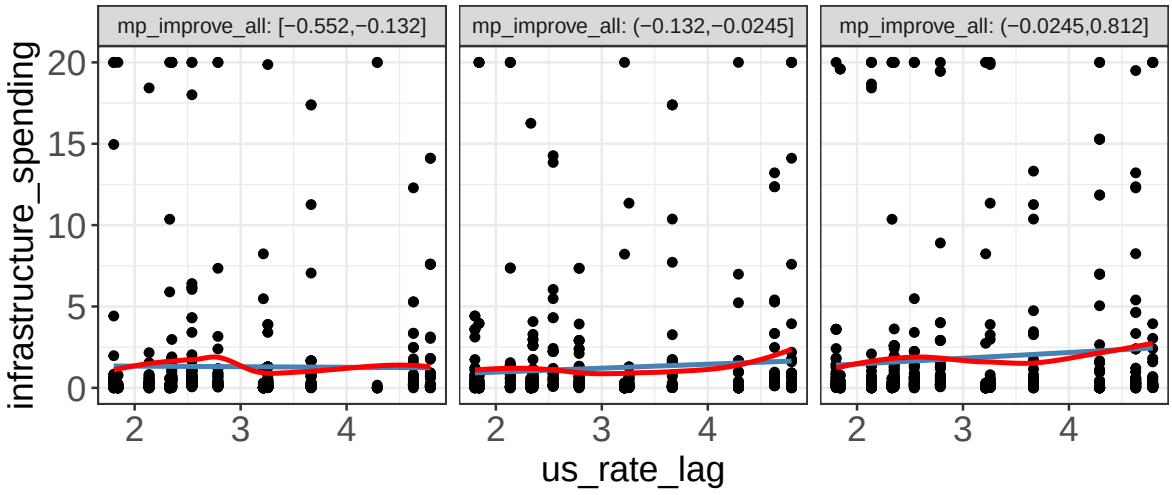



Figure 14

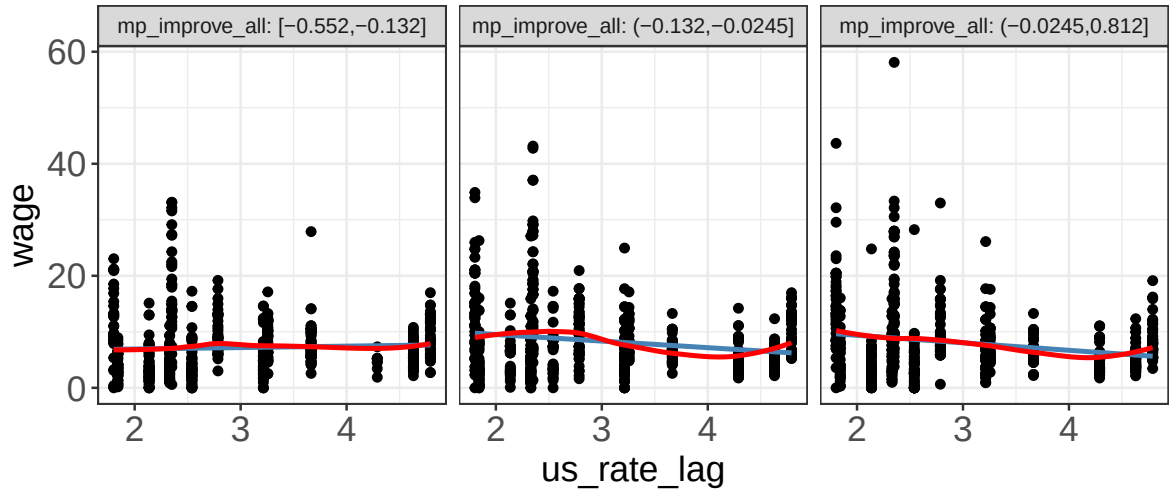



Figure 15

### 8.8 Kenya Wage Results

Rising rates are associated with decreased wage spending, with no variation between county alignment.

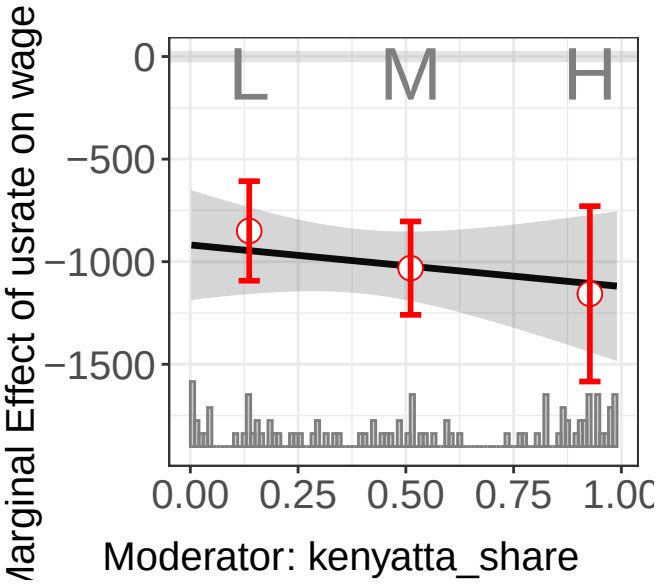



Figure 16

## References


Adebanwi, Wale, and Rogers Orock. 2021. *Elites and the Politics of Accountability in Africa*. Ann Arbor, MI: University of Michigan Press. https://doi.org/10.3998/mpub.11628987.

Albertus, Michael. 2013. "Vote Buying With Multiple Distributive Goods." *Comparative Political Studies* 46 (9): 1082–1111. https://doi.org/10.1177/0010414012463897.

Arriola, Leonardo R. 2009. "Patronage and Political Stability in Africa." *Comparative Political Studies* 42 (10): 1339–62. https://doi.org/10.1177/0010414009332126.

Baldwin, Kate. 2014. "When Politicians Cede Control of Resources: Land, Chiefs, and Coalition-Building in Africa." *Comparative Politics* 46 (3): 253–71. https://doi.org/10.5129/001041514810943036.

Banda, Tinenenji, O'Brien Kaaba, Marja Hinfelaar, and Muna Ndulo, eds. 2020. *Democracy and Electoral Politics in Zambia*. Afrika-Studiecentrum Series, volume 40. Leiden ; Boston: Brill.

Bates, Robert H. 1981. *Markets and states in tropical Africa: the political basis of agricultural policies /Robert H. Bates.*. –. California series on social choice and political economy. Berkeley: University of California Press.

Bleck, Jaimie, and Nicolas van de Walle. 2013. "Valence Issues in African Elections: Navigating Uncertainty and the Weight of the Past." *Comparative Political Studies* 46 (11): 1394–1421. https://doi.org/10.1177/0010414012453448.

Blimpo, M. P., R. Harding, and L. Wantchekon. 2013. "Public Investment in Rural Infrastructure: Some Political Economy Considerations." *Journal of African Economies* 22 (suppl 2): ii57–83. https://doi.org/10.1093/jae/ejt015.

Bob-Milliar, George M. 2012. "Party Factions and Power Blocs in Ghana: A Case Study of Power Politics in the National Democratic Congress." *The Journal of Modern African Studies* 50 (4): 573–601. https://doi.org/10.1017/S0022278X12000481.

Bomprezzi, Pietro, Axel Dreher, Andreas Fuchs, Teresa Hailer, Andreas Kammerlander, Lennart C. Kaplan, Silvia Marchesi, Tania Masi, Charlotte Robert, and Kerstin Unfried. 2024. "Wedded to Prosperity? Informal Influence and Regional Favoritism." *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.4748017.

Boone, Catherine. 2024. *Inequality and Political Cleavage in Africa: Regionalism by Design*. Cambridge Studies in Comparative Politics. Cambridge: Cambridge University Press. https://www.cambridge.org/core/books/inequality-and-political-cleavage-in-africa/F224A9681A591EDF6C4FA11199B5A972.

Boone, Catherine, Michael Wahman, Stephan Kyburz, and Andrew Linke. 2022. "Regional Cleavages in African Politics: Persistent Electoral Blocs and Territorial Oppositions." *Political Geography* 99 (November): 102741. https://doi.org/10.1016/j.polgeo.2022.102741.

Bowles, Jeremy, and Benjamin Marx. n.d. "Turnover and Accountability in Africa's Parliaments." https://doi.org/10.2139/ssrn.4642554.

Brambor, Thomas, William Roberts Clark, and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis* 14 (1): 6382.

Briggs, Ryan C. 2014. "Aiding and Abetting: Project Aid and Ethnic Politics in Kenya." *World*

*Development* 64 (December): 194–205. https://doi.org/10.1016/j.worlddev.2014.05.027.

———. 2021. "Power to Which People? Explaining How Electrification Targets Voters Across Party Rotations in Ghana." *World Development* 141 (May): 105391. https://doi.org/10.1016/j.worlddev.2021.105391.

Burgess, Robin, Remi Jedwab, Edward Miguel, Ameet Morjaria, and Gerard Padró i Miquel. 2015. "The Value of Democracy: Evidence from Road Building in Kenya." *American Economic Review* 105 (6): 1817–51. https://doi.org/10.1257/aer.20131031.

Cheeseman, Nic, Karuti Kanyinga, Gabrielle Lynch, Mutuma Ruteere, and Justin Willis. 2019. "Kenya's 2017 Elections: Winner-Takes-All Politics as Usual?" *Journal of Eastern African Studies* 13 (2): 215–34. https://doi.org/10.1080/17531055.2019.1594072.

Choi, Dong-Hyun. 2018. "Severed Connections: Political Parties and Democratic Responsiveness in Sub-Saharan Africa." PhD thesis. https://escholarship.org/uc/item/3388n6qr.

Cormier, Ben. 2024. *How Governments Borrow: Partisan Politics, Constrained Institutions, and Sovereign Debt in Emerging Markets*. Oxford, New York: Oxford University Press.

Cormier, Ben, and Natalya Naqvi. 2023. "Delegating Discipline: How Indexes Restructured the Political Economy of Sovereign Bond Markets." *The Journal of Politics* 85 (4): 1501–15. https://doi.org/10.1086/723997.

Cormier, Ben, and Patrick E Shea. 2025. "Global Finance, Political Business Cycles, and the Politics of Foreign Reserves." *International Studies Quarterly* 69 (3). https://academic.oup.com/isq/article/doi/10.1093/isq/sqaf050/8173439.

Cox, Gary W. 2010. "Swing Voters, Core Voters, and Distributive Politics." In, edited by Ian Shapiro, Susan C. Stokes, Elisabeth Jean Wood, and Alexander S. Kirshner, 1st ed., 342–57. Cambridge University Press. https://doi.org/10.1017/CBO9780511813146.015.

Díaz Cayeros, Alberto, Beatriz Magaloni Kerpel, and Federico Estevez. 2016. *The Political Logic of Poverty Relief: Electoral Strategies and Social Policy in Mexico*. Cambridge Studies in Comparative Politics. New York, NY: Cambridge University Press. https://doi.org/10.1017/CBO9781316492710.

Dixit, Avinash, and John Londregan. 1996. "The Determinants of Success of Special Interests in Redistributive Politics." *The Journal of Politics* 58 (4): 1132–55. https://doi.org/10.2307/2960152.

Ejdemyr, Simon, Eric Kramon, and Amanda Lea Robinson. 2018. "Segregation, Ethnic Favoritism, and the Strategic Targeting of Local Public Goods." *Comparative Political Studies* 51 (9): 1111–43. https://doi.org/10.1177/0010414017730079.

Golden, Miriam, and Brian Min. 2013. "Distributive Politics Around the World." *Annual Review of Political Science* 16 (1): 73–99. https://doi.org/10.1146/annurev-polisci-052209-121553.

Gottlieb, Jessica, Guy Grossman, Horacio Larreguy, and Benjamin Marx. 2019. "A Signaling Theory of Distributive Policy Choice: Evidence from Senegal." *The Journal of Politics* 81 (2): 631–47. https://doi.org/10.1086/701833.

Greenhill, Romilly, Annalisa Prizzon, and Andrew Rogerson. 2016. "The Age of Choice: Developing Countries in the New Aid Landscape." In, edited by Stephan Klingebiel, Timo Mahn, and Mario Negre, 137–51. London: Palgrave Macmillan UK. https://doi.org/10.1057/978-1-137-55357-7_10.

Hainmueller, Jens, Jonathan Mummolo, and Yiqing Xu. 2019. "How Much Should We Trust Estimates from Multiplicative Interaction Models? Simple Tools to Improve Empirical Practice." *Political Analysis* 27 (2): 163–92. https://doi.org/10.1017/pan.2018.46.

Hallink, Courtney, and Hangala Siachiwena. 2023. "Political Party Ideology in Zambia: Comparing the PF and the UPND on Social Welfare Policies." *The Journal of Modern African Studies* 61 (3): 323–42. https://doi.org/10.1017/S0022278X23000058.

Harding, Robin. 2015. "Attribution And Accountability: Voting for Roads in Ghana." *World Politics* 67 (4): 656–89. https://doi.org/10.1017/S0043887115000209.

Harris, J. Andrew, and Daniel N. Posner. 2019. "(Under What Conditions) Do Politicians Reward Their Supporters? Evidence from Kenya's Constituencies Development Fund." *American Political Science Review* 113 (1): 123–39. https://doi.org/10.1017/S0003055418000709.

Hern, Erin. 2019. *Developing States, Shaping Citizenship: Service Delivery and Political Participation in Zambia*. Ann Arbor, MI: University of Michigan Press. https://doi.org/10.3998/mpub.9989603.

Horowitz, Jeremy. 2019. "Ethnicity and the Swing Vote in Africa's Emerging Democracies: Evidence from Kenya." *British Journal of Political Science* 49 (3): 901–21. https://doi.org/10.1017/S0007123417000011.

Kabir, Mabruk. 2023. "Teachers for All 2023." https://www.unicef.org/innocenti/media/3636/file/Teachers-For-All-Zambia-2023.pdf.

———. 2025. "Teachers for All Report 2025: Zambia 2025." https://www.unicef.org/innocenti/media/10551/file/UNICEF-Innocenti-Teachers-for-All-Zambia-Report-2025.pdf.

Kasara, Kimuli. 2007. "Tax Me If You Can: Ethnic Geography, Democracy, and the Taxation of Agriculture in Africa." *American Political Science Review* 101 (1): 159–72. https://doi.org/10.1017/S0003055407070050.

Khan, Mushtaq. 2017. "Political Settlements and the Analysis of Institutions." *African Affairs* 117: 636–55. https://doi.org/10.1093/afraf/adx044.

Kim, Eun Kyung. 2017. "Party Strategy in Multidimensional Competition in Africa: The Example of Zambia." *Comparative Politics* 50 (1): 21–39. https://www.jstor.org/stable/26330972.

———. 2018. "Sector-Based Vote Choice: A New Approach to Explaining Core and Swing Voters in Africa." *International Area Studies Review* 21 (1): 28–50. https://doi.org/10.1177/2233865917742066.

Kramon, Eric, and Daniel N. Posner. 2013. "Who Benefits from Distributive Politics? How the Outcome One Studies Affects the Answer One Gets." *Perspectives on Politics* 11 (2): 461–74. https://doi.org/10.1017/S1537592713001035.

Lasswell, Harold Dwight. 1936. *Politics: who gets what, when, how*. Chicago: Papamoa Press.

Li, Xuecao, Yuyu Zhou, Min Zhao, and Xia Zhao. 2020. "A Harmonized Global Nighttime Light Dataset 1992–2018." *Scientific Data* 7 (1): 168. https://doi.org/10.1038/s41597-020-0510-y.

Lipset, Seymour Martin, and Stein Rokkan. 1967. *Party systems and voter alignments: cross-national perspectives. [Contributors: Robert R. Alford and others]*. New York: Free Press.

Madimutsa, Clever, Royd Malisase, Evans Daka, and Moses Chewe. 2021. "Public Sector Reform and the Introduction of Neoliberal Capitalism in African Socialist States: The Case of Zambia." *Review of Radical Political Economics* 53 (3): 462–77. https://doi.org/10.1177/04866134211008188.

Malik, Rabia. 2021. "(A)Political Constituency Development Funds: Evidence from Pakistan." *British Journal of Political Science* 51 (3): 963–80. https://doi.org/10.1017/s0007123419000541.

Manger, Mark S., Ben Cormier, and Jacob Winter. 2026. "Paving the Road to Power: Global Financial Constraints and Fiscal Policy in Developing Democracies." *Working Paper*.

Manger, Mark S., David Mihalyi, Ugo Panizza, Niccolò Rescia, Christoph Trebesch, and Ka Lok Wong. 2025. "Africa's Domestic Debt Boom: Evidence from the African Debt Database." CEPR Discussion Paper 20747. Discussion Paper. Centre for Economic Policy Research (CEPR). https://cepr.org/publications/dp20747.

Mason, Nicole M., Thomas S. Jayne, and Nicolas van de Walle. 2017. "The Political Economy of Fertilizer Subsidy Programs in Africa: Evidence from Zambia." *American Journal of Agricultural Economics* 99 (3): 705–31. https://doi.org/10.1093/ajae/aaw090.

Meltzer, Allan, and Scott Richard. 1981. "A Rational Theory of the Size of Government." *Journal of Political Economy* 89 (5): 914–27.

Miranda-Agrippino, Silvia, and Hélène Rey. 2020. "U.S. Monetary Policy and the Global Financial Cycle." *The Review of Economic Studies* 87 (6): 2754–76. https://doi.org/10.1093/restud/rdaa019.

Mkandawire, Thandika. 2016. "Colonial Legacies and Social Welfare Regimes in Africa: An Empirical Exercise." Geneva.

Mosley, Layna, Victoria Paniagua, and Erik Wibbels. 2020. "Moving Markets? Government Bond Investors and Microeconomic Policy Changes." *Economics & Politics* 32 (2): 197–249. https://doi.org/10.1111/ecpo.12150.

Opalo, Ken Ochieng'. 2019. *Legislative Development in Africa: Politics and Postcolonial Legacies*. Cambridge University Press.

Pepinsky, Thomas B. 2018. "Visual Heuristics for Marginal Effects Plots." *Research & Politics*, 1–9. https://doi.org/doi.org/10.1177/2053168018756668.

Posner, Daniel N. 2005. *Institutions and Ethnic Politics in Africa*. 1st ed. Cambridge University Press. https://doi.org/10.1017/CBO9780511808661.

Resnick, Danielle. 2022. "How Zambia's Opposition Won." *Journal of Democracy* 33 (1): 70–84. https://doi.org/10.1353/jod.2022.0005.

Rey, Hélène. 2015. "Dilemma Not Trilemma: The Global Financial Cycle and Monetary Policy Independence." Cambridge, MA. https://doi.org/10.3386/w21162.

Riedl, Rachel Beatty. 2016. "Strong Parties, Weak Parties: Divergent Pathways to Democracy in Sub-Saharan Africa." In, edited by Deborah J. Yashar and Nancy Bermeo, 122–56. Cambridge Studies in Contentious Politics. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781316661581.005.

Robinson, James, and Thierry Verdier. 2013. "The Political Economy of Clientelism." *Scandinavian Journal of Economics* 115 (2): 260–91. https://doi.org/10.1111/j.1467-9442.2013.12010.x.

Schady, Norbert R. 2000. "The Political Economy of Expenditures by the Peruvian Social Fund (FONCODES), 1991–95." *American Political Science Review* 94 (2): 289–304. https://doi.org/10.2307/2586013.

Seekings, Jeremy. 2022. "Incumbent Disadvantage in a Swing Province: Eastern Province in Zambia's 2021 General Election." *Journal of Eastern African Studies* 16 (4): 576–99. https://doi.org/10.1080/17531055.2023.2233728.

Sishuwa, Sishuwa. 2024. *Party Politics and Populism in Zambia: Michael Sata and Political Change, 1955-2014*. Rochester, NY: James Currey.

———. 2025. "Floor Crossing and the Motivations of Members of Parliament in Zambia, 1991–2016." *Journal of Southern African Studies* 0 (0): 1–22. https://doi.org/10.1080/03057070.2024.2458407.

Stokes, Susan C. 2005. "Perverse Accountability: A Formal Model of Machine Politics with Evidence from Argentina." *American Political Science Review* 99 (3): 315–25. https://doi.org/10.1017/S0003055405051683.

Stokes, Susan C., Thad Dunning, Marcelo Nazareno, and Valeria Brusco. 2013. *Brokers, Voters, and Clientelism: The Puzzle of Distributive Politics*. Cambridge Studies in Comparative Politics. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781107324909.

Wibbels, Erik. 2006. "Dependency Revisited: International Markets, Business Cycles, and Social Spending in the Developing World." *International Organization* 60 (2): 433468. https://doi.org/10.1017/S0020818306060139.

Winter, Jacob. 2025. "Loaded Questions: Global Liquidity and the Legislative Agenda in Zambia." *Dissertation Chapter*.

Zeitz, Alexandra O. 2024. "The Financial Statecraft of Borrowers," December. https://doi.org/10.1017/9781009475075.