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Development Finance and Distributive Politics: Comparing Chinese and World Bank Finance in sub-Saharan Africa

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ABSTRACT

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Academic literature has dedicated limited attention to the subnational allocation of development finance. The limited literature has highlighted the role of donor interests and regime type in foreign finance allocation. In this paper, I examine both factors using geocoded data on China and the World Bank's grant and loan flow to 48 African countries from 2000 to 2012. In contrast to most of the existing empirical research, I found that the more democratic a regime is, the more likely co-ethnic regions of the incumbent leader are to receive development finance. I then focus on case studies of elections in a hybrid regime, Zambia, and an autocratic regime, Ethiopia. The core argument is that domestic politics play a bigger role than donors' conditionality in the subnational distribution of development finance. The widespread competitive clientelism in many African countries puts more political survival pressure on democratic leaders to target their co-ethnic regions, while autocratic leaders only need to secure the support of a small circle of elites. This research has broader implications for understanding how political competition feeds clientelism in weak institutions.

INTRODUCTION

When development finance becomes available to weak states, which parts of the state will receive the windfall gains? Existing literature shows that development finance does not always reach the people who need it the most, both within and across countries. Political scientists and economists have made many efforts in explaining this from both the donors' and recipient countries' perspectives.[1] However, when do donors' preferences play a more important role in shaping the subnational distribution of development finance, and when do domestic politics matter more? Few have examined the two variables together. These questions are important because they have broader implications as to the root causes of unequal access to public goods, a principal roadblock to inclusive development.

In this research, I focus on the distributive politics of development finance in 48 countries in Africa, the region with the highest number of aid-dependent countries.[2] In most African countries, development budgets are far smaller than the financial gap facing infrastructure construction and rehabilitation. The more aid-dependent the case country is, the bigger the role development finance may play in the state's financial resources and its' ability to deliver public goods and services. This regional focus is due to the high importance of development finance both to African countries and the international aid communities.

I examine how donors' preferences and recipient countries' regime types affect the subnational distribution of development finance. Regarding the financier type, I compare the top two largest single financiers of Africa's infrastructure projects: the World Bank and China. Between 2014 and 2017, China made financial commitments worth US$ 27.8 billion to improve Africa's transportation infrastructure, while the World Bank committed US$ 11.3 billion to the initiative.[3] The two financiers may have different impacts on foreign finance distribution because the World Bank's funding is less likely to be manipulated by local politicians than China's funding, which attaches little conditionality on disbursement due to China's non-interference based foreign policy. Moreover, this comparison will have implications for the competition between Washington and Beijing-dominated development models in an increasingly multipolar world order. As for the regime type, I am interested in whether countries facing different levels of democracy may react differently in their use of development finance for geographical targeting. Regime types may matter in distributive politics because leaders with different bases of winning coalitions may demonstrate different political behaviors.[4]

Noting this, my research questions are: Is the World Bank's finance to more democratic regimes in Africa less likely to be captured by leaders for geographical targeting and political favoritism? How about China's finance? I first review relevant literature before delving into a large-N regression analysis of Chinese and World Bank development finance in 48 African countries between 2000 and 2012. After my preliminary large-N analysis, I conduct an in-depth case-study analysis of the subnational distribution of Chinese and World Bank finance in two countries during election years: Zambia and Ethiopia. While Zambia is largely considered a hybrid regime that has experienced intensive party competition during presidential elections, Ethiopia is an autocratic regime that has been led by one party since 1991. Although it would be ideal to add another country case that represents the most democratic regime in Africa, I only included one autocratic and one hybrid regime due to the limitation of this article's scale.

Building on the previous literature on the demand-driven nature of Chinese finance in Africa, the main contribution of my empirical study is two-fold. First, democracy may not always help prevent clientelism but may actually facilitate it under weak institutions. Second, domestic political competition matters more than the external conditionalities set by donors in determining the subnational distribution of foreign aid. While the World Bank's conditionality may insulate development finance from being captured by elites for ethnic favoritism in some cases, this effect disappears when domestic political competition increases. Under the mounting pressure for political survival, elites face a much shorter time horizon in policymaking and may be willing to take more risks in manipulating development finance as a resource for vote-buying and credit claiming.

LITERATURE REVIEW

Past literature has generally examined determinants of development finance allocation from both the supply side—donors' conditionality and political preferences—and the demand side—the recipient countries' domestic politics. The literature shows mixed and seemingly contradictory findings regarding the impacts of financiers' conditionality and democracy on the subnational allocation of foreign finance.

The source of funding affects development finance allocation and effectiveness. Earlier research has shown that membership of the OECD Development Assistance Committee (DAC), donors' regime type, and foreign policy may account for development finance allocation. Dreher *et al*. compared bilateral aid between non-DAC and DAC donor countries.[5] They argued that non-DAC donors do not favor less corrupt and more democratic recipient countries compared to DAC donors. However, Bermeo shows that on average, development finance from democratic donors is significantly associated with an increase in the likelihood of democratization, while aid from authoritarian donors shows a negative relationship with the democratic transition.[6] Similar to Bermeo's argument, political aid cycle literature also reveals that G7 donors provide aid incentives for the foreign policy alignment of recipient countries in the UN General Assembly.[7] Multilateral financial institutions, such as the World Bank, also increase disbursement speed for investment loans for recipient governments whose geopolitical interests align with those of the United States.[8]

Due to a lack of data, however, it was not until recently that researchers have started to compare China with traditional donors in their patterns of development finance allocation. Dreher *et al*. utilized geocoded data on the subnational distribution of Chinese and World Bank finance, arguing that African leaders largely allocate China's official finance to their birth regions to improve their chances of staying in power.[9] In contrast, they argue that it is harder for politicians to manipulate World Bank-financed projects, which have a relatively stringent set of project appraisal procedures. China's non-interference policy imposes little conditionality for loan disbursement, and this may make its finance more demand-driven than the World Bank's finance. Isaksson and Kotsadam matched AidData with the Afrobarometer survey and found that more widespread local corruption existed around active China-financed project sites in comparison with areas where a Chinese project will be initiated but not yet implemented.[10] Furthermore, Bonfatti and Poelhekke contend that 83 percent of China-financed road and rail projects in Africa follow an interior-to-coast shape, connecting the interior of a country to the coast, instead of strengthening intra-country transportation.[11] They contend that this strengthens the pattern of the colonial transport networks, which were designed primarily to export natural resources from mines to ports.

While the aforementioned literature focuses on explanations from the supply side of development finance—donors—other researchers examine determinants of development finance allocation from the demand side: the institutional structures of the recipient countries. Empirical research shows that income inequality, regime type, as well as ethnic and political favoritism may account for differences in subnational development finance allocation.

First, even within developing countries, richer communities tend to receive more aid. Briggs finds that within countries, foreign finance disproportionately flows to wealthier regions.[12] Similarly, Francken *et al*. find that after the cyclone Gafilo hit Madagascar, many nonaffected richer communes received UN humanitarian aid, while some poorer affected communes did not receive any relief.[13] They explain that allocation patterns were due to the rich areas' ability to develop response mechanisms and better infrastructure, which could have facilitated relief operations. Tang and Shen also found that urban and rich households in Ghana benefited more than their rural and poorer counterparts from the China-financed Bui Dam in terms of access to electricity.[14] Similarly, Eichenauer *et al*. find that after the 2015 Nepal earthquake, the UN flash appeals and the subsequent financing of humanitarian aid projects were mostly distributed to municipalities with a higher proportion of upper castes and strongholds of the two major parties.[15] This lack of need orientation shows that donors are either unwilling or unable to ensure that their aid is targeted to maximize the welfare of the public.

Second, ethnic or political favoritism often plays a role in development finance allocation. Given that all politicians want first and foremost to stay in office, subnational distribution of aid is driven by their electoral advantage.[16] To achieve political survival, they may disproportionally distribute aid as patronage to constituencies with high vote shares for the incumbent or those sharing the same ethnicity as the incumbent.[17] Aid allocation becomes a vote-buying mechanism for politicians to claim credit.[18] This ethnic favoritism is particularly salient in Africa given its colonial history. The colonial states' rule relied on their alliance with local African Native Authorities to collect tax revenue. Europeans demarcated ethnically defined administrative units, and over time, the political authority of ethnic communities took shape based on patron-client networks that determined resource distribution in African states. Political and economic competition over limited resources then further accentuate ethnic tribalism. This personalistic, state-society synergy remains in postcolonial states, penetrating all institutions from the grass root to the pinnacle of state power—the presidents and their cabinet members—who largely decide where the state resources are spent.[19]

Third, regime type and coalition politics may affect development finance delivery. Democratic leaders are more incentivized to distribute public goods and services fairly and inclusively because the size of their winning coalition is larger. In contrast, autocratic politicians tend to only award political resources to their relatively smaller winning coalitions.[20] Montinola also argues that the effectiveness of conditional aid depends on recipient countries' levels of democracy.[21] Moreover, Hodler and Raschky find that democracy prevents ethnic and regional favoritism because democratic institutions hold leaders accountable for public welfare improvement.[22] Furthermore, Harding and Stasavage argue that Africa's democratic transition prompts governments to provide more verifiable public goods and services to their citizens.[23]

Although most of the literature finds that a higher level of democracy is correlated with less geographical targeting using public resources, some research shows that this may not hold in Africa, where the democratization wave in the 1990s only led to fiercer competition for the limited public resources due to ethnic diversity and the persistence of patrimonialism.[24] As a result, the transition from a one-party to a multi-party system resulted in more ethnic voting buying and political manipulation of ethnic identities.[25] Using the Demographic and Health Survey (DHS) program data in 18 African countries over 50 years, Franck and Rainer argue that ethnic favoritism is more prevalent in democracies than in autocracies because democratic leaders need broader political support, and the pressure of multiparty elections may provide strong incentives for them to distribute more public goods to their co-ethnics.[26] In contrast, autocratic leaders' political survival only depends on the loyalty of a small circle of military officers and political allies. Therefore, dictators do not need to constantly provide benefits to the ordinary people of their ethnic groups under the rule of "quid pro quo".[27] In one of the most successful cases of Africa's democratization—Ghana—elites agreed to donors' pro-poor conditionality to have access to development finance but, once approved, allocated these funds in a way that increased the existing regional inequality due to competitive clientelist political settlement.[28]

The mixed and seemingly contradictory findings from the previous research show that we still know little about whether donors' conditionality matters and whether democracy facilitates the equitable distribution of foreign finance. Given that development finance distribution is influenced by factors on both the donors' and the recipients' sides, it is necessary to study their interactions to understand the domestic distribution of Chinese and World Bank finance in countries of different regime types. The outcome of subnational development finance allocation results from the equilibrium of the dynamic interactions between donors and recipients. A focus on only one side of the story falls short in showing the complex causal mechanisms underpinning development finance allocation. My research seeks to bridge international and comparative political economy by examining how domestic actors respond differently to various changes in the international economy.

DATA AND RESEARCH DESIGN

I merged two databases to test whether there is a significant difference between the geographical targeting of Chinese and World Bank finance in countries with different levels of democracy. A summary of the descriptive statistics is shown in Table 1.

The first dataset is the georeferenced district-level data of Chinese and World Bank projects in 48 African countries between 2000 and 2012 coded by Dreher *et al*.[29] This panel dataset includes the total amount of Chinese and World Bank finance in US$ at the first (ADM1) and second (ADM2) subnational levels in each year. I use these as my key dependent variables. I follow Bellemare and Wichman in taking the inverse hyperbolic sine transformation of levels of Chinese and World Bank current development finance flows, which yields two new variables, such that:

$$China_{aid\_asinh} = \text{arcsinh}(China_{aid\_flows}) = \ln(China_{aid\_flows} + \sqrt{(China_{aid\_flows}{}^2 + 1)} \quad \textbf{(1)}$$

$$WB_{aid\_asinh} = \text{arcsinh}(WB_{aid\_flows}) = \ln(WB_{aid\_flows} + \sqrt{(WB_{aid\_flows}{}^2 + 1)} \quad \textbf{(2)}$$

In this way, I can retain the zero-valued observations, which would be lost if I only took the log of these variables given that ln(0) is undefined.[30]

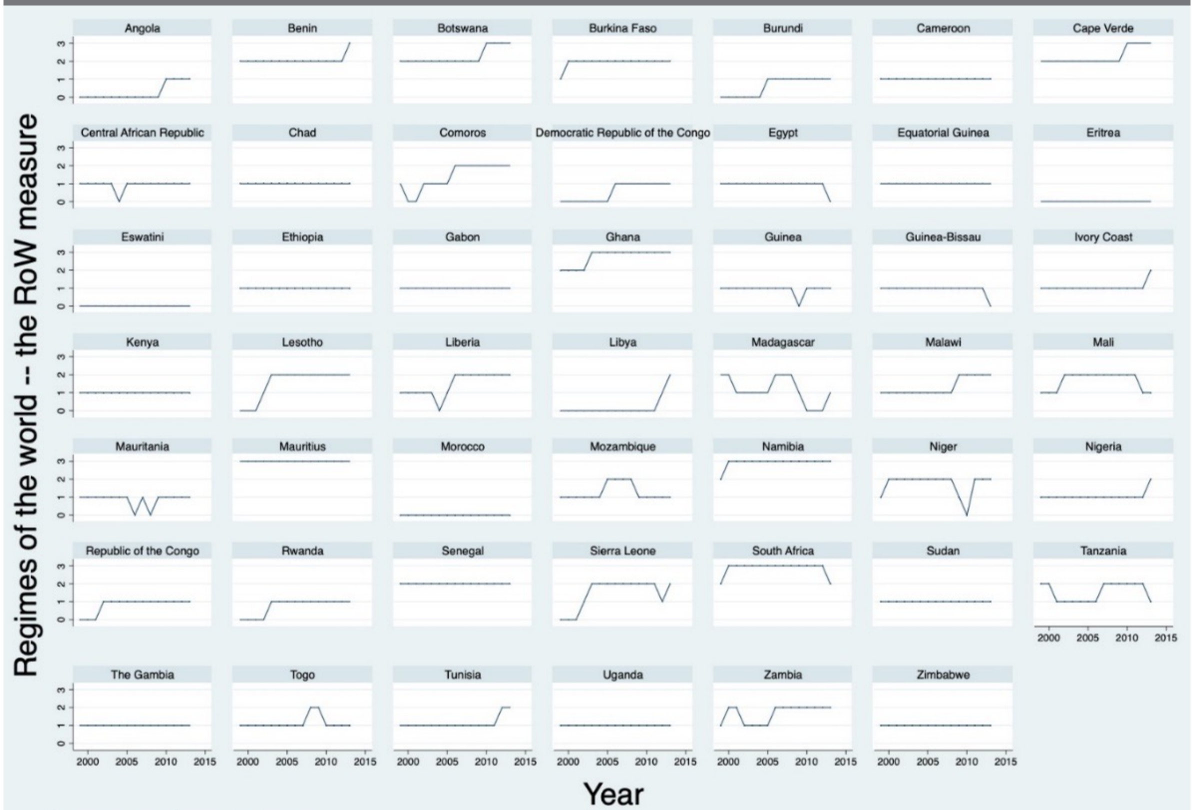
Moreover, based on the ethnic identification of the Geo-Referencing of Ethnic Groups (GREG) project, Dreher *et al*.'s dataset include a dummy variable (Coethnic district) that equals one if the ADM1-level district shares the same ethnic origin as the country's leader at the time.[31] Furthermore, this dataset also includes variables indicating preexisting regional features relevant to the likelihood that a district may receive development finance: the average nighttime light intensity in 2000 (Light2000); the population in 2000 (Population2000); whether this district produces oil and gas (Oilgas); whether the region belongs to the capital city (Capitalregion); whether this district has a port (Ports); the log of the sum of mineral facilities in each district (Mines); the total length of roads per square kilometer (Roaddensity); and the log of the geographical size (Area) of a district calculated through its shapefile. Previous literature shows that a district is more likely to receive foreign-financed projects if it is urban, resource-rich, populous, and has already developed some transportation infrastructure.

I measure each of the 48 African countries' levels of democracy using the second database: the Varieties of Democracy (V-Dem) index.[32] The V-Dem Institute, headquartered at the University of Gothenburg in Sweden, covers 202 countries from 1789 to 2019 in the latest version of its dataset. Different from traditional democracy indices such as the Polity score and Freedom House, V-Dem data constructs a set of indices to measure the components of democracy, particularly the five high-level principles of democracy: electoral, liberal, participatory, deliberative, and egalitarian. These indices are continuous variables ranging from zero to one, measured by taking the weighted average of democracy-related indices and aggregated at the country-year level. In addition to the five democracy indices, I include a categorical variable aggregated through the electoral and liberal democracy indices: regimes of the world (RoW). The RoW equals zero for closed autocracy, one for electoral autocracy, two for electoral democracy, and three for liberal democracy.[33] Figure 1 shows the change in each country's regime type by year. Given that the RoW scores of 15 out of the 48 countries do not change over the sample years, my variation of regime types for these countries may be limited to the country level.

Table 1: Descriptive Statistics

	Count	Mean	Standard Deviation	Min	Max
WB aid total flows (levels)	7,705	4,329,577.5	31,967,031.8	0	1.26428e + 09
China aid total flows (levels)	7,593	6,403,482.2	71,724,413.6	0	1,891,581,382
Regimes of the world	7,770	1.30	0.71	0	3
Electoral democracy index	7,770	0.42	0.17	0.069	0.85
Liberal democracy index	7,770	0.28	0.18	0.0050	0.78
Participatory democracy index	7,770	0.24	0.12	0.0090	0.58
Deliberative democracy index	7,770	0.32	0.18	0.017	0.81
Egalitarian democracy index	7,770	0.27	0.14	0.047	0.71
Regime corruption	7,770	0.70	0.22	0.12	0.97
Presidentialism index	7,770	0.52	0.27	0.060	0.99
Clientelism index	7,770	0.63	0.19	0.18	0.94
Capital region	7,705	0.082	0.27	0	1
Oil/Gas	7,705	0.086	0.28	0	1
Coethnic district	7,705	0.12	0.32	0	1
Ports	7,705	0.12	0.32	0	1
Road density	7,675	0.13	0.12	0	0.72
Area (logs)	7,675	9.28	1.76	3.60	14.1
Mines (logs)	7,705	0.56	0.99	0	5.82
Population2000 (levels)	7,699	1,338,219.2	4,142,495.6	0	66,556,420
Light2000 (levels)	7,699	1.03	5.48	0	63.1

Figure 1: The Regime of the World Indicator by Country and Year



To test whether the geographical targeting of Chinese and World Bank finance is different in African countries with different regime types, my main estimation function is seen below in Equations 3 and 4.

$$Aid\_asinh_{ict} = \partial_c + \delta_t + \beta_1 Coethnic_{ict} + \Sigma_j \gamma_j X^j_{ic} + \epsilon_{ict} \qquad (3)$$

$$Aid\_asinh_{ict} = \partial_c + \delta_t + \beta_2\, Coethnic_{ict} * RoW_{ct} + \delta Coethnic_{ict} + \theta RoW_{ct} + \Sigma_j \gamma_j X^j_{ic} + \epsilon_{ict} \qquad (4)$$

where Aid_asinh_{ict} represents the inverse hyperbolic sine transformation of the levels of Chinese and World Bank current development finance flows to district i in country c at year t; ∂_c a country fixed effect; δ_t a year fixed effect; $Coethnic_{ict} * RoW_{ct}$ an interaction between the dummy variable of coethnic district i in country c in year t and the categorical variable RoW of country c in year t; X^j_{ic} the sets of time-invariant control variables; and ϵ_{ict} an error term. My main outcomes of interest are the coefficients β_1 and β_2: β_1 captures the difference between coethnic and non-coethnic regions of all regime types, while β_2 represents the difference in difference between coethnic and non-coethnic regions of various regime types.

Given that my observations may not be independent of one another, I also clustered my analysis at the country-year level. After running these main regressions, I also substitute the categorical RoW variable to the five continuous variables of democracy: the electoral, liberal, participatory, deliberative, and egalitarian democracy indices.

REGRESSION RESULTS

Table 2 shows the estimation results of Equation 3. Both Chinese and World Bank finance are more likely to be distributed to political leaders' coethnic regions. The likelihood of Chinese finance allocation being subject to ethnic favoritism is nearly twice that of the World Bank. On average, compared to development finance in non-coethnic regions, China's current finance flow to a coethnic region is 106 percent higher, while the World Bank's finance flow to a coethnic region is 52 percent higher. This means that the World Bank's more stringent conditionality in development finance disbursement may help alleviate, but not eradicate, ethnic favoritism across all regimes. Besides, capital cities, wealthier districts with higher average nighttime light intensity, and geographically larger districts all witness a significant increase in the amount of Chinese and World Bank finance they receive. While China's finance seems to favor regions with more mineral facilities, World Bank finance increases significantly in port regions.

Table 2: Ethnic Favoritism Across All Regime Types

	(1) China_aid_asinh	(2) WB_aid_asinh
Coethnic	1.059*** (4.86)	0.519* (2.20)
Light2000 (in logs)	0.198*** (4.16)	0.351*** (5.21)
Population2000 (in logs)	0.0414 (0.84)	0.209** (2.78)
CapitalRegion	4.287*** (11.90)	2.209*** (7.65)
Mines (in logs)	0.259** (2.73)	0.104 (0.98)
Oil/Gas	-0.242 (-0.96)	0.103 (0.29)
Area (in logs)	0.126* (2.50)	0.312*** (3.92)
Ports	0.136 (0.56)	0.637* (2.13)
RoadDensity	0.732 (0.80)	1.253 (0.97)
Constant	-0.803 (-1.81)	-3.126*** (-5.17)
Country-Year FX	Yes	Yes
Observations	7,553	7,665

Notes: *t* statistics in parantheses
(*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$)

Table 3 shows the results of Equation 4, which examines the difference in difference between coethnic and non-coethnic regions across various regime types. The closed autocracy was omitted due to collinearity. In comparison with coethnic regions in a closed autocracy, the amount of World Bank current development finance flows to coethnic regions in an electoral autocracy, electoral democracy, and liberal democracy are on average 16.3, 194.4, and 255.3 percent higher, respectively.[34] Similarly, compared to a closed autocracy, the amount of Chinese current finance flows to coethnic regions in electoral autocracy and liberal democracy is 137 and 321 percent greater, respectively.[35] I did not find a significant result on Chinese finance to coethnic regions in electoral democracy. In other words, the more democratic a country is, the more likely that both Chinese and World Bank finance will be distributed to regions whose majority of the population shares the same ethnicity as the incumbent leaders.

Table 3: Regime of the World (RoW)

	(1) China	(2) WB
Electoral Autocracy x Coethnic = 1	1.406* (2.17)	1.446* (2.44)
Electoral Democracy x Coethnic = 1	-0.153 (-0.21)	3.227*** (4.34)
Liberal Democracy x Coethnic = 1	3.253** (2.88)	3.836*** (3.62)
Electoral Autocracy	-0.281 (-1.01)	1.326** (2.75)
Electoral Democracy	0.737* (2.02)	1.708** (2.77)
Liberal Democracy	0.437 (0.77)	0.0267 (0.03)
Coethnic = 1	-0.0401 (-0.07)	-1.283* (-2.53)
Light2000 (in logs)	0.191*** (4.18)	0.345*** (5.34)
Population2000 (in logs)	0.0283 (0.59)	0.212** (2.93)
CapitalRegion	4.442*** (13.02)	2.250*** (8.08)
Mines (in logs)	0.297** (3.22)	0.111 (1.08)
Oil/Gas	-0.176 (-0.74)	0.210 (0.62)
Area (in logs)	0.130** (2.69)	0.305*** (4.01)
Ports	0.0730 (0.33)	0.624* (2.22)
RoadDensity	0.901 (1.102)	0.966 (0.78)
Constant	-1.711*** (-3.32)	-6.216*** (-7.87)
Country FE	Yes	Yes
Year FE	Yes	Yes
Observations	7,553	7,665

Notes: *t* statistics in parantheses, clustered at the country-year level
(**p* < 0.05, ***p* < 0.01, ****p* < 0.001)

My results are similar to Dreher *et al.*'s in that it confirms their findings in leaders' geographical targeting of coethnic regions in allocating Chinese finance.[36] However, using their same dataset, I show that ethnic favoritism in the subnational allocation of World Bank finance is also prevalent across all regimes, and is more severe in more democratic regimes. Although Dreher *et al.* also include regression of an interaction term between leaders' birth region dummy and the Polity score, they did not find significant results.[37] My interaction shows that the influence of ethnic origins may be more pronounced than that of birth origins in explaining Africa's political favoritism across different regime types.

CASE STUDIES

In this section, I will use Zambia and Ethiopia as case studies to elaborate on the relationship between political competition and ethnic favoritism in the distribution of development finance. I chose the two countries because both attract a large amount of Chinese and World Bank grants and loans, and higher number of samples translates to more observable events. Moreover, the intensity of political competition in the two countries is different.

Zambia transitioned from a one-party regime to a multi-party system in 1991 and experienced a party turnover from the Movement for Multiparty Democracy (MMD) to the Patriotic Frontier (PF). Other Zambian parties, such as the United Party for National Development (UPND), have also gained substantial popular votes in recent years. In contrast, Ethiopia has had a de-facto one-party regime led by the Ethiopian People's Revolutionary Democratic Front (EPRDF) since 1991.[38] The winning margin of the incumbent over the opposition party in Zambia is much smaller than that in Ethiopia, as seen in Tables 4 and 5. Additionally, both countries are characterized by ethnic diversity and political constituencies are often times constructed around ethnic identities. The power base of the central government is often ethicized.[39] This salience of ethnic politics in both countries provides more opportunities to test whether the distribution of development finance is also largely determined by ethnic favoritism. The following sections will show that the distributional pattern of foreign finance in Zambia and Ethiopia fits the regression results in my

Table 4: Zambia's Presidential Elections between 2000 - 2020

Election year	Winning margin vs. biggest opposition party (as % of vote)	Winning party	Incumbent party	Notes
2001	1.95	MMD	MMD	-
2006	13.61	MMD	MMD	-
2008	1.99	MMD	MMD	Unscheduled presidential elections due to President Mwanamasa's death
2011	6.7	PF	MMD	-
2015	1.68	PF	PF	Presidential by-election due to President Sata's death in 2015
2016	2.72	PF	PF	-

Data Source: Author's calculations based on data from EISA, 2021.[40]

Table 5: Ethiopia's House of People's Representatives Elections between 2000 - 2020

Election year	EPRDF share of the vote (%)
2000	87.93
2005	60
2010	91.22
2015	91.59

Data Source: EISA, 2021.

preliminary statistical model. Although it is ideal to conduct four country cases that respectively correspond to the four regime types in my large-N analysis, I only include two cases here due to the limitation of the scale of this research paper.

Given that a presidential election marks the peak of each country's political competition, I focus on the distribution of Chinese and World Bank grants and loans at the subnational level during two presidential election periods in each country. Because the lion share of China's grants and loans to Ethiopia and Zambia take place in the 2010s, I chose Zambia's 2011, 2015, and 2016 presidential elections as well as Ethiopia's House of People's Representatives elections in 2010 and 2015. While previous quantitative research only looked at the election year, I considered a three-year election to be more accurate in evaluating the impacts of elections on domestic development finance distribution.[41] By including the year before and after the election, I could observe if candidates started vote-buying during their campaigns, before the election, or shortly after the election. The only exception is Zambia's 2011 election, for which I only look at two years: 2010 and 2011. This is because the former incumbent party MMD lost the 2011 election and could no longer determine development finance distribution in 2012. A summary of the case studies is listed in Table 6.

Table 6: Case Studies

Country	Elections	Research period
Zambia	2011	2010-2011
	2015 & 2016	2014-2017
Ethiopia	2010	2009-2011
	2015	2014-2016

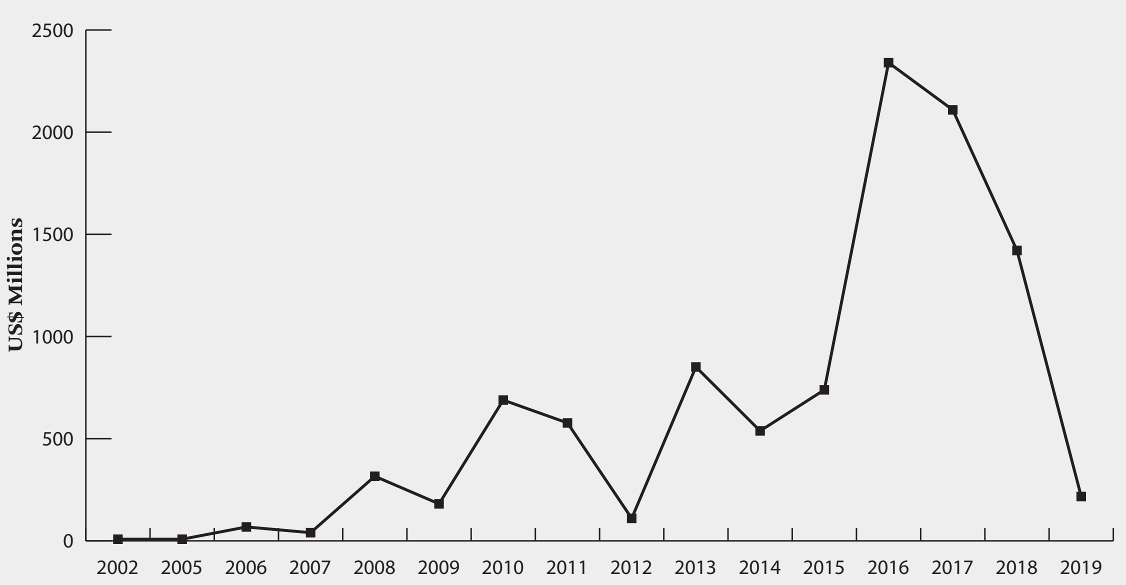
Using the SAIS-CARI China-Africa loan database and the World Bank project database, I constructed a novel database recording the number of loans and grants each of the 10 Zambian provinces and the 11 Ethiopian regions received during the selected election periods.[42] I read through project overviews in the SAIS-CARI database and World Bank project documents to pin down the geographical location of these projects, with the help of Google Maps and other open-source web searches. Given that the ethnolinguistic groups in Zambia and Ethiopia are mostly distributed along administrative provinces or regions, I used the largest subnational administrative unit of each country as the unit of analysis. I did not use Dreher *et al.*'s database constructed through AidData because it only covered the period between 2000 and 2012.[43] Moreover, using the SAIS-CARI and World Bank data in small-N comparative case studies could help triangulate my empirical results in the large-N studies using AidData. Regarding the foreign-financed projects that are directed nationwide, I evenly divide the total amount of the cost of those projects to each Ethiopian region or Zambian province.

ZAMBIA

Zambia transitioned from a one-party to a multi-party system in the early 1990s and since then has shifted between electoral autocracy and electoral democracy. President Kenneth Kaunda lost the 1991 election to MMD leader, Frederick Chiluba. Although the MMD promised the Zambian people a more inclusive constitution that transcends above partisan interests and curtails executive power, it retreated from these promises to prioritize partisan interests over democratic consolidation. In 2008, when MMD President Mwanawasa died while in office, the MMD party chose an electorally unpopular candidate, Rupiah Banda, which further fractured the increasingly fragmented party. This led to a party turnover and the PF's electoral victory in the 2011 election.[44] By employing a populist strategy to cater to urban residents and at the same time obtain support from rural ethnic-regional communities, the PF candidate Michael Sata attracted a broad range of supporters, including many MMD cadres from the Northern and Luapula provinces.[45] However, the return of a democratic turnover in 2011 did not lead to institutional consolidation. During the elections in 2015 and 2016, PF President Lungu used political violence against opposition parties and state resources for his campaign.[46] Zambia's weak party system made democratic consolidation difficult. Parties are often fluid and lack funding, institutionalization, and ideological cohesion.[47] Political parties' weak internal unity and institutionalization is exacerbated by intense inter-party competition, leading to extensive use and reliance on an ethnic strategy and patronage for incumbents to exercise political control.

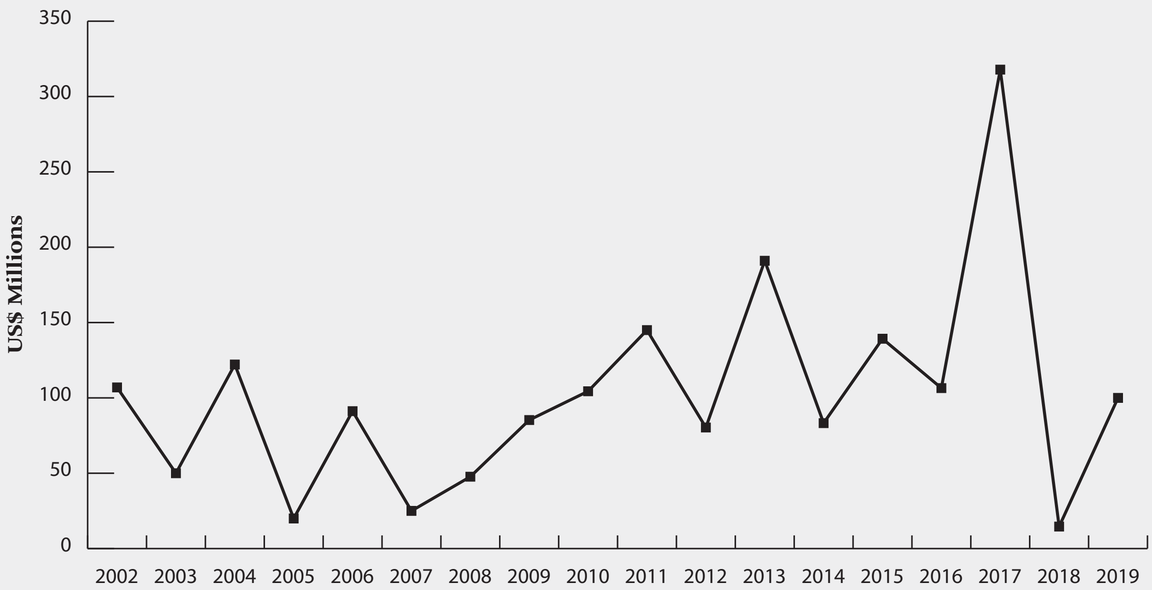
To test whether Zambian leaders actively used development finance for patronage when political competition increased, I first looked at the amount of Chinese and World Bank annual loan and grant inflows to Zambia by year from 2002 to 2019. While there may have been other instances, as Figure 2 and 3 reveal, the spikes in the total amount of China's finance inflow to Zambia in 2006, 2008, 2010, 2013, 2015, 2016, and 2017 are roughly aligned with the timing of presidential elections in 2006, 2008, 2011, 2015, and 2016. Regarding the World Bank's finance, the peak inflow years are less synchronized with election years than China's finance, but still show a significant increase in the 2008, 2011, and 2015 election years. A simple correlation test shows that the coefficient of correlation between China's annual finance inflow to Zambia's election year is 0.16,

Figure 2: China's Loans and Grants to Zambia, 2002 to 2019 (in US$ Millions)



Source: SAIS-CARI data and author's calculations.

Figure 3: World Bank's Loans and Grants to Zambia, 2002 to 2019 (in US$ Millions)



Source: World Bank Project and author's calculations.

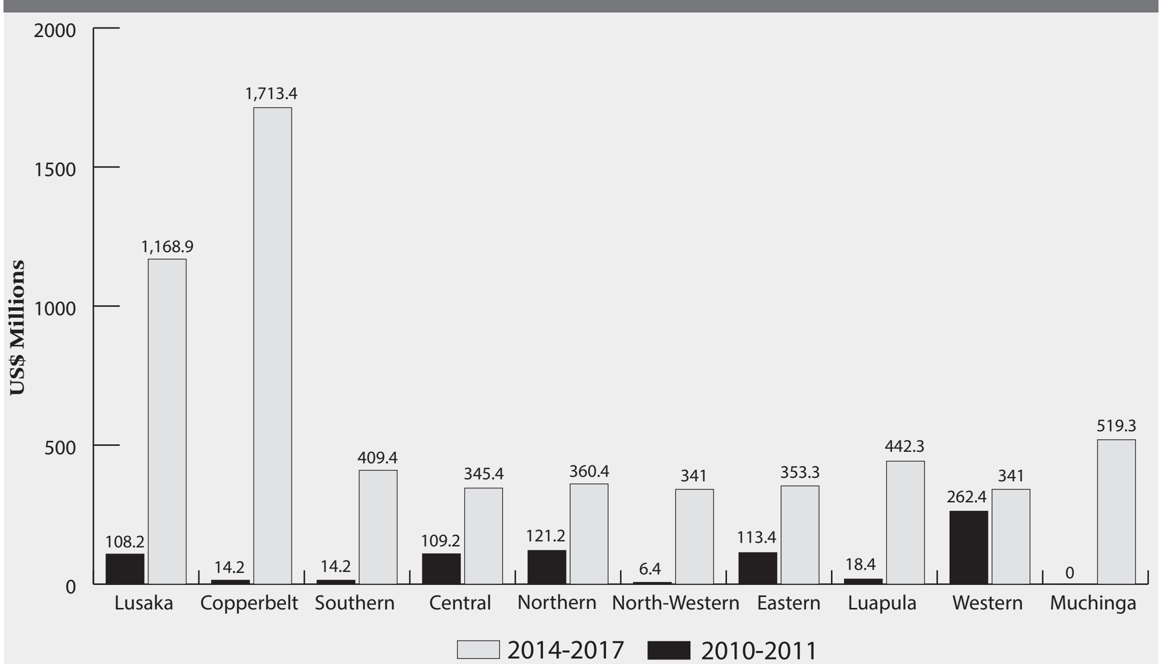
and that of the World Bank's is 0.04, but neither has a significant P-value. This may imply that annual development finance flows to Zambia are positively correlated with election years, but the correlation is not statistically significant.

A further examination of the subnational distribution of China and the World Bank's loans during the 2011, 2015, and 2016 elections reveals more potential ethnic favoritism in development finance allocation. Figure 4 shows that, during 2010 and 2011, the Western, Northern, Eastern, and Central provinces received most of China's finance, while Copperbelt, the country's economic epicenter where the rate of return might be the highest, only received a marginal share of China's finance. For example, the biggest loan in the Western province, the US$ 244 million Mongu-Tapo section of the Mongu-Kalabo road, was launched in 2010 by the MMD government. With a contract distance of only 34 kilometers, it was one of the most expensive roads per kilometer in the world—costing roughly 60 billion Zambian Kwacha per kilometer, while building a tarred road in the rest of Zambia costs on average 5 billion Kwacha per kilometer.[48] This finding can be corroborated by Raballand *et al.*'s conclusion that the Western, Northern, and Eastern provinces attracted the lion share of the Zambian Road Development Agency's commitments to new roads between 2008 and 2011.[49] The incumbent MMD President Banda won over 50 percent of the votes in the Eastern, Western, Central, and North-Western provinces but only 32 percent in the Copperbelt during his 2008 election.[50] Thus, the seemingly economically irrational allocation of Chinese finance during the 2010 to 2011 election might be explained by MMD leaders' political rationality in exchange for political loyalty. The subnational distribution of World Bank finance during 2010 to 2011 seems to be less distorted toward the co-ethnic regions of the then incumbent President Banda, with the Central, Southern, Copperbelt provinces, and Lusaka getting most of the World Bank's finance allocation.

The competition between the incumbent and opposition parties in the 2015 and 2016 elections was much more intense than in the 2011 election, as the winning margins of PF President Lungu over the opposition party were only 1.68 and 2.72 percent of the national votes.[51] Research has disclosed the PF's use of vote-buying, manipulation of state media ZNTV, and political violence during this period.[52] Largely decided within the Office of President, Zambia's move to borrow heavily from China funded the PF's pro-poor policies initiated by President Sata, whose electoral success could be largely attributed to his appeal to rural ethnic-regional communities. The rural development plan was further implemented by PF President Lungu through the drastic increase of spending on rural electrification, rehabilitation of rural roads, and construction of rural water supply and health facilities.[53] Around 40 percent of the cost of Zambia's rural road development comes from external funding. For example, in 2018, the China Eximbank overtook the Zambian government's road fund, becoming the top source of funding for the annual budget.[54]

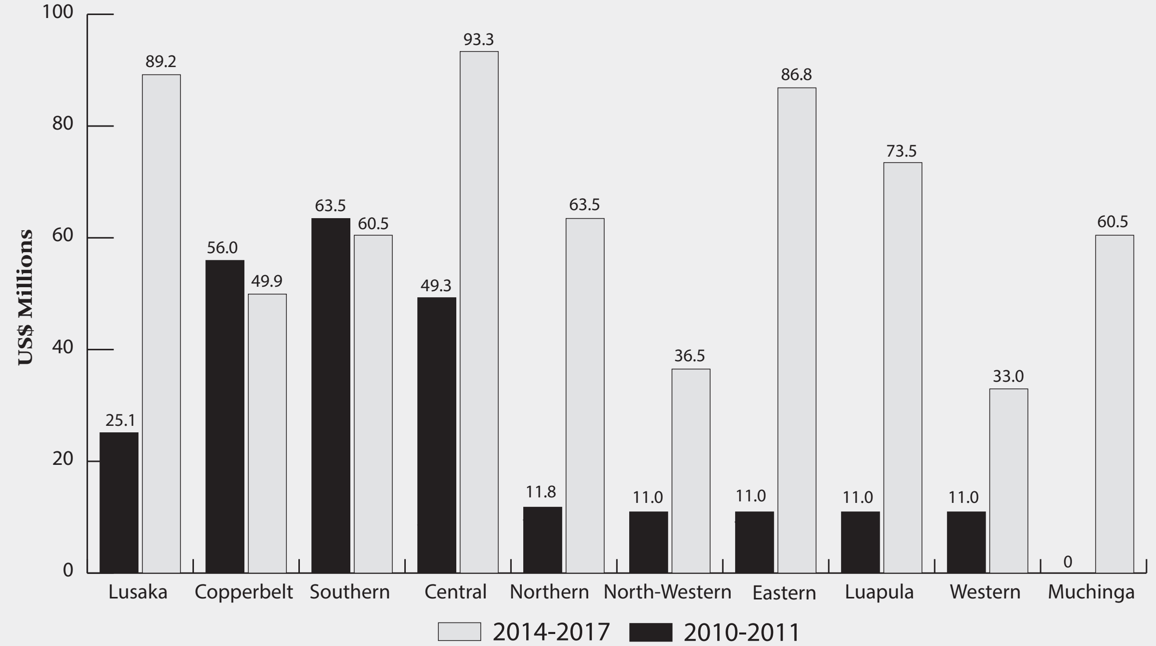
The increased manipulation of domestic or external resources for political survival can also be observed from the allocation of both Chinese and World Bank finance. From 2014 to 2017, a period that includes both the 2014 and 2015 elections, most of China's finance was allocated to Lusaka, the Copperbelt, Muchinga, and Luapula provinces. These provinces are dominated by the Bemba and Nyanja-speaking populations, the ethnolinguistic strongholds supporting the PF's rule.[55] According to the 2010 Zambian Census, the Bemba group accounts for 83.9 percent, 71.3 percent, and 46.9 percent of the total population in the Copperbelt, Luapula, and Muchinga provinces, respectively, while the Nynja-speaking group represents 61.9 percent of Lusaka's population.[56] Similarly, as Figure 5 shows, the World Bank's finance to Zambia is mostly directed to Lusaka, the Central, Eastern, Luapula, Northern, and Muchinga provinces, where Bemba and Nyanja-speaking groups represent a significant share of the population. The increasing alignment

Figure 4: China's Loans and Grants to Zambia by Province, During Election Periods (in US$ Millions)[57]



Source: SAIS-CARI and author's research.

Figure 5: World Bank Loans & Grants to Zambia by Province, in Election Periods (in US$ Millions)



Source: World Bank Project Database and author's research.

of subnational distribution of World Bank finance with the incumbent party's ethnic-regional strongholds may be explained by the increasing political competition and mounting pressure on elites to secure political loyalty.

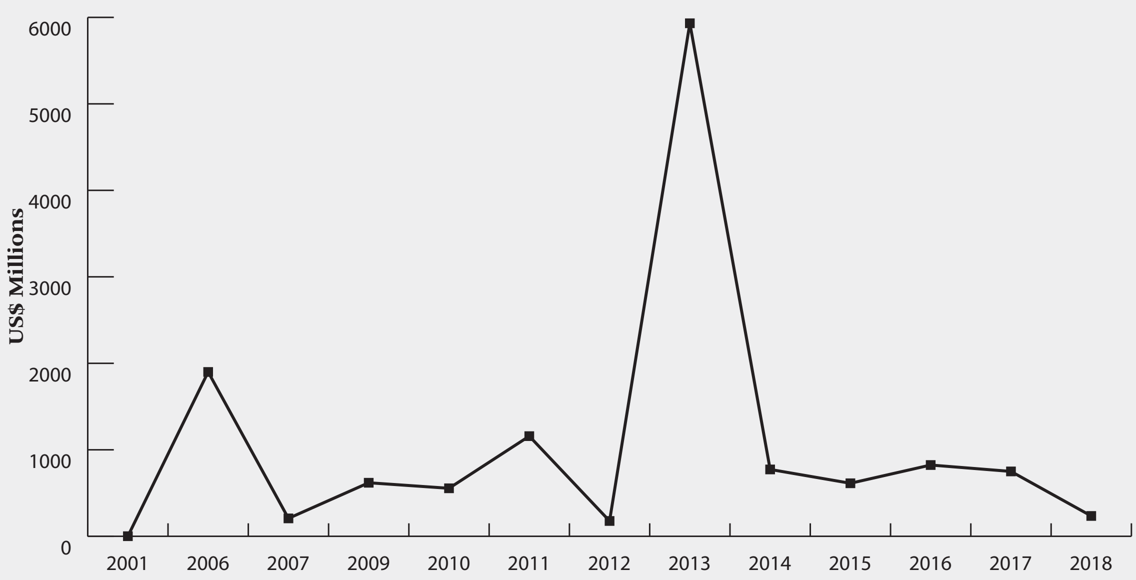
ETHIOPIA

In contrast to Zambia, where intensive multiparty competition and the increasingly narrow winning margins in presidential elections has forced elites to develop a very short policymaking time horizon, Ethiopia has been a *de facto* one-party state since the EPRDF took power in 1991. Although the EPRDF was built on a *de jure* multiethnic coalition that used ethnic-based federalism to justify its legitimacy, the Tigray People's Liberation Front (TPLF) elites, represented by Prime Minister Meles Zelewi, had controlled the key executive committee roles of the EPRDF before the Oromo politician Abiy Ahmed became the Prime Minister in 2018. In 2015, the EPRDF won 100 percent of the House of Peoples' Representatives seats, for the first time since its rise to power in 1991. This marked a full-swing hardening of authoritarian rule in Ethiopia by sending a message that despite the unexpected death of Meles in 2012, the EPRDF remains the only authority regulating access to public office from the top down.[58]

With little political competition, the delivery of public goods and services, economic growth, and attraction of FDI are designed to only reinforce the EPRDF's popular legitimacy and ideology, rather than winning over swing voters or ethnic strongholds.[59] This is evident by looking at the annual inflow of Chinese and World Bank loans and grants. The total amount of Chinese finance to Ethiopia does not seem to have irregular spikes during the 2005, 2010, and 2015 election years. The only irregular spike in Chinese finance inflow was in 2013 when Ethiopia signed a US$ 2.5

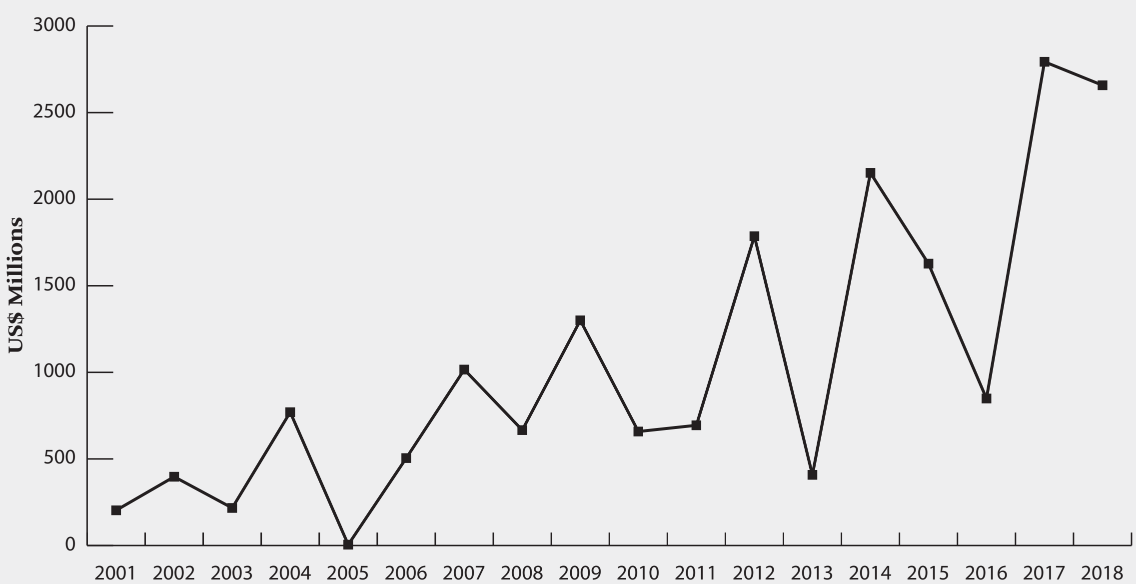
billion Addis-Djibouti Railway loan contract with the China Eximbank. Similarly, the World Bank's annual finance to Zambia did not follow along the 2005, 2010, and 2015 election cycle. The steady increase in World Bank finance to Zambia, mostly in infrastructure sectors, is largely due to Ethiopia's stellar economic growth in the last decade. The World Bank wants to make Ethiopia an example of structural transformation.

Figure 6: China's Loans and Grants to Ethiopia, 2001 to 2018 (in US$ Millions)[60]



Source: SAIS-CARI data and author's calculations.

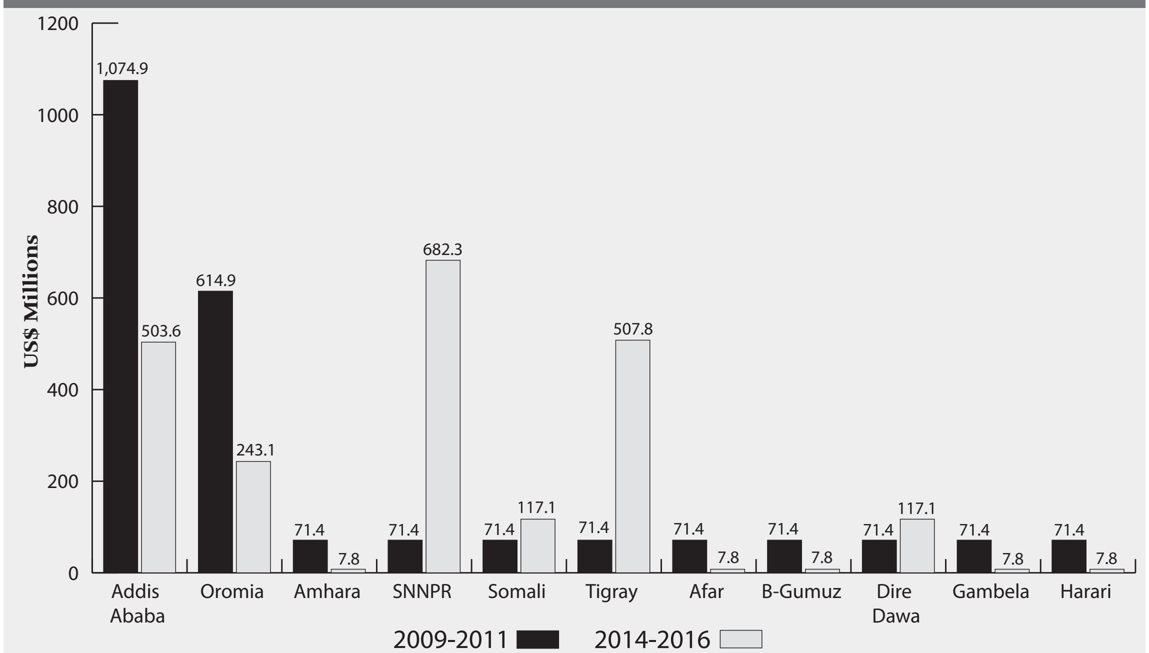
Figure 7: World Bank's Loans and Grants to Ethiopia, 2001 to 2018 (in US$ Millions)



Source: World Bank Project and author's calculations.

The variation of annual development finance inflow does not show much alignment with the election cycles. A further breakdown of the subnational allocation of development finance also does not show clear signs that the Tigray region, the co-ethnic region of the political leader, received substantially more loans. Most of China's finance to Ethiopia during the 2009 to 2011 election is directed to Addis Ababa and the Oromia region, the most populous Ethiopian state, as shown in Figure 8. Most of the Chinese loans and grants around the 2010 election seemed to aim at boosting the electricity and water supply of urban Addis Ababa as well as increasing the connectivity between the capital city and Adama city, a transportation hub only 99 kilometers away from Addis Ababa. The US$ 475 million Addis Ababa light rail built during this period may be the only potential white elephant project, as critics believe the cost outweighs the returns.[61] Similarly, the World Bank's finance allocation does not show a clear pattern of ethnic favoritism, as most projects during 2009 to 2011 focus on improving basic social services and safety nets in rural Ethiopia, which is anywhere outside Addis Ababa. Figure 9 shows that the Amhara and Oromia regions attracted most of the World Bank's finance, possibly because of their large rural populations.

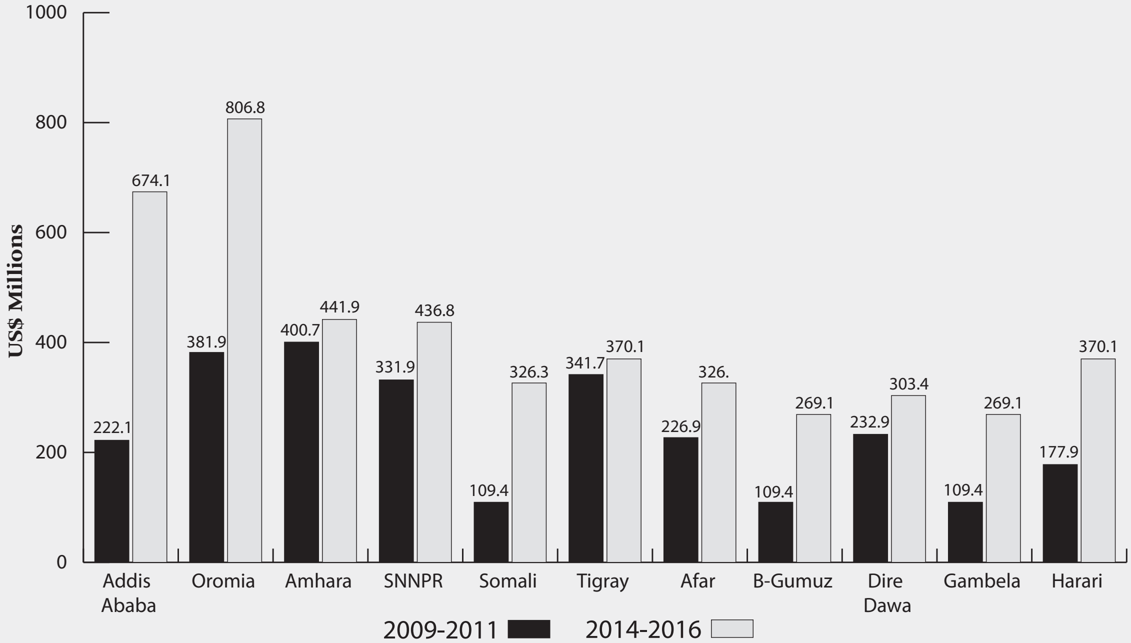
Figure 8: China's Loans & Grants to Ethiopia by Province, in Election Periods (in US$ Millions)[63]



Source: SAIS-CARI data and author's research.

Regarding the 2014 to 2016 election period, most regions other than Addis Ababa and Oromia still attracted little Chinese finance, except for the Tigray and the Southern Nations, Nationalities, and People's Region (SNNPR). The development finance inflows went primarily to two sugar plants—the US$ 500 million Welkait Sugar Mill in the Tigray region and the US$ 550 million Omo-Kuraz Sugar Factory in the SNNPR. However, this may not be evidence of ethnic favoritism, because the development of the sugar industry is a key part of the EPRDF's broader plan to eliminate dependence on sugar imports.[62] Given that a sugar plant can only be in a large area of suitable lowlands, Addis Ababa and Oromia, which are largely highlands, cannot accommodate sugar plants. Similarly, there is no sign that the World Bank's finance between 2014 and 2016 had clear regional or ethnic targeting of the co-ethnic

Figure 9: China's Loans & Grants to Ethiopia by Province, in Election Periods (in US$ Millions)



Source: World Bank Project Database and author's research.

Tigray region, with Oromia, Addis Ababa, Amhara, and SNNPR representing the largest share of the World Bank's finance allocation. These projects are broad-based geographically and mostly targeted to improve governance as well as rural and urban service delivery.

In summary, the subnational allocation of Chinese and World Bank finance during Ethiopia's election years were mostly concentrated in Addis Ababa and areas defined as potential candidates for the EPRDF's national structural transformation and industrialization plans. This marks a stark contrast with multi-party Zambia, where political competition feeds clientelism. Given a lack of political competition from the opposition party, the EPRDF's legitimacy was built on a developmental goal that Ethiopia would escape the poverty trap and achieve industrial transformation. As a result, unlike Zambian leaders who must focus on securing political survival in the short run, the EPRDF's leader can develop a relatively long-term horizon that centralizes rents at a national level.

DISCUSSION

My results contradict Burgess *et al*. and many others' findings in that I show greater democracy may lead to greater ethnic favoritism.[64] Theoretical explanations arrived at in previous literature on Africa's democracy and development may help to explain this seemingly counterintuitive result.

Although participatory multiparty elections have existed for two decades, Africa still lacks the essential social and economic conditions that are crucial to the effectiveness of democratic accountability. Van de Walle argues that there has been an "African democracy fatigue" in recent years given the resurgence of de-facto autocracy in many African countries.[65] Kramon and Posner's empirical study also shows that ethnic favoritism has persisted in Kenya's education sector for five decades and has been of roughly the same magnitude regardless of of multi-party elections.[66] They argue that the appointment of cabinet members from other ethnic groups only serves as window dressing.

The widespread competitive clientelism in Africa means that multiparty politics create more incentives for the distribution of patronage and strengthens existing ethnic favoritism. In comparison with a closed autocracy, elections give contending elites and their followers a belief that they may compete for special privileges to a limited set of state resources. While elites in more autocratic and low-competition environments only need the loyalty of their closest circles of allies and military officers, their counterparts in closely contested environments may be pressured to spend more resources to patronize broader groups of voters.[67] Under this mounting pressure of political survival, African leaders in more democratic regimes may transfer benefits to their co-ethnics, whose votes may be bought at a lower risk and higher efficiency because they understand their needs.[68]

Findings that Chinese and World Bank finances are less likely to be used in the leaders' ethnic regions in an autocracy also corroborates Kelsall's "developmental patrimonialism" model.[69] He argues that it is more likely for a country to discipline rent-seeking to serve its long-term goal of economic expansion if it has a strong and visionary leader, a single dominant party system, a top-down client network, and a vertically disciplined economic technocracy. Ethiopia is a typical case of such "developmental patrimonialism".[70] In contrast, competitive clientelism leads to a fragmented distribution of state resources, making it harder to invest in productive sectors.[71] This heterodox observation does fit into some instances of China's finance in Africa. In countries that have regular elections and are more politically decentralized, there are much longer debates between different ethnic and regional groups when negotiating over China's finance. Beard's case study examining Ghana's US$ 3 billion concessional loans for developing resource extraction infrastructure shows that the deal on the agreement was not reached until a coalition was formed between central and local governments, respectively the John Atta Mills-headed National Democratic Congress government and the Awulae Attribrukusu III-led Western Regional House of Chiefs.[72]

Last, the failure of the World Bank's conditionality in curtailing ethnic favoritism corresponds with previous findings that multilateral donors' commitment to governance and democracy may be overstated in practice. Corrupt governments often receive more development finance than less corrupt ones.[73] There exists an "accountability gap" in development finance allocation.[74] This gap is caused by the fact that development finance agencies only exist to mediate the lack of direct accountability between the recipients and the donor-taxpayers. The public in donor nations have little incentive to learn where their money is spent abroad because this information is too costly. Moreover, evidence shows that the implementation of the World Bank's conditionality often fails due to politics. Kilby reveals that the conditionality of the World Bank's loan disbursements for structural adjustment might fail due to donors' pressure.[75] For countries that are friendly with the US, no stringent conditionality on loan disbursement is imposed. In contrast, there tend to be a significant degree of conditionality enforcement for countries that are not friendly with the US. Similarly, Dollar and Svensson find that almost all of the World Bank's adjustment loans are disbursed fully during the structural transformation period, even if their corresponding policy conditions are not met.[76] Because the World Bank gives adjustment loans to all projects disregarding their different feasibility, it ends in distributing more administrative resources to failed programs than to successful ones.

CONCLUSION

In this paper, I find that an increase in a regime's level of democracy is positively correlated with an increase in the amount of Chinese and World Bank finances flowing to the co-ethnic regions of the regime's leader. Although the magnitude of ethnic favoritism involved in the allocation of World Bank finance across all regimes is less than that of Chinese finance, more stringent conditionality cannot prevent such ethnic favoritism. This may be explained by a lack of social and economic foundations necessary for effective democracy in Africa, where competitive clientelism may force leaders in multiparty politics to transfer more resources to their co-ethnics while their autocratic counterparts only need to satisfy a small circle of political elites and military and bureaucratic allies. ★

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35. (1.406-0.0401) *100%=137%; (3.253-0.0401) *100%=321%

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