Elections as Incentives: Project Completion and Visibility in African Politics

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Abstract

This paper explores the disciplining effect of elections on politicians in Sub-Saharan Africa. Using subnational electoral data from 61 African national elections, I first show that the completion of development projects funded by the World Bank and implemented by governments between 1995 and 2014 yields large electoral benefits for incumbent politicians. The causal effect of completion is identified from an instrumental variables strategy that exploits exogenous variation in the workload of project team leaders at the World Bank. Incumbents are rewarded for completing projects in visible sectors, namely projects providing basic infrastructure and social services, but not for completing projects in other sectors. Using a second instrument that predicts the timing of elections based on pre-determined constitutional rules, I then show that governments expedite completion in response to electoral incentives, target their effort towards visible projects, and prioritize completing ongoing projects over initiating new projects before elections. These effects are not driven by intertemporal substitution of government effort across the electoral cycle. Finally, I provide evidence that democratic institutions reduce delays for visible projects on aggregate. Even in Africa's hybrid regimes, elections incentivize politicians to deliver tangible policy outputs.

Keywords: Elections, Institutions, Policy Implementation, Foreign Aid, Africa
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1 Introduction

Does democracy lead to better policy outcomes in Sub-Saharan Africa? African elections are often compromised by voter fraud or vote-buying and only occasionally result in transfers of political power. Whether electoral politics actually improves incentives for politicians in this context remains an open question. Previous studies have emphasized the dangers of holding elections in weak institutional environments (Mansfield and Snyder, 2005) and documented the political economy distortions engendered by electoral politics, especially in Africa (Block et al., 2003). On the other hand, recent evidence shows that democratization in the region improved public goods provision in specific sectors (Bates and Block, 2013a) as well as overall economic performance (Acemoglu et al., 2016). The channels behind these improvements are not well understood: most African politicians still operate under a set of weak institutions and lack the resources and time horizon to adopt meaningful reforms and to promote structural change.

This paper provides a simple explanation for this puzzle: elections have a causal effect on the effort expended by incumbent governments to achieve specific policy goals. I combine a dataset containing the universe of World Bank-funded projects between 1995 and 2014 with subnational electoral data from 61 African elections across 23 countries to test whether re-election concerns accelerate the delivery of projects across several sectors of policy. I show that voters reward incumbent politicians for completing projects in their districts and that governments respond to these incentives by expediting project completion before elections. The projects most likely to be delivered prior to elections are those that yield the largest electoral rewards for incumbents: projects providing directly observable benefits to voters such as infrastructure and social services. Across African economies, the timeliness of project completion provides a welfare-relevant measure of the performance of policy-makers. Unfinished projects are believed to generate large economic losses for developing countries and have attracted interest from a recent political economy literature (Rasul and Rogger, 2016; Williams, 2017).

The first part of my empirical analysis shows that electoral incentives are salient even in the context of Africa's hybrid political regimes. I investigate whether the completion of ongoing investment projects before elections increases local electoral support for national incumbent leaders. To identify the causal effect of project completion, I propose an instrumental variables (IV) strategy that uses variation in the workload of project team leaders (TTLs) at the World Bank. The instrument exploits the interaction of expected project completion times with the portfolio size of team leaders: a project is less likely to be completed on schedule if the team leader oversees a larger portfolio of projects at the time of expected completion. Politicians seeking to expedite project completion before elections thus face an external constraint imposed by their relationship with the World Bank. Using the arguably exogenous variation provided by this interaction, I find that electoral support for incumbents is significantly higher in areas

where projects have been completed shortly before general elections.

Theories of political agency suggest that politicians prioritize policies that voters are most likely to reward in the polls. But in Sub-Saharan Africa as in other developing regions, voters have limited information to assess the performance of elected officials, beyond tangible policy outputs that they can observe in their constituency. Thus a key characteristic that should determine how governments prioritize projects is their visibility: voters can only make inferences about the performance of incumbents based on the policies and projects they observe.[1] Consistent with this hypothesis, I find that the causal effect of completion on electoral support for incumbents is driven by projects which are most visible or salient to the electorate: projects that provide basic infrastructure and social services. Completion in those sectors increases the incumbent's vote share by 13 percentage points (about a 20% effect size), while projects in all other sectors (agriculture, industry, finance and governance) do not affect incumbent support.[2] I also show that the completion of visible projects only affects incumbent support in countries with some degree of electoral accountability (i.e. in political regimes with a positive Polity IV score), suggesting that the electoral incentives to accelerate completion only exist in those regimes.

In the second part of my analysis, I show that these electoral incentives affect project delivery by incumbent politicians. I provide causal evidence that governments expedite the completion of projects in visible sectors before elections. This result is consistent with a simple model of allocation of government effort across time and sectors where the government faces a future re-election constraint and the politician's type is unobservable to voters. I first estimate the effect of upcoming elections on project completion across sectors using a proportional hazards model. My estimates from this exercise show that every year closer to the next election increases the hazard to completion by 13% for projects in visible sectors, but has a precise null effect on project completion in other sectors.

To test for intertemporal substitution of government effort across different points of the electoral cycle, I then estimate a panel model that looks at project completion as well as contracts awarded – a high-frequency proxy for the effort governments allocate to project implementation – over time and across sectors. I show that governments are more likely to complete projects and to award contracts in the year preceding national elections. These effects are large in magnitude and almost entirely driven by projects in infrastructure and social services. I also find that unlike completion, the initiation of projects does not track the electoral cycle – projects are not more likely to be started before elections. This result implies that elected African leaders prefer

[1] A recent experimental literature on voter information shows that providing signals on the quality of incumbents can translate into meaningful electoral outcomes and subsequently affect policy (Banerjee et al., 2011; Ferraz and Finan, 2011; Casey, 2015; Arias et al., 2017). Previous theoretical work shows this can distort expenditure towards policies and projects that are more visible (Mani and Mukand, 2007) or that send a more credible signal about politician quality (Robinson and Torvik, 2005).

[2] In Africa, there is evidence that voters reward the provision of infrastructure and services (Keefer and Khemani, 2005; Harding, 2015), particularly when politicians exert direct control over them (Harding and Stasavage, 2014).

to engage in "ribbon-cutting" over "ground-breaking" to sway the electorate, and also suggests that so-called white elephants – socially inefficient projects that are often left unfinished – may become less common as African political regimes become more democratic. In this section of the paper, to address the endogeneity of election years, I construct and use an instrument that predicts the timing of elections based on pre-determined constitutional rules across all 42 countries in Sub-Saharan Africa. The construction of this instrument constitutes a separate contribution of this paper to the study of African electoral politics.

Finally, I investigate whether the effects of upcoming elections on project completion translate into aggregate differences in policy outcomes across political regimes in Sub-Saharan Africa (SSA). I explore the aggregate relationship between democracy and the key measure of policy effectiveness that my empirical analysis focuses on – delays incurred by World Bank-funded projects. Using a difference-in-differences strategy that exploits variation in the quality of democratic institutions within countries between 1995-2014, I provide evidence that democracy overall improves the timing of project delivery for visible projects in infrastructure and social services, relative to projects in other sectors.

While projects in these sectors differ from other projects in a variety of ways,[3] I argue that the key difference between both categories for the purpose of my analysis is their idiosyncratic visibility. Voters, upon observing the output of a particular infrastructure or social project (i.e. projects in the transportation, electricity, water, education, or health sectors), can relate this output to government policy and credit incumbent leaders accordingly. This is consistent with survey evidence from the Afrobarometer (displayed in Figure 1) showing that African voters value visible goods such as roads and education when they assess the overall performance of their government.[4] To defend the claim that visibility is the structural characteristic of projects in infrastructure and social services that explains their popularity with voters, I show the relative visibility of projects matters less when voters have greater access to the media: the completion of *both* visible and other (less visible) projects increases electoral support for incumbents in areas with high media consumption. Thus the visibility of goods delivered by politicians may matter most in hybrid or emerging democratic regimes which still lack a vibrant or comprehensive media presence. As democratic institutions become more entrenched and media markets expand, the idiosyncratic visibility of policy is likely to play less of a role for political accountability.

The rest of the paper is organized as follows. Section 2 discusses how this paper contributes to the related literature on political agency, African politics, and the political economy of foreign

[3] First, the first category of projects provides goods that are quintessentially "public" (e.g. water or public health), while projects in other sectors (especially those in agriculture, industry, and finance) place a greater emphasis on individual goods and stimulating private sector activity. Second, the returns from both kinds of projects may be realized over different time horizons – returns from projects that stimulate private sector activity, for example, may be realized over a shorter period of time. Third, both categories may differ in terms of the externalities they generate on the economy as a whole.

[4] Harding (2015) presents consistent evidence in the context of road maintenance in Ghana.

aid. Section 3 provides relevant background on World Bank projects, and section 4 presents case studies from three different projects implemented in the region between 1995-2014. Section 5 provides a simple model to illustrate two of my main empirical findings: governments expend more effort to complete projects as elections approach, and this effort is distorted towards more visible projects. Section 6 describes the data I use in my empirical analysis. Sections 7 describes my main specifications and identification strategies. Section 8 discusses my empirical results. Section 9 concludes.

2 Literature Review

This paper contributes to a vast and growing literature on political agency. Besley (2007) provided a comprehensive discussion of this literature, in which Barro (1970) and Ferejohn (1986) provided early theoretical contributions. While there is ample empirical evidence that electoral accountability affects policy choice in the U.S. (Besley and Case, 1995; List and Sturm, 2006; Besley et al., 2010), similar evidence on the relationship between accountability and government performance in developing countries is comparatively limited. Previous studies in Brazil, Mexico, and Puerto Rico have focused on the relationship between accountability and political corruption (Ferraz and Finan, 2011; Larreguy et al., 2014; Bobonis et al., 2016). Besley and Burgess (2002) show that electoral accountability and media circulation improve disaster relief and public food distribution in India, while Martinez-Bravo et al. (2011) show that local electoral accountability affects public goods provision in rural China.

This paper provides causal evidence that re-election concerns affect a different measure of government performance – the completion of development projects – in Africa, and also alter the allocation of government effort across sectors of development policy. The simple hypothesis I test is in line with the insights from the political agency literature: even in Africa's hybrid regimes, elections alleviate moral hazard and incentivize incumbent governments to "get the job done" before voters head to the polls. I also propose a mechanism for the widely held theory that democracies provide more social services than non-democracies (Ross, 2006): voters reward the production of those goods in low-information environments because they are directly observable to them. Even in settings that lack a vibrant local media, the idiosyncratic visibility of certain public goods can foster accountability for the production of those goods.

My results also relate to a large literature on the economic consequences of democratic transitions in Africa. Early evaluations of the "Third Wave of Democratization" in the region were provided by Joseph, ed (1999), Gyimah-Boadi, ed (2004), and Bratton et al. (2005). Stasavage (2005), Ross (2006), and Bates and Block (2013a) look at the impacts of contemporary democratic institutions on policy performance in education, health, and agriculture, respectively. Bates and Block (2013b) show that political reforms led to the adoption of growth-enhancing policies and

boosted productivity. Van de Walle (2014) argues democratization resulted in the emergence of a form of "democratic clientelism" which may enhance public goods provision in the short and medium term. Burgess et al. (2015) provide evidence that democratic rule undid ethnic favoritism in the allocation of roads in Kenya. This paper shows that electoral politics increases the delivery of public goods in visible sectors of policy (infastructure and social services) across a variety of political regimes throughout Africa.

By testing whether voters primarily respond to "ground-breaking" or "ribbon-cutting" signals, my analysis also contributes to the literature on signaling and credit-claiming by politicians in developing country settings. The most relevant paper in this literature is Robinson and Torvik (2005), who show politicians undertake socially inefficient projects ("white elephants") to signal their ability to supporters. In their setup, completing projects might actually be detrimental to the vote share received by incumbents if it hampers their ability to redistribute rents. Also relevant to this study are the papers looking at policy distortions across time and sectors. The literature on political business cycles (Block, 2002; Block et al., 2003; Labonne, 2013) shows elections distort the timing of fiscal and monetary policy. Bonfiglioli and Gancia (2013) argue incumbents underinvest in costly policies which yield returns over a longer time horizon. Mani and Mukand (2007) show theoretically that democracy distorts the allocation of politician effort towards the production of visible public goods. The model presented in section 5 extends their results to a dynamic setting. Various mechanisms have been proposed to explain why voters respond favorably to the production of visible goods, including voter myopia (Healy and Malhotra, 2009) and simple retrospective heuristics (Berry and Howell, 2007; Harding and Stasavage, 2014). However, there is still a lack of empirical evidence on the aggregate consequences of these policy distortions in hybrid regimes.

Finally, this paper also relates to a vast literature on the political economy of foreign aid (Mkandawire, 1999; Easterly, 2006; Rajan and Subramanian, 2007, 2008). Faye and Niehaus (2012) provide evidence that bilateral aid increases around election years. Briggs (2014) and Jablonski (2014) find that foreign aid has been skewed towards incumbents' political bases in Kenya, while Masaki (2015) finds that aid flows correlate positively with support for opposition parties in Zambia. Ohler and Nunnenkamp (2014) argue there is regional favoritism in the allocation of multilateral aid projects in a sample of 27 African countries. Williams (2017) finds that unfinished development projects in Ghana result neither from corruption nor clientelism, but from intertemporal bargaining failures. Guiteras and Mobarak (2016) investigate whether development aid undermines the political accountability of local leaders in Bangladesh. In this paper, I provide evidence that political accountability within aid recipient countries affects aid effectiveness. My results also suggest that foreign aid flows may contribute to political stability, not necessarily because of donors' preferences for particular regimes (as in Dollar and Levin (2006)) but simply because incumbents are rewarded electorally for the projects they implement,

and are therefore more likely to remain in power after elections.

3 Background

In this paper, I use granular data on the implementation of government projects funded by the World Bank to explore the relationship between policy-making and elections in Africa. In this section I provide relevant institutional details on World Bank projects.

3.1 World Bank Operations and Role

The World Bank Group (WBG) is the world's largest development bank and the second largest recipient of earmarked development assistance after the UN (OECD Development Assistance Committee, 2011; The World Bank, 2015). Together with other sources of official development assistance (ODA), the concessional finance it provides represents a sizeable fraction of government spending in SSA.[5] The data I use in this paper includes USD $102 billion worth of commitments and USD $53 billion worth of disbursements across 42 countries from two lending agencies within the WBG: the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA), which are commonly and collectively referred to as "the World Bank."

Funds provided by the World Bank mainly take the form of budget or programmatic support and are channelled through implementing government agencies before reaching the intended project beneficiaries. The World Bank provides recipient countries with two kinds of loans: investment loans, "issued for projects that have a long-term horizon (usually about 5 to 10 years) and that finance goods, works, and services in support of economic and social development in a broad range of sectors" (The World Bank, 2004a), as well as "development policy loans" aimed at structural adjustment and with a shorter time horizon. The first kind of projects (investment loans) constitute 80% of all projects in my data.

The Bank and its staff play different roles at each stage of the project cycle. Under the authority of a Task Team Leader or TTL (whose responsibilities are described in detail below), the Bank plays a key role at the identification, design, appraisal and approval stages, when various supporting documents (including a Project Concept Note, Project Appraisal Document, and Legal Agreement) are produced. At the implementation stage, governments take the lead in implementation operations while the Bank "ensures that the loan proceeds are used for the loan purposes with due regard for economy, efficiency, and effectiveness" (The World Bank, 2003). The World Bank's *Task Team Leader toolkit* states:

[5] In 2010, net ODA represented 58% of central government spending in a sample 23 Sub-Saharan African countries (The World Bank, 2016b).

> "***Project implementation is the responsibility of the Borrower***. While the Bank's TTL and Task Team are involved in implementation support, they do not substitute for the Borrower's responsibility. The TTL and Task Team monitor activities to ensure that the terms of the loan/credit agreement are followed. Implementation support is a continuous process involving the Borrower, key stakeholders, and the Bank throughout the course of a lending operation" [see The World Bank (2003): p.23; emphasis added].

As mentioned, the responsibility for the design, appraisal, and monitoring of World Bank projects is entrusted to employees of the organization referred to as "Project Team Leaders", "Task Team Leaders" or TTLs. The data I use in this paper (described in section 6) contains information on the identity of the TTL in charge of every World Bank project. According to the World Bank,

> "Task Team Leaders are typically sector specialists who are managing projects: they coordinate the Bank's activities on individual projects and are ultimately responsible for hiring individual consultants to assist the project team. They are not identified as "Task Team Leaders" by title, but will be titled according to their area of expertise: senior health economist, senior engineer, etc." (The World Bank, 2016a).

At the implementation stage, "TTLs and Task Teams regularly monitor the performance of their projects: contracts, disbursements, technical progress, and risk flags" (The World Bank, 2013). TTLs accomplish their monitoring duties by visiting project sites, interacting with implementing agencies and governments, and approving internal requests for additional disbursements or refinancing. TTLs thus play a role in ensuring that projects are implemented and completed on schedule. I later exploit this feature as part of an IV strategy that aims to estimate the causal effect of project completion on electoral outcomes.

3.2 Project Sectors

Projects in the dataset I use are classified by the World Bank as belonging to one of the following ten major sectors: "Agriculture, Fishing and Forestry"; "Education", "Energy and Mining", "Finance", "Health and other social services", "Industry and Trade", "Information and Communications", "Public Administration, Law, and Justice", "Transportation", and "Water, Sanitation, and Flood Protection." Roads, including rural roads, inter-urban roads and highways constitute the majority (67%) of projects in the transportation sector, while water supply constitutes 41% of all projects in the water/sanitation sector.[6]

In my analysis, I classify five of these sectors as delivering the most visible outputs to voters: projects in basic infrastructure (transportation, energy, and water/sanitation) and in social

[6]Other activites in this sector include, by order of importance: general water and sanitation operations, flood protection, waste management, wastewater treatment and collection, and sanitation.

services (education and health).[7] As I show in Table 1B, visible projects as defined by this classification differ from other, less visible projects along a number of characteristics which we expect to correlate with visibility. Relative to projects in other sectors (agriculture, finance, governance, industry and information/communications), projects in visible sectors are spread across a greater number of sites, involve larger monetary commitments, and much larger amounts in civil works contracts (36.4 versus 5.9 million USD on average), making them more likely to be directly observed by the electorate. Visible projects also have higher environmental impacts and higher geocoding precision. In the section below, I use qualitative evidence from an education project in Mozambique to illustrate the importance of visibility (see section 4.3).

4 Case Studies

This section provides a detailed description of three World Bank projects implemented in Ghana, Tanzania, and Mozambique between 1995 and 2014.[8] These case studies seek to illustrate three of the findings I report in my empirical analysis in section 8. First, voters reward incumbents for implementing projects in a timely fashion. Second, the electoral incentives faced by incumbents lead them to expedite project completion before elections and thus reduce implementation delays. Third, projects that provide visible outputs such as electricity, schools, or social protection are most likely to be exploited for political gain.

4.1 Ghana's National Electrification Project (NEP)

The National Electrification Project (NEP) was implemented in Ghana from March 1993 to March 2000. The project comprised a nationwide effort to connect small and medium-sized urban centers to the electricity grid, and sought to pave the way for the effective electrification of the entire country. The project was funded in the amount of USD 183.6 million, 80% of which was covered by an IDA loan. Most of the remaining funds were provided by three government utilities: the Electricity Corporation of Ghana, the National Electricity Fund, and the Volta River Authority (The World Bank, 1993).

The expected completion date at appraisal was September 1998 (The World Bank, 2001b), but the project was actually completed in March 2000 – 9 months before the country's national elections held in December of that year. The Bank's evaluation team attributed implementation delays to an "unexpected shortage of construction materials", as well as ethnic conflict in

[7] The "Energy and Mining" sector contains a range of different activities, including electricity, mining, and energy efficiency – to define visible infrastructure activities, I only include electricity-related projects (i.e. those classified as "Power" or "Transmission and Distribution of Electricity").

[8] Ghana's National Electrification Project (NEP) is not included in the AidData dataset (described in section 6) since it was approved in 1993. Tanzania's Social Action Fund (TASAF) and Mozambique's Education Sector Support Program (ESSP) are included in this data.

the Northern region, and an unexpected deterioration of the financial position of the government utilities (The World Bank, 2001a,b). Because of the initial delay, the Bank rated the overall Borrower's performance as "unsatisfactory" as the government failed to switfly adjust tariffs in response to currency problems. Nevertheless, the electrification component of the project was deemed a success, with 432 of the planned 434 communities (including all district capitals) gaining access to the electricity grid (The World Bank, 2001a).

A fascinating study by Briggs (2012) shows the implementation of the project was guided by the political interests of the National Democratic Congress (NDC) – Ghana's ruling party between 1992 and 2000. The government had initially targeted areas that were most likely to provide swing votes in the 2000 election (thus neglecting core opposition areas and, to a lesser extent, core supporting areas), implying that the incumbent NDC had a clear incentive to implement project activities before the vote. The paper presents a case study of 48 constituencies showing that one half of project areas received their electrification works in 1999, and the other half in 2000 – 1.5 years behind schedule, but in time to become a factor in the December 2000 election.

The party's efforts to improve access to public services were widely advertised by the NDC as the party's "explicit strategy and election advertising, as well as press reports and academic analyses, bundle[d] water, roads and electricity into a 'developmental package' that the NDC promised to provide" (see Briggs (2012), p.618). Briggs (2012) then shows that the decrease in the NDC's vote share (relative to the previous election in 1996) was less pronounced in NEP project areas. Although this was not sufficient to prevent the NDC's defeat in 2000, Ghana's NEP provides a striking example of a high-profile infrastructure project completed in time to influence a competitive election, to the benefit of the incumbent NDC.

4.2 Tanzania's Social Action Fund (TASAF)

Tanzania's Social Action Fund (TASAF) was one of several large-scale community-driven development (CDD) projects implemented in Africa in the early 2000s. This case study illustrates how incumbents expedite completion when the expected completion time coincides with an electoral period. Incidentally, the case study also shows how governments routinely claim and receive credit for projects funded by the World Bank.

TASAF (a visible project in my data) aimed to alleviate poverty through basic service provision, capacity- and skills-building in rural and peri-urban communities, and the creation of temporary safety nets for the poor (The World Bank, 2006c). In practice, the project involved a series of "community development initiatives" across a range of sectors (education, health, water, sanitation, roads and bridges) and a public works program providing "labor-intensive works as a safety-net scheme in targeted poor rural and urban areas" (The World Bank, 2006b). TASAF cost a total of USD 73 million, including USD 60 million from an IDA loan, USD 3

million from the Tanzanian government, and USD 8 million raised from community contributions. Tanzania's 40 poorest districts were targeted for implementation. The expected project completion date was June 2005 and the project was completed on schedule. Tanzania held its subsequent presidential election in December 2005. This election was won by the representative of the incumbent party (CCM), Jakaya Kikwete, with over 80% of the vote.[9]

TASAF was described by Baird et al. (2013) as Tanzania's "flagship CDD program", and indeed "enjoyed political support from the highest levels in Government" from inception to completion (The World Bank, 2006c). The World Bank implementation report describes:

> "His Excellency, President Benjamin William Mkapa of the United Republic of Tanzania, visited Malawi in 1998 where he was impressed by the Malawi Social Action Fund which was financing communities to build schools and clinics, while providing cash transfers to the poor, and providing support to the vulnerable. As a consequence, the President requested the World Bank to send a team to design a similar fund in Tanzania. Government took the lead in preparing the Project concept, actively participating in all the stages of preparation, and ***producing all the required documentation from pre-appraisal through to effectiveness in a timely manner***" [see The World Bank (2006c): p.12; emphasis added].

After the project was completed on schedule, the Bank assigned a satisfactory rating to the performance of the Borrower, whose "commitment was demonstrated through the provision of required counterpart funding" (see The World Bank (2006c), p.13). Community reports advertised by the World Bank suggests that TASAF was widely popular with Tanzanian voters, with the government-backed project receiving credit for delivering a variety of tangible goods whilst putting "villagers at the helm":

> "Villages are choosing their own programs. Some have chosen to upgrade roads; others have built irrigation canals or health clinics. The poorest members of the village are employed. For people like Florida John, a mother of five who bought two goats with her wages, the project has changed her life (The World Bank, 2004b).

Field interviews conducted by Braathen (2004) suggest the CCM government received most of the credit for TASAF activities. For example, a teacher interviewed in 2003 stated: "***People think TASAF is a CCM/government thing***, not World Bank. I therefore think that TASAF helps to increase people's support to the Government" (emphasis added). Similarly, a District Planning Officer candidly expressed that "TASAF is only a funding mechanism, so we say: This is not a donor agency project, it is part of the Government" (see Braathen (2004), cited by Policy Forum (2009)). Baird et al. (2013) also show that areas with higher voter registration and turnout where most likely to benefit from the program, so that the CCM government had a clear electoral in-

[9] Tthe outgoing president, Benjamin Mkapa, stepped down at the end of his second term in 2005.

centive to ensure the timely completion of TASAF.[10] In 2004, before TASAF was officially closed, the Tanzanian government requested and obtained funding for a follow-up project (TASAF-II) which became effective in 2005 and expanded implementation activities to all Tanzanian districts.

4.3 Mozambique's Education Sector Strategy Program (ESSP)

The following case study, Mozambique's Education Sector Strategy Program (ESSP), specifically highlights the role of visibility in determining resource allocation by governments in the course of project implementation. The Mozambican government implemented this program between February 1999 and June 2006, for a total cost of approximately USD 717 million. The project funded the construction and rehabilitation of schools and classrooms, as well as teacher training activities to improve education quality and student test scores. The IDA only provided a small fraction (10%) of the total project cost, with the Mozambican government and other donors committing the remainder of the funds (The World Bank, 1999).

Unlike Ghana's NEP and Tanzania's TASAF, Mozambique's ESSP was not completed shortly before a major election.[11] However, there is evidence from World Bank documentation that the government used (and, in fact, altered) project operations to signal its performance to voters. While the Bank rated the Mozambican government's performance as satisfactory, and the implementation of the project was deemed a moderate success, the project deliverables were changed relative to the original design. As implementation works were stalling, the government substantially revised the project's initial objectives to deliver 12,000 primary schools, and instead only delivered 6,000 primary schools and re-allocated some of the remaining funds to prioritize the building of larger (and more notable) secondary schools (The World Bank, 2006a):

> "In terms of the construction itself, there was an ***understandable shift in the attention of the government to construct more visible and impressive structures*** in response to the growing demand for secondary education. This was in contrast to the initial objective of building smaller and more dispersed schools and as a result fewer communities benefited from the construction program." [see The World Bank (2006a): p.26; emphasis added].

Mozambique's ESSP thus illustrates how incumbent governments use the visible outputs of projects to inform voters about their performance or type. Consistent with this qualitative evidence, in the next section I provide a simple model to highlight my two main empirical results: that the effort expended by governments to complete projects increases in response to upcoming elections, and that this effort is distorted towards more visible projects.

[10] A recent literature documents the electoral effects of conditional cash transfers (CCT) and social protection programs analogous to TASAF – De La O (2013) and (Labonne, 2013) (among others) provide evidence of these effects from Mexico and the Philippines, respectively.

[11] The project's midterm review was postponed from 2002 to 2005, and actual completion was delayed by two years, thus "missing" the 2004 election – the next election was held in 2009.

5 Model

5.1 Setup

The model setup is adapted from Holmstrom (1999) and Mani and Mukand (2007). A government is responsible for implementing two projects v and n over multiple periods, $t = 1, 2, ...$ There are two inputs going into the implementation of each project: the government's idiosyncratic type θ (with θ_g denoting the type of the incumbent), and actions taken by the incumbent at time t, $\mathbf{a_t} = (a_{vt}, a_{nt})$. θ can be interpreted as the politician's ability to deliver projects, including the ability to competently manage the bureaucracy and to "get things done". The level of completion for each project at time t is:

$$y_{vt} = \theta + a_{vt} + \delta y_{v,t-1}$$
$$y_{nt} = \theta + a_{nt} + \delta y_{n,t-1}$$

where δ is some depreciation factor and $y_{v0} = y_{n0} = 0$. The government and the public share prior beliefs about θ, namely that it is normally distributed with mean $\bar{\theta}$ and variance σ_θ^2. a_{vt} and a_{nt} represent effort or resources expended to implement each project and involve a cost for the government, simply defined as:

$$C(a_{vt}, a_{nt}) = \frac{1}{2}a_{vt}^2 + \frac{1}{2}a_{nt}^2$$

The government is risk-neutral and earns rents R_t from being in office at time t. The public is composed of a representative citizen-voter who observes neither the type nor the actions taken by the incumbent, but only the output level attained for each project (with some noise, as described below).

5.2 Timing

At the beginning of the game, it is known that the incumbent will face re-election in some future period T. This election actually occurs (or is "competitive") with exogenous probability D. With probability $1 - D$, the government is certain to remain in power after T.

At time T, the election occurs. In this period, the incumbent first receives the rent R_T and chooses $\mathbf{a}_T = (a_{vT}, a_{nT})$. Voters observe the output realized in each project and update their beliefs about the incumbent's ability. However, the public only observes these outputs with

some noise; specifically, they observe $\mathbf{z}_T = (z_{vT}, z_{nT})$ defined as:

$$z_{vT} = y_{vT} + \varepsilon_v \tag{1}$$

$$z_{nT} = y_{nT} + \varepsilon_n \tag{2}$$

where ε_v and ε_n are both normally distributed with mean 0 and respective variances σ_v^2 and σ_n^2.[12] Voters have symmetric utility over the two goods, $U = \lambda z_{vT} + (1-\lambda) z_{nT}$. Without loss of generality we assume that $\sigma_v^2 < \sigma_n^2$: the level of completion observed for project v provides a more precise signal about the incumbent's performance than the completion of project n (project v is more "visible").

After voters have updated their beliefs about θ_g, the election then occurs with probability D. Whoever wins the election (incumbent or opposition) remains in power for all future periods.

5.3 Government effort after elections

The government in power after time T exerts no effort since there are no electoral pressures ($a_{vt} = a_{nt} = 0$ for $t > T$). Knowing this, the representative voter chooses whether to re-elect the incumbent by simply comparing his posterior assessment of the incumbent's ability with the expected ability of any opposition candidate, $\bar{\theta}$. Thus the rest of the analysis focuses on what occurs before T.

5.4 Government effort before elections

The incumbent chooses an optimal sequence of actions across periods and sectors to maximize his utility:

$$\max_{\{a_{vt}, a_{nt}\}_{t=1}^{T}} \sum_{t=1}^{T} \beta^{t-1} \left[R_t - C(a_{vt}, a_{nt})\right] + (1-D) \sum_{t=T+1}^{\infty} \beta^{t-1} R_t + D\psi(z_{vT}, z_{nT}) \sum_{t=T+1}^{\infty} \beta^{t-1} R_t \tag{3}$$

$$\text{s.t. } z_{vt} = \theta_g + a_{vt} + \delta z_{v,t-1} + \varepsilon_v$$

$$z_{nt} = \theta_g + a_{nt} + \delta z_{n,t-1} + \varepsilon_n$$

Let $R_1 \equiv \sum_{t=1}^{T} \beta^{t-1} R_t$ and $R_2 \equiv \sum_{t=T+1}^{\infty} \beta^{t-1} R_t$. Re-election depends on the level of project

[12] Here, voters only update their beliefs about the incumbent's ability in period T. This is consistent with a large literature showing that voters pay most attention to election-year economic outcomes (Alesina et al., 1993; Healy and Lenz, 2014).

completion observed at time T, which can be rewritten as:

$$z_{vT} = \theta_g \left(\frac{1-\delta^T}{1-\delta} \right) + \sum_{t=1}^{T} \delta^{T-t} a_{vt} + \varepsilon_v \tag{4}$$

$$z_{nT} = \theta_g \left(\frac{1-\delta^T}{1-\delta} \right) + \sum_{t=1}^{T} \delta^{T-t} a_{nt} + \varepsilon_n \tag{5}$$

The voter observes $\mathbf{z_T}$ and expects the incumbent to have chosen the equilibrium sequence of actions $\{a^*_{vt}, a^*_{nt}\}_{t=1}^{T}$ leading to the total equilibrium amount of effort expended until time T, denoted $\tilde{\mathbf{a}}^*_{\mathbf{T}} = (\tilde{a}^*_{vT}, \tilde{a}^*_{nT})$. In a rational expectations equilibrium, the voter's expectations are realized, so that she is able to update her beliefs about θ_g by comparing the observed $\mathbf{z_T}$ with $\tilde{\mathbf{a}}^*_{\mathbf{T}}$. Conditional on this, the incumbent is re-elected if $E(\theta|\mathbf{z_T}, \tilde{\mathbf{a}}^*_{\mathbf{T}}) \geq \bar{\theta}$. In the solution below, let $\psi \equiv \Pr[E(\theta|\mathbf{z_T}, \tilde{\mathbf{a}}^*_{\mathbf{T}}) \geq \bar{\theta}]$ denote the incumbent's probability of re-election.

Since $[E(\theta|\mathbf{z_T}, \tilde{\mathbf{a}}^*_{\mathbf{T}})$ is a random variable and the incumbent is risk-neutral, the government will simply maximize $E[E(\theta|\mathbf{z_T}, \tilde{\mathbf{a}}^*_{\mathbf{T}})]$ over all possible values of $\mathbf{z_T}$. Thus problem (3) can be rewritten as:

$$\max_{\{a_{vt}, a_{nt}\}_{t=1}^{T}} R_1 + (1-D)R_2 + DR_2 \left[E[E(\theta|\mathbf{z_T}, \tilde{\mathbf{a}}^*_{\mathbf{T}})] - \bar{\theta} \right] - \frac{1}{2} \sum_{t=1}^{T} \beta^{t-1} (a_{vt}^2 + a_{nt}^2) \tag{6}$$

where, because all the random variables are normal, the posterior takes the simple form:

$$E(\theta|\mathbf{z_T}, \tilde{\mathbf{a}}^*_{\mathbf{T}}) = \frac{h_\theta \bar{\theta} + h_v(z_{vT} - \tilde{a}^*_{vT}) + h_n(z_{nT} - \tilde{a}^*_{nT})}{h_\theta + h_v + h_n} \tag{7}$$

where h_θ, h_v and h_n denote the precision of each distribution (i.e. the inverse of σ^2_θ, σ^2_v and σ^2_n, respectively). Plugging (4) and (5) into (7), we can write the expectation of the posterior as :

$$E[E(\theta|\mathbf{z_T}, \tilde{\mathbf{a}}^*_{\mathbf{T}})] = \frac{h_\theta \bar{\theta} + h_v \left[\theta_g \left(\frac{1-\delta^T}{1-\delta} \right) + \sum_{t=1}^{T} \delta^{T-t} a_{vt} - \tilde{a}^*_{vT} \right] + h_n \left[\theta_g \left(\frac{1-\delta^T}{1-\delta} \right) + \sum_{t=1}^{T} \delta^{T-t} a_{nt} - \tilde{a}^*_{nT} \right]}{h_\theta + h_v + h_n} \tag{8}$$

where I also used the fact that $E(\varepsilon_v) = E(\varepsilon_n) = 0$ and $E(\theta) = \bar{\theta}$). Finally, plugging (8) into (6)

and taking FOC with respect to each a_{vt} and a_{nt} yields:

$$[a_{vt}] : a^*_{vt} = \frac{\beta\delta^T}{(\beta\delta)^t}\left[\frac{R_2 D h_v}{h_\theta + h_v + h_n}\right] \tag{9}$$

$$[a_{nt}] : a^*_{nt} = \frac{\beta\delta^T}{(\beta\delta)^t}\left[\frac{R_2 D h_n}{h_\theta + h_v + h_n}\right] \tag{10}$$

which characterizes the optimal sequence of actions by the government until T, $\{a^*_{vt}, a^*_{nt}\}_{t=1}^T$. Note that this sequence is strictly increasing for $\beta, \delta \in (0, 1)$.

5.5 Results

In view of the empirical analysis presented in sections 7 and 8, the closed form for (a^*_{vt}, a^*_{nt}) shown in (9) and (10) delivers three interesting insights.

First, total effort increases in every period and every sector until the election if the incumbent expects the election to be more competitive (higher D). This result is intuitive: in the absence of genuine electoral competition, the incumbent is guaranteed to remain in power in future periods and thus has no incentive to signal high performance to voters.

Second, as in Mani and Mukand (2007), the incumbent invests more effort or resources into project v than into project n ($a^*_{vt} > a^*_{nt}$ for all t since $h_v > h_n$), in every period. This result comes from the fact that the visible project (v) provides a more precise signal about the incumbent's type than project n in (1) and (2).

Third, since the equilibrium sequence of effort decisions $\{a^*_{vt}, a^*_{nt}\}_{t=1}^T$ is increasing until the election, and effort becomes zero in subsequent periods, years closer to the election are associated with the highest levels of effort from the incumbent. In other words, for both projects (and for v more so than for project n), the government will invest more effort or resources to complete project works in periods closer to the election. Here this result is driven by two forces: the incumbent discounts the cost of future effort, and the depreciation factor (δ) provides an incentive to spend more effort in periods closer to T. δ can also be interpreted as capturing voter myopia: voters are more sensitive to investments made closer to election time.

In sections 7 and 8, I directly test this hypothesis and show that governments accelerate the implementation of projects in pre-election years. In Appendix 1, I also present an alternative version of this model where projects v and n incur no depreciation over time, voters noisily observe the output for both projects in every period, and the incumbent's type evolves according to a unit root. This alternative model delivers the same predictions as those outlined above.

6 Data

6.1 Electoral Data

In the first part of the analysis, I use data from Larreguy and Marx (2014) who assembled a dataset of local electoral returns from general (presidential or legislative) elections conducted in SSA between 1993 and 2015. Their data is collected at the level of local political units, i.e. at the lowest available level at which votes are counted (the most common types of units are constituencies (55%) and districts (18%)).[13] In this paper, I only consider elections held between 1995 and 2014 (the period during which I observe the completion of World Bank projects) and I drop singletons (electoral units that are observed only once) to allow for a panel estimation with electoral unit (constituency) fixed effects. These sample restrictions yield a dataset comprised of 4,582 observations at the constituency-year level across 23 countries and 61 elections, listed in Appendix Table 1.

The dependent variable I look at is the fraction of the vote received by the incumbent in a given electoral unit. Incumbents are defined as the effective ruling leader at the time a particular election is held. In some elections, the ruling incumbent is not running but there is a clear "designated incumbent" representing the ruling party or the incumbents family – these politicians are then coded as incumbents. Table 1A (middle panel) shows summary statistics from the electoral data. For presidential elections involving two rounds of voting, for comparability reasons, I consider tallies obtained in the first round. Finally, of the 61 elections in the data, 83% are presidential elections. For the remaining elections, I use the vote share of the ruling party to compute the incumbent's vote share (in all these elections, conducted in Angola, Botswana, Lesotho, and South Africa, the leader of the ruling party was the clear candidate for the top executive office). The average vote share received by incumbents is 53% in this data.

6.2 Election cycles and elections instrument

In addition to the electoral data, I constructed a list of all general elections conducted in SSA between 1995 and 2014. General elections are defined as the elections that determine the composition of the executive in every country: as in section 6.1, this includes presidential elections in presidential regimes, and legislative elections in parliamentary regimes.[14] All but three countries (Eritrea, Somalia and Swaziland)[15] in continental Sub-Saharan Africa conducted such an election at least once between 1995 and 2014. There are 143 elections in total in my sample, and

[13] Throughout I refer to these political units as constituencies for simplicity.

[14] These include Angola, Botswana, Ethiopia, Lesotho, and South Africa.

[15] These 3 countries do not affect my empirical results since I include country-year and/or district fixed effects throughout. I do not consider the legislative elections conducted in Swaziland in 1998, 2003, 2008, and 2013, since the Swazi parliament does not hold any executive power.

the average timespan between two elections is 5.2 years.

In addition to actual elections, I also constructed the election cycle predicted by the constitutional rules in force in a subset of countries prior to 1995. Each country's election cycle was simulated using the following rules. First, I collected the date of the last general election conducted prior to 1995. Second, I entered the constitutional rule in force when the last pre-1995 election was conducted and simulated each country's subsequent electoral cycles based on this rule. Third, I reset the instrument (still following the prevailing constitutional rule) for the $t+1$ election if term length rules were changed before the time t election, or if an unscheduled election outside a predicted election year took place at time t (e.g. if the time t election was moved forward or backward because of a leader death, coup, or any other reason). Appendix Table 1 presents the simulated election cycle for each Sub-Saharan Africa based on these rules.

6.3 Aid Data

I combine the electoral data with publicly available data from AidData (Strandow et al. (2011)) to explore the spatial and temporal distribution of World Bank projects in Sub-Saharan Africa. The dataset I use contains the universe of projects in the IBRD and IDA lending lines approved over the 1995-2014 period. In SSA this includes 1,711 approved (and/or completed) projects, 1,651 (96.5%) of which have been geocoded by AidData (these figures exclude small island nations). 226 projects (13%) are refinancing projects (i.e., extensions of existing projects that already appear in the dataset) and 90 projects span multiple countries – I exclude both categories from my analysis. 80.2% of these projects are investment loans and the rest are development policy (structural adjustment) loans. Since development policy loans do not usually have clearly defined deliverables, in this paper I focus primarily on the first kind (investment projects). The projects are spread across 6,684 different locations and 42 countries, with 57% of the geo-coded projects spread across multiple locations. 73% of these projects had been completed by 2014. Figure 2 shows the spatial distribution of World Bank projects across Sub-Saharan Africa, with grey lines representing the boundaries of administrative districts in my sample.

The data includes detailed information on the date of approval and closing of each project, amounts pledged and disbursed, project team leaders for each project, and GPS coordinates of the project's locations.[16] The main variable I construct from this dataset is a binary variable indicating whether a project was completed in a particular district and a particular timeframe. I use this indicator to measure the effect of project completion on electoral outcomes, and to test whether upcoming elections accelerate the completion of projects. To ensure that my results are not driven by abandoned or unsuccessful projects, I only consider as completed projects

[16]Unfortunately the data does not include a detailed breakdown of project expenditure across time; nor does it include the breakdown of expenses between areas in instances where a project was split across multiple locations. As a proxy for goverment effort across time, I also use data on contract awards (described below).

where at least 90% of original commitments were actually disbursed.[17] Table 1A (top panel) present summary statistics from the project data (excluding multicountry projects and refinancing projects). Projects have an average duration of 4.98 years, with the majority of projects (78%) incurring delays. A typical project is worth USD 61.2 million in commitments on average.

I complemented the information obtained from the AidData dataset with two additional sets of variables. First, for each investment project in the data I collected information on the closing date expected at the project appraisal stage. The expected closing date was entered from each project's Appraisal document or, when this document was not publicly available, from the original Credit Agreement between the recipient country and the relevant lending agency.[18] I was able to collect initially expected closing dates for 96% of all original single-country investment projects approved over the period. "Original" means I do not consider refinancing projects that are extensions of ongoing projects, to avoid double counting. Second, I use a dataset made publicly available by the World Bank on major contract awards approved since 2004.[19] From this dataset, I construct two variables of interest: a dummy variable for whether a contract was awarded in a particular district-year between 2004 and 2014, and the log amount awarded. Since contract awards are not geocoded, I assume that a contract is allocated with equal probability to any of the districts where a particular project takes place.

6.4 GIS Data

In the second part of my analysis, in order to estimate the effect of upcoming elections on project completion, I construct a balanced panel of subnational administrative units across 42 countries in Sub-Saharan Africa over the 1995-2014 period. This includes all of SSA with the exception of small islands nations (Cape Verde, Comoros, Mauritius, Sao Tome and Principe, and the Seychelles). The administrative level I use is defined uniformly across all countries in the sample as being two levels down (ADM2) in the administrative nomenclature. In administrative terms, this level is the equivalent of counties in the United States and is alternatively labelled districts, municipalities or *départements* (in francophone countries) throughout Sub-Saharan Africa. For simplicity I refer to these administrative units as districts. There are 3,961 such districts in my sample (94 per country on average). Table 1A (bottom panel) shows summary statistics measured in the dataset at the district-year level merged with the World Bank project data.

[17] The results I report in section 8 are robust to relaxing this condition or to imposing a different condition (i.e. that at least 50%, 75%, 90%, or 100% of committed funds were disbursed).

[18] Project Appraisal Documents and Credit Agreements are available on the website of the World Bank: http://www.worldbank.org/projects/.

[19] This data is available at: https://finances.worldbank.org/Procurement/Major-Contract-Awards/kdui-wcs3/data.

6.5 Other Data

To determine whether my results are driven by the quality of democratic institutions, I use data from the Polity IV project (Marshall et al., 2012) which is measured at the country-year level until 2014. The Polity IV score combines measures of democratic and autocratic attributes of political systems – it exceeds zero if the sum of democratic attributes is greater than that of autocratic attributes. Among 882 country-years observed across 42 Sub-Saharan African countries, the average score is 0.94 and the median score is zero. Regimes in the smaller samples I use for the analysis of electoral results (described in section 6.1) and the analysis of electoral cycles (described in section 6.2) have, predictably, much higher scores overall (the median scores in these subsamples are 6 and 4, respectively).

Finally, I use survey data from the Afrobarometer (Afrobarometer, 2017) to construct measures of media consumption in a subset of constituencies in my electoral sample. I use the subsample of electoral constituencies that overlap with the survey samples of rounds 3, 4, and 5 of the Afrobarometer, and I match every Afrobarometer survey round to the closest election year in each country. I compute three variables at the constituency level from this data: the fraction of survey respondents who report listening to the radio, watching TV, or reading the newspaper every day in the most recent Afrobarometer round conducted before the election. The sample averages of these variables are 54%, 29%, and 10%, respectively.

7 Empirical Framework

My empirical analysis involves three separate exercices, which I describe in this section. First, I estimate the electoral effect of project completion before national elections, using a dataset of electoral returns at the local level. Second, I evaluate the effect of upcoming elections on the completion of projects across all sectors, visible sectors, and other sectors. This includes a proportional hazards specification at the project-year level, as well as a panel specification at the district-year level. Third, I run a difference-in-differences specification to measure the overall effect of democratic institutions on delays incurred by visible projects.

7.1 Do Voters Reward Completion?

7.1.1 Research question

To establish the existence of electoral incentives to complete development projects before elections, I test whether completion increases electoral support for incumbents. As the main outcome of interest, I focus on the local (constituency-level) vote share received by national incumbents in a sample of 61 African elections. Projects that are completed shortly before national elections will affect the vote share received by incumbents if voters reward incumbents

for "ribbon-cutting" as opposed to "ground-breaking". Project completion, as opposed to ongoing, unfinished projects, provide voters with tangible evidence that their government has been actively implementing policy.

In a departure from the literature on distributive politics, I focus on the electoral effects of actual policy implementation conditional on allocation. The goal of this approach is to specifically identify the incentives faced by incumbents to secure the completion of ongoing projects. As described in greater detail below, I therefore estimate the effect of project completion conditional on there being a project already allocated to the constituency. The key problem faced by this approach is that even conditional on allocation, actual project completion correlates with various observable and unobservable determinants of the vote share received by incumbents. For example, incumbents may target their completion efforts towards core supporting areas, leading OLS estimates of the effect of completion on the vote share to be biased upward. Conversely, OLS will be biased downward if governments prioritize opposition areas or swing areas in an effort to capture marginal votes.

7.1.2 Identification

To address endogeneity concerns, I exploit exogenous variation provided by bureaucratic constraints inside the World Bank. While national governments are responsible for the implementation of World Bank-funded projects, the Bank still plays a monitoring role at the implementation stage by ensuring that "loan proceeds are used for the loan purposes with due regard for economy, efficiency, and effectiveness" (The World Bank, 2003). Inside the World Bank this monitoring responsibility falls primarily upon the Task Team Leader, or TTL. As described in section 3, TTLs monitor project progress by visiting field sites, interacting with government agencies, producing project documentation, and approving requests for additional disbursements or deadline extensions. TTLs are sector specialists who are typically in charge of several projects across multiple countries. The actual portfolio size of a TTL varies over time as existing projects are completed, and other projects are designed and approved. The portfolio size thus constitutes a good proxy for a TTL's workload, i.e., for the amount of time and effort that the TTL can devote to any particular project.[20] Considering the AidData data worldwide, in 2014 a typical TTL oversaw 1.7 projects (SD 0.95) across 1.6 countries (SD 0.84) on average, and the portfolio size ranged between 1 and 6.

In the strategy I develop below, the intuition for my first-stage is that a project is less likely to be completed on schedule if that project's TTL has a heavier workload at the time of expected completion. Specifically, I instrument for project completion before the election using the interaction of expected completion before the election with the TTL's portfolio size, controlling for

[20] A 2011 World Bank report suggests TTLs may perhaps be "overworked" (The World Bank, 2011).

the main effects of expected completion and portfolio size. For every constituency and every year in the data, the instrument is constructed as follows. First, I identify the TTLs in charge of any project implemented in constituency i in any given year using the worldwide AidData data (see section 6). Second, I calculate the leave-out number of projects overseen by each TTL worldwide as a measure of workload. If only one project is implemented in constituency i in any given year, then the instrument is equal the contemporaneous leave-out portfolio size of the TTL in charge of this particular project. If multiple projects are implemented, then the instrument takes a value equal to the average (leave-out) portfolio size across all TTLs in charge of projects in the constituency. Third, for any election taking place in year t, I use the value of the TTL portfolio at time $t-1$, which I then interact with the dummy for expected completion. I use the portfolio value at $t-1$ instead of t since the TTL's workload at t may be endogenous to the completion of a project in constituency i at $t-1$.

The exclusion restriction in this case requires that the interaction between expected completion and the TTL's portfolio size only affects electoral support for incumbents through its effect on project completion, conditional on the main effects of expected completion and TTL portfolio, country-year fixed effects, and constituency fixed effects (which are included in every specification). This identification assumption seems plausible given that governments have no agency over the appointment of TTLs; thus a TTL's portfolio size is unlikely to correlate with the local vote share received by incumbent leaders across project areas. Nevertheless, I present several identification checks in section 8 to show that the exclusion restriction holds.

7.1.3 Main Specification

For any national election taking place at time t, I regress the vote share received by the incumbent presidential candidate (or the leader of the incumbent ruling party), which is observed at the constituency level, on a measure of project completion before the election in the same constituency, conditional on a project having been allocated to that constituency. My baseline equation is the following specification:

$$v_{ijt} = \beta_0 + \beta_1 Actual\_Completion_{ijt} + \beta_2 Expected\_Completion_{ijt} + X'_{ijt}\Omega + \gamma_i + \delta_{jt} + \varepsilon_{ijt} \quad \text{(EL1)}$$

where v_{ijt} denotes the vote share of the incumbent national leader in constituency i, country j and election year t. $Actual\_Completion_{ijt}$ is a dummy variable indicating whether a project was completed in constituency i before the time t election, namely in year t or $t-1$, controlling for $Expected\_Completion_{ijt}$, which is a dummy variable indicating whether a project completion was expected in constituency i in the same timeframe. β_1, the coefficient of interest, thus captures the electoral effect of completing an ongoing project on schedule before the time t election. X'_{ijt} is a vector of controls including the TTL's portfolio size (constructed as described

above) and measures of project allocation to constituency i before the election: these include the number of active projects in constituency i at time $t-1$, the cumulative sum of all commitments of the constituency in the 5 years prior to the election, and the average TTL portfolio size over the sample period. γ_i and δ_{jt} are constituency fixed-effects and country-year fixed-effects, respectively. These fixed effects absorb any time-invariant variation at the constituency level (the γ_i terms) and any variation between elections (the δ_{jt} terms), hence all the variation I exploit is across years within constituency, and between constituencies in a given country-year.[21] Standard errors are clustered by constituency.

To address the endogeneity concerns discussed above, I present estimates from equation (EL1) obtained via OLS and 2SLS. In the 2SLS specification, I instrument for $Actual\_Completion_{ijt}$ using the interaction of $Expected\_Completion_{ijt}$ and $TTL_{ij,t-1}$, the TTL's leave-out portfolio size in the year prior to the election. The intuition for the first-stage is that a project is less likely to be completed on schedule if that project's TTL oversees a larger portfolio of projects in year $t-1$. The first stage equation can be spelled out as:

$$\begin{aligned} Actual\_Completion_{ijt} = \alpha_0 + \alpha_1 Expected\_Completion_{ijt} \times TTL_{ij,t-1} \\ + \alpha_2 Expected\_Completion_{ijt} + \alpha_3 TTL_{ij,t-1} + X'_{ijt}\Omega + \gamma_i + \delta_{jt} + \varepsilon_{ijt} \quad \text{(FS1)} \end{aligned}$$

where the first RHS term after the constant is the excluded instrument. To separately estimate the electoral effects of project completion in visible sectors and other sectors, I then run a modified version of equation (EL1):

$$\begin{aligned} v_{ijt} = \beta_0 + \beta_1^v Actual\_Completion_{ijt}^v + \beta_1^n Actual\_Completion_{ijt}^n + \beta_2^v Expected\_Completion_{ijt}^v \\ + \beta_2^n Expected\_Completion_{ijt}^n + X'_{ijt}\Omega + \gamma_i + \delta_{jt} + \varepsilon_{ijt} \quad \text{(EL2)} \end{aligned}$$

where each variable is defined as above, separately for visible projects and other projects (the v and n superscripts denote visible and 'non-visible', respectively). Here X'_{ijt} includes the main effects $TTL_{ij,t-1}^v$ and $TTL_{ij,t-1}^n$, in addition to the other same controls as in equation (EL1). In this case, the model is just idenfied with 2 endogenous regressors (actual completion in visible sectors and other sectors) and two instruments, which are the two interactions of expected completion and TTL portfolio for visible projects and other projects. The corresponding first stage equations are analogous to equation (FS1):

$$\begin{aligned} Actual\_Completion_{ijt}^{\tau} = \alpha_0 + \alpha_1^v Expected_{ijt}^v \times TTL_{ij,t-1}^v + \alpha_1^n Expected_{ijt}^n \times TTL_{ij,t-1}^n \\ + \alpha_2^v Expected_{ijt}^v + \alpha_2^n Expected_{ijt}^n + \alpha_3^v TTL_{ij,t-1}^v + \alpha_3^n TTL_{ij,t-1}^n + X'_{ijt}\Omega + \gamma_i + \delta_{jt} + \varepsilon_{ijt} \quad \text{(FS2)} \end{aligned}$$

[21] Country-year fixed effects are equivalent to election fixed effects in this specification, since the dataset is at the level of a constituency-year, and outcomes are observed only during election years.

where $\tau \in \{v, n\}$, and X'_{ijt} includes all the relevant main effects, and $Expected^{\tau}$ refers to expected project completion in sector τ.

7.2 Do Elections Accelerate Completion?

7.2.1 Research Questions

The specifications presented thus far are used to establish the existence of electoral incentives to complete visible projects before elections. In the second part of the analysis, I test whether policy delivery (actual completion) responds to these incentives: the main research question in this section is whether upcoming elections accelerate project completion across all sectors, visible sectors, and other sectors. The hazard model presented in section 7.2.2 provides the most straightforward test of this hypothesis. In this model, the hazard to completion (a discrete event) is estimated as a function of time and other covariates, including one main covariate of interest which captures the proximity to the next election. The panel model presented in 7.2.3 allows for two additional tests: whether elections increase other measures of government effort beyond completion, and whether the initiation of projects also varies across different points of the electoral cycle.

7.2.2 Hazard Model

I first estimate a Cox proportional hazards model of the following form:

$$\lambda(t) = \lambda_0(t) \exp\left(\alpha Y_{jt} + X_{pjt}\Gamma'\right) \tag{H1}$$

where $\lambda(t)$ denotes the Cox hazard function, Y_{jt}, the main regressor of interest, is the number of years until the next election in country j at time t; and X_{pjt} is a vector of controls at the level of project p, including start year dummies, the project's expected duration at appraisal, log total commitments in USD, a dummy for IDA-funded projects, and a dummy for SAPs. Here the parameter α captures whether the proximity to the upcoming election in country j contributes to accelerate project completion. I also estimate the following equation:

$$\lambda(t) = \lambda_0(t) \exp\left(\sum_{\ell=0}^{3} \beta_\ell E_{jt}^{-\ell} + X_{pjt}\Gamma'\right) \tag{H2}$$

where $E_{jt}^{-\ell}$ is defined as a dummy equal to 1 if the next election in country j is ℓ years ahead at time t. I only include the $E_{jt}^{-\ell}$ dummies for $\ell \leq 3$ since many countries in my sample have four-year cycles. Other variables are defined as in equation (H1). I run these equations on a dataset at the project-year level containing 1,395 projects (this is the universe of projects in the Aid-

Data database, minus multicountry projects and refinancing projects to avoid double counting). These include 608 "visible" projects and 787 other projects, which here include development policy loans. I weight the data by project size (total commitments) measured in USD, so that the sample is representative of the universe of projects in terms of dollar spent (in the Appendix, I show robustness to estimation on the unweighted data). Actual completion events are observed for 815 of these projects (other projects were unfinished as of 2014) and the dataset includes a total of 4,794 project-years. To ensure that my results are not driven by abandoned or unsuccessful projects, I only classify as completed projects where at least 90% of initial commitments were actually disbursed. My results are robust to relaxing this condition or to imposing a different condition (i.e. that at least 50%, 75%, 90%, or 100% of committed funds were disbursed). In the Appendix, I show that my estimates from equations (H1) and (H2) are robust to including country dummies. I also estimate a Poisson regression of the same model (equation (H1)), where I instrument for the actual number of years until the next election using the predicted number of years until the next election, using the simulated election cycle (see section 6.2).

7.2.3 District panel specifications

To evaluate the effect of electoral incentives on several measures of government effort across time, I then investigate whether project completion and contract awards (a high-frequency measure of policy implementation) track the electoral cycle, using the following panel specification:

$$y_{ijt} = \alpha + \sum_{\ell=0}^{3} \beta_\ell E_{jt}^{-\ell} + \gamma_i + \delta_t + \mu_{jt} + \varepsilon_{ijt} \tag{P1}$$

where i, j and t denote district, country and year, respectively, E_{jt} is a dummy variable equal to 1 if country j had an election in year t, and $E_{jt}^{-\ell}$ equals 1 if the next election in country j is ℓ years ahead at time t. I construct the data to prevent overlaps between the $E_{jt}^{-\ell}$ dummies, but all the estimates I present are robust to an alternative approach where I allow these dummies to overlap.[22] The specification includes district fixed-effects γ_i, year fixed-effects δ_t, as well as leader fixed effects μ_{jt}.[23] The main outcome I look at, y_{ijt}, is either a dummy variable indicating whether a project was completed, a dummy variable indicating whether a project contract was awarded, or the log amount of contracts awarded in district i and country j at time t. Standard errors are two-way clustered by district and country-year throughout. Clustering by district addresses serial correlation within districts across time, and clustering by country-year address correlation between districts (note the $E_{jt}^{-\ell}$ vary at that level). The main coefficients of interest

[22] For example, if an election takes place in country j at time t, and another election takes place at time $t+2$, then the year of the first election has $E_{jt} = 1$ and $E_{jt}^{-2} = 0$. There are very few such cases of overlap in my data, since few elections took place in a 2-year or a 3-year interval.

[23] Since the $E_{jt}^{-\ell}$ vary at the country-year level, I cannot include country-year fixed effects in equation (P1). The leader fixed effects are included to capture some of the variation at the country-year level.

are β_0 and β_1 (the coefficients associated with the election year dummy and the $(t-1)$ dummy),[24] which capture whether projects are disproportionately more likely to completed at the peak of the election cycle.

One identification concern with equation (P1) is incumbent leaders can manipulate election dates in response to the timing of completion of World Bank projects. This would be a concern for identification if, for example, incumbent leaders postpone an election to ensure that elections are held shortly after a major project is completed. This concern seems warranted given that I find large effects of project completion on subsequent vote shares (see section 8), which could create an incentive for leaders to schedule elections in response to project completion. To address this concern, I instrument for the $E_{jt}^{-\ell}$, $\ell \leq 3$ terms in equation (P1) using $S_{jt}^{-\ell}$, which are dummies equal to 1 if the next scheduled election in country j is ℓ years ahead according to the simulated election cycle described in section 6.2.[25]

7.3 Effects of Democracy on Delays of Visible Projects

Finally, in order to evaluate the net effect of democracy on project completion across visible and other sectors, I conduct an additional exercise: I test whether visible projects incur observably fewer delays in democratic regimes. Using a dataset at the project level, I estimate a difference-in-differences (DID) specification that exploits democratic transitions within countries over time. Specifically, I regress a measure of project delays on a dummy for visible projects (projects in basic infrastructure and social services), a dummy for projects implemented under democratic regimes (the dummy equals one if the country's average Polity IV score over the project life is greater than zero),[26] and the interaction of these two variables, along with a number of controls interacted with the democracy dummy, country fixed effects and year fixed effects. The dependent variable Y_{ijt} is a dummy variable equal to 1 if the project was completed after the completion date expected at the appraisal stage (the mean of this variable is 78%). The specification is analogous to a DID specification and can be spelled out as:

$$Y_{ijt} = \beta_0 + \beta_1 V_{ijt} + \beta_2 D_{ijt} + \beta_3 V_{ijt} \times D_{ijt} + X'_{ijt}\Omega_{ijt} + \gamma_j + \delta_t + \varepsilon_{ijt} \qquad \text{(DID)}$$

where i denotes projects, j denotes countries, and t denotes start years of projects; V_{ijt} equals 1 for projects in visible sectors; D_{ijt} equals 1 for projects implemented under democracy (as defined above), and X'_{ijt} is a vector of project-level controls interacted with D_{ijt} (log total commitments in USD, the expected project duration at appraisal, and a dummy for IDA projects). β_3

[24] Of the 143 general elections conducted between 1995 and 2014, 47% were conducted in the first half of the year. The median election month is July.

[25] This IV is similar to Cole (2009) – in his setup, elections occur in five-year intervals in every Indian state.

[26] In Appendix Table 6, I show estimates obtained from a similar specification that relies instead on the continuous Polity IV score.

is the DID coefficient of interest. In this specification, the identification assumption is a parallel trends assumption: conditional on the controls and fixed effects X'_{ijt}, γ_j, and δ_t, visible projects are no more likely to experience delays (relative to other projects) under democratic regimes than under non-democratic regimes.

8 Results

8.1 Voters Reward Completion

8.1.1 Main Results

The first part of my empirical analysis presents estimates on the electoral effects of completing projects before elections. Since the identification of the effect of completion relies on the IV strategy described in section 7.1.2, I first present results from my first-stage. The first-stage regression estimates the relationship between the workload of TTLs, expected project completion, and actual completion. These results are of independent interest since to the best of my knowledge, there is no evidence on the relationship between the workload of technicians inside aid agencies such the World Bank and the outcome of aid projects.

Table 2 shows the estimates I obtain from equation (FS1). The top panel reports the first-stage coefficients on the excluded instruments, and the bottom panel reports the main effects included in both the first and the second stage. Column (1) reports coefficients obtained when looking at projects in any sector. The coefficient on the interaction of expected completion with TTL portfolio size (the instrument) is negative and significant at 1%: a project is less likely to be completed on schedule if that project's TTL oversees a larger portfolio at time $t-1$ for an election at time t. The main effects of expected completion and TTL portfolio (which are included as controls in the second stage) are positive and significant. In the following columns, I present estimates obtained when using completion in visible sectors (column (2)) and completion in other sectors (column (3)) as the dependent variable in the first-stage regression. Visible sectors are defined as those that provide roads, electricity, water, education and health services. In column (2), expected completion in visible sectors, TTL portfolio in visible sectors, and the interaction of these two variables are all significant predictors of completion in visible sectors, while (as expected) the corresponding variables for other sectors are all non-significant. The coefficients in column (3) display a symmetric pattern. In both these columns, the relevant interaction of expected completion with TTL portfolio is negative and significant: the result from column (1) holds across projects in both visible and other sectors.

In Table 3, I exploit these first-stage results to identify the effect of completed projects across all sectors, all visible sectors (infrastructure and social services), and all other sectors on electoral support for incumbents. The dependent variable in this table is the vote share received by na-

tional incumbents in the subsequent general (presidential or parliamentary) elections, measured at the level of a district or constituency, as described in section 6. The average score received by incumbents in this sample is 53%. I regress this variable on a dummy indicating project completion in the same district or constituency before the election (i.e., in years $[t-1, t]$ for a time t election), a dummy indicating expected completion in the same timeframe, as well as the set of controls described in Section 7 (in the baseline specification these include: the number of active projects in visible and other sectors at $t-1$, funds committed in previous years, and average TTL portfolio size), country-year (election) fixed effects, and constituency fixed effects. I report OLS estimates from equations (EL1) and (EL2) in columns (1) and (3), respectively, and 2SLS estimates (along with the corresponding Kleibergen-Paap Wald first-stage F-stat) in columns (2) and (4). Controls are included throughout, and I report estimates obtained without controls in Appendix Table 2A. In the IV specifications, I instrument for actual completion using the interaction of expected completion with the TTL portfolio size, as described above. The regressor of interest in columns (1)-(2) is project completion in any sector. In columns (3)-(4), I estimate the effect of completed projects in both visible and other sectors.

In column (1), the OLS estimate of β_1 is 3.3 percentage points, significant at 10%. The corresponding IV coefficient is positive and significant at 5%. This effect is large in magnitude (26 percentage points, or 49% of the mean): incumbents reap large electoral benefits for pushing projects "across the finish line" before national elections. The large size of this effect relative to the OLS estimate can be explained by four different factors. First, in this setup compliers are incumbents who successfully complete projects despite facing an exogenous constraint from the World Bank (i.e., despite interacting with a busier TTL). These incumbents are likely to be higher performing politicians (better implementers). The local average treatment effect measured by this specification is therefore likely to be large. Second, World Bank projects provide a large quantity of benefits to voters: the typical project in my data allocates 5.4 million USD overall and 2.0 million in civil works contracts per project area.[27] Third, the OLS estimate is likely downward biased in column (1) as all the measures of project allocation which are included as controls are negatively correlated with the vote share. This is consistent with studies in the literature (e.g. Briggs (2012) and Masaki (2015)) showing that aid projects target opposition areas or swing areas. Fourth, if (as a mechanical consequence of the previous point) more projects are completed in non-aligned areas, then we expect a large effect of completion on the incumbent's vote share since completed projects convince swing voters and new supporters as opposed to simply mobilizing the base.[28]

[27] A back-of-the-envelope calculation based on a partial subset of constituencies with available registration data suggests this corresponds to transfers of at least USD 125 per project and per voter.

[28] I also obtain large estimates of completion when using a continuous measure of completion (the number of completed projects) as the endogenous regressor. A one-unit increase in this variable yields a 8-10 percentage points increase in the incumbent's vote share in the IV estimation.

Since this paper is (to my knowledge) the first to use subnational electoral data on incumbent support across a large number of Sub-Saharan African countries, comparing this effect with other estimates in the literature is not straightforward. However, country-specific studies provide a relevant benchmark. For example, Macdonald (2014) provides regression discontinuity estimates of the incumbency *dis*-advantage in Zambian elections ranging between 7.5 and 27.5 percentage points. Harding (2015) shows that a one SD increase in average road conditions increases the incumbent party's vote share by a quarter of a SD in Ghana. De Kadt and Lieberman (2017) show that moving from zero water coverage to full coverage has a 14.6 percentage point (negative) effect on local support for the ANC in South Africa. These studies and the estimates I present suggest that electoral support for incumbents in Africa is both very volatile and highly responsive to local changes in public goods provision.

In column (3)-(4), I estimate the effect of projects completed in both visible sectors and other sectors. The OLS coefficient for visible projects is 4.5 percentage points, significant at 1% (column (3)). The corresponding 2SLS coefficient is significant at 5% and approximately 13 percentage points in magnitude (column (4)) – slightly more than a 20% effect size. Estimates without controls are very similar (see Appendix Table 2A). In these columns, I also find a null effect of project completion in other sectors on incumbent vote shares – the OLS specifications deliver a precisely estimated zero (column (3)), while the IV estimates are positive, non-significant (column (4)). Overall, columns (3)-(4) provide the key result in this section: completing visible projects before elections significantly improve the electoral prospects of incumbent leaders, while projects in other sectors are not rewarded by voters. This result provides the intuition for the hypothesis that governments should prioritize project implementation in visible sectors in the lead-up to elections. I test this hypothesis in section 8.3.

8.2 Robustness and identification checks

I present two sets of robustness checks in Appendix Table 2A through 2D. In Appendix Table 2A, I present estimates from equations (EL1) and (EL2) without any controls other than the main effects of TTL portfolio and expected completion. The results are statistically unchanged. In Appendix Table 2B, I compare the estimates reported in Table 3 with estimates from a similar specification that controls for TTL dummies. The purpose of this check is to ensure that my results are not driven by unobserved TTL characteristics. The specification with TTL dummies yields very similar estimates. In Appendix Table 2C, I check that my effects are not driven by projects designed to be completed several years before the election but strategically delayed so that their completion occurs just before the election. I conduct this check by including dummies for expected project completion and actual completion in years $t-2$, $t-3$, and $t-4$ of the electoral cycle. I obtain very similar estimates in this specification as well.

In Appendix Table 2D I test whether my estimates are sensitive to the choice of instrument

– still using the TTL's workload as the main source of identification. In column (1), I show the estimate obtained when instrumenting for completion (in any sector) using the level of the TTL portfolio at $t-1$. In column (2), I use both the level of this variable and its interaction with expected completion. In column (3), I only use the interaction (as in Table 3) and I control for the main effect of TTL portfolio size, $TTL_{ij,t-1}$. I obtain very similar IV estimates throughout. In column (2), I can also run a Sargan test of overidentification since the model has now two instruments for one endogenous regressor. I do not reject overidentification (the test statistic is 0.004 and corresponding p-value is 0.948), lending additional support to the validity of the exclusion restriction in my main specifications.

8.2.1 Heterogeneity

In Appendix Table 3A, I show that the positive effect of completion in visible sectors on incumbent support is driven by the more democratic regimes in my sample. I report the same specifications as in Table 3, but I split the sample into two groups: countries with a positive Polity IV score when the time t election was held (labelled "Democracy" in the table), and countries with a non-positive Polity IV score at time t. Note that the average vote share received by incumbents is much higher in non-democratic regimes (66%) than in democratic regimes (49%). Estimates for democratic countries are shown in odd-numbered columns, and estimates for non-democratic countries are shown in even-numbered columns.[29] I report OLS estimates in columns (1)-(2) and 2SLS estimates in columns (3)-(4), although the lack of strong first stage in non-democratic countries means I can only report noisy estimates for these countries. In democratic regimes, project completion in visible sectors has a positive, significant effect on electoral support for incumbents, while projects in other sectors have a non-significant effect. These results hold in both the OLS estimation (column (1)) and the 2SLS estimation (column (3)). By contrast, I estimate a null effect of project completion in both visible sectors and other sectors in non-democratic regimes (columns (2) and (4)). The results provide further evidence that elections are only likely to affect policy in those countries where electoral accountability matters: in the absence of genuine electoral competition (i.e., in those countries classified as autocracies by the Polity IV project), completion has no effect on incumbent vote shares.

In Appendix Table 3B, I test the hypothesis that visibility is the key characteristic that differentiates projects in infrastructure and social services. Using a subsample of electoral constituencies that overlap with the survey sample of the Afrobarometer (Afrobarometer, 2017), I test whether the effects found in Table 3 are heterogeneous along three measures of media consumption: the fraction of survey respondents who report listening to the radio, watching TV, or reading the newspaper every day in the most recent Afrobarometer round conducted before

[29] I obtain similar results when splitting the sample between countries with a Polity IV score above the sample median, and countries with a score below the median.

the election. I interact these variables with actual project completion before the election (i.e. in years $[t-1, t]$) and present the resulting interaction of interest and main effects. I only present OLS estimates throughout, since the first-stage relationship is too weak in this subsample of constituencies to obtain reliable estimates. While the interactions with radio consumption do not deliver significant estimates (columns (1)-(2)), I find significantly positive interactions of completion with TV viewership (columns (3)-(4)) and newspaper readership (columns (5)-(6)), across both visible and other sectors. In areas where voters regularly watch TV or read newspapers, completed projects in *both* visible sectors and other sectors translate into greater electoral support for incumbents. This suggests that the idiosyncratic visibility of projects in infrastructure and social services plays a less important role when local media document the delivery of projects across all sectors – media consumption offsets the effect of visibility. Conversely, this provides suggestive evidence that in the absence of a strong local media presence, the higher idiosyncratic visibility of projects in infrastructure and social services mediates the accountability relationship between political leaders and the electorate.

8.3 Elections Accelerate Completion

8.3.1 Hazard Model

Having established that incumbent governments face strong incentives to complete projects before elections, I now turn to the second research question in this paper: do governments expedite completion in response to upcoming electoral battles? I first estimate how project implementation responds to upcoming elections and the electoral cycle. Table 4 presents estimates from the proportional hazards model described in section 7.2.2. I look at the universe of projects in columns (1)-(2), with column (1) displaying the coefficient of interest from equation (H1) (α) and column (2) the coefficients of interest from equation (H2) (the β_ℓ coefficients). I then look at the subsamples of visible projects in columns (3)-(4), and of other projects in columns (5)-(6). All regressions in this table are weighted by project size in USD and include the set of controls described in section 7. Standard errors are heteroskedasticity-robust throughout.

Across all sectors, there is evidence that the proximity to the next election accelerates the completion of projects. The number of years until the next election is significantly associated with a lower hazard rate, implying that projects are more likely to be completed as the election nears (column (1)). The coefficient presented in column (1) is robust to a range of alternative specifications, as I show in Appendix Tables 4A and 4B (discussed below). Note the sample size is slightly smaller in column (2) than in column (1) since the variable Y_{jt} is unobserved after the most recent election in every country. The estimates shown in column (2) provide additional evidence in support of this result – the election year dummies appears significant in this specification, with an effect size of 37%.

Columns (3) through (6) compare the effect of upcoming elections on the completion of projects in visible sectors (basic infrastructure and social services) as opposed to projects in other sectors. In column (3), I find that the hazard to completion decreases by 13% for every additional year "away" from the next election. This effect is significant at 1% and robust to the inclusion of country dummies (Appendix Table 4A, column (3)). Consistent with this, column (4) shows that both the years t and $t-1$ in the electoral cycle are significantly associated with a higher hazard rate – the magnitude of these coefficients ranges between 42% and 48%. Columns (5)-(6), on the other hand, show that elections do not accelerate the completion of projects in other sectors. For those projects, I find that the number of years until the next election has a precise null effect on hazard to completion (column (5)) and that none of the β_ℓ coefficients from equation H2 appear statistically different from zero. Note that the $\hat{\alpha}$ coefficients in columns (3) and (5) are significantly different from each other.[30]

In Appendix Table 4A, I show that the estimates I obtain from this model are robust to including country dummies. In Appendix 4B, I also report robustness to a range of specifications, including a specification where standard errors are clustered by country, and a specification estimated on the unweighted data. I also report the estimated coefficients on all control variables in Appendix Table 4A and 4B. Among these controls, only one (expected duration at appraisal) is significantly associated with the hazard rate across all specifications.

In Appendix Table 4C, I also check that these estimates are not driven by the endogenous timing of elections. I estimate two different models in this table. In odd-numbered columns, I run the same Cox proportional hazards model as in Table 4, but instead of the actual number of years until the next election, I include on the right-hand side the simulated number of years based on the elections instrument described in section 7. I show estimates for all projects, visible projects, and other projects in columns (1), (3), and (5), respectively. The results in these columns also have an "intent-to-treat" interpretation: these estimates show that project completion is positively affected by the proximity to *expected* elections. In even-numbered columns, I estimate a Poisson regression where I instrument the actual number of years with the simulated number of years until the next election. The results are qualitatively similar to those reported in Table 4.

8.3.2 Panel Results

One limitation of the hazard analysis presented above is that it lacks a high-frequency measure of government effort across the election cycle. To address this limitation, and to test for substitution of government effort across time and across sectors, I estimate the panel specification presented in section 7.2.3 using an alternative measure of bureaucratic effort – contract awarded

[30] To show this, I estimate the hazard model on the full sample with interactions for the number of years until the next election multiplied with a "visible" and an "other" dummy. I then run a chi-square test that these two interactions are equal. I reject the null with a p-value of 0.0117.

across projects in visible sectors and other sectors – as the dependent variable. To address the concern that incumbent leaders manipulate the timing of elections in response to the timing of major projects, I implement the IV strategy described above, where I instrument for the election year dummies using a simulated election cycle based on baseline constitutional rules. In Tables 5, 6A-6B, and 7, I estimate equation (P1) via OLS and 2SLS. For the 2SLS results I also report the Kleibergen-Paap robust first-stage F-stat. Herethe model is just-identified with 4 instruments and 4 endogenous regressors, i.e. the four $\{E_{jt}^{-\ell}\}_{\ell=0}^{3}$ dummies.

I first check that the results on project completion from the hazard model hold in this specification. In Table 5, I present my estimates of the effect of upcoming elections on completion obtained from equation (P1). I first estimate the model including the four dummies $\{E_{jt}^{-\ell}\}_{\ell=0}^{3}$ on the right-hand side (columns (1)-(2)). In columns (3)-(4), I introduce a E_{kt}^{+1} term to test for intertemporal substitution with years immediately following an election. The dependent variable in this table is a dummy for any completed project in the district, across all sectors (in columns (1)-(4)), visible sectors (in columns (5)-(8)), and other sectors (in columns (9)-(12)).

Taking all sectors into consideration, projects are between 1.8 and 3.1 percentage points more likely to be completed in the year preceding a major election. The magnitude of these effects is large – more than 50% of the mean. Across all columns, the 2SLS estimation delivers similar results as OLS. The coefficients associated with election years (E_{jt}) are positive but statistically indistinguishable from zero. Note that the estimates presented in columns (1)-(2) are robust to a range of alternative specifications, including a specification where standard errors are clustered by country, a specification without leader fixed effects, a specification with country-specific linear time trends, two alternative weighting schemes by area and population, and a model including lags of y_{ijt} estimated via GMM. I report these robustness checks in Appendix Table 5B. In columns (3)-(4), I find no evidence of intertemporal substitution: completion does not decrease significantly in the year after elections.

In columns (5)-(8), I look at the relationship between the electoral cycle and project completion in visible sectors. I find similar results to those in columns (1)-(4): projects in infrastructure and services are more likely to come to completion in year $t-1$ for an election taking place at time t. There is no evidence that this undermines completion in the year after the election (see columns (7)-(8)). Columns (9)-(12), however, show that projects in other (less visible) sectors are no more likely to be completed around the peak of the election cycle – none of the election year, or pre-election year dummies appear statistically significant in these specifications.

In Tables 6A and 6B, I look at a different measure of government effort – contracts awards allocated across years and across districts. This alternative measure provides the advantage that it is observed at a much higher frequency than project completion – in total, there are more than 33,000 contract awards listed for Africa as a whole between 2004-2014. I use two variables from the contracts data: a dummy for any contract awarded in the district in any particular year

(this is the dependent variable in Table 6A), and log amounts awarded (the dependent variable in Table 6B). For projects that span across multiple districts, I assume all districts receive the contract with equal probability.

Table 6A provides robust evidence that visible projects attract the bulk of contract awards around the peak of the election cycle. Columns (5)-(8) show a district is approximately 3 percentage points more likely to receive a contract award in both the election year and the year prior to the election (a 16% effect size). On the other hand, other projects are no more likely to receive contract awards in election years. The estimates in Table 6B provide consistent evidence with this: here I find magnitudes ranging from 32% to 43% for the effect of election years on contract amounts awarded by district. All of these estimates suggest that governments priorize implementation activities in visible sectors around the peak of the election cycle.

Finally, in Table 7, I use the district panel setup to test whether politicians prioritize ribbon-cutting (completing projects) over ground-breaking (starting projects) to sway voters before elections. Columns (1)-(2) show that projects in any sector are not significantly more likely to be started before major elections, while columns (5)-(6) and (9)-(10) show this result also holds for visible and other projects. Overall, these coefficients all but rule out the concern that incumbent governments launch projects to provide voters with a signal about future policies.

8.4 Democracy Reduces Delays in Visible Sectors

8.4.1 Difference-in-differences results

The results presented thus far indicate that upcoming elections accelerate the completion of projects in visible sectors, as voters reward the completion of these projects in the polls. Does this imply that delays for visible projects are reduced under democratic regimes on aggregate?

In Table 8, I present estimates from the difference-in-differences specification described in section 7.3 (equation (DID)), where I only exploit variation in democratic quality within countries. I only include country fixed effects in column (1), and then add start year fixed effects in column (2) and control variables in column (3). In these columns, I find that democracy reduces the likelihood that a project incurs any delay by 12 to 14 percentage points – about a 15% effect size. Note that the main effect of visibility is also positive and statistically significant, implying that these projects encounter more delays on average – perhaps because these projects are also more complex to implement for government agencies. From column (4) onwards, I weight the data by project size (in USD), and in column (5) I cluster standard errors by country.[31] I find that projects are less likely to incur delays by 22 percentage points in the specification with weights and country and year fixed effects (columns (4)-(5)), significant at 5%. Finally, in column (6) I

[31] Here the dataset includes 38 countries, which are all countries where at least one World Bank-funded project was implemented and completed between 1995-2014.

also include fixed effects for the task team leader (TTL) in charge of each project. The sample size falls by about 40% since many TTLs appear only once in the data and the corresponding projects are therefore omitted from the estimation. The coefficient of interest loses statistical significance in this specification, but its magnitude is statistically unchanged. Overall, these estimates suggest that democratic institutions improve project outcomes for projects in visible sectors relative to other sectors. Together with my other empirical results, Table 8 suggests democratization in Sub-Saharan Africa creates incentives for the World Bank's client governments to implement projects that are most visible to their electorate.

8.4.2 Interpretation

While the previous sections have argued elections have a causal, positive effect on project completion in visible sectors, policy quality and social welfare are affected by the delivery of projects in all sectors. Furthermore, the presence of electoral incentives is only one of several characteristics that distinguishes democratic regimes from other regimes in the sample. For example, political stability, checks and balances provided by the media and the judiciary, and other correlates of democracy may also affect policy outcomes. When measuring the aggregate effect of democratic institutions on policy across all political regimes in Sub-Saharan Africa, we would expect these other characteristics to also affect the sign and the impact of democracy.

Figure 3 shows suggestive, cross-country evidence that across the entire sample, the relationship between delays and a measure of democratic quality – the Polity IV score – is in fact strongly non-linear. Delays are measured either in years (in the top panel) or as a fraction of expected project duration (in the bottom panel). The most democratic regimes in the sample (e.g. Botswana, Benin, South Africa) incur fewer delays on average, but this is also the case for some of the region's most authoritarian regimes (e.g. Cameroon, Ethiopia, Zimbabwe). On the other hand, unstable regimes or regimes that experienced a civil war during the sample period (e.g. the Central African Republic, Cote d'Ivoire, or the Democratic Republic of the Congo) experience much longer delays on average. These patterns lead to an inverted U-shaped relationship between delays and democracy, when taking all regimes into consideration. Overall, Figure 3 shows that electoral accountability is most likely to improve incentives for politicians at higher levels of democracy - namely, for countries with a positive Polity IV score.

Figure 4 looks at projects in visible sectors and other sectors separately. Here I report local linear regression estimates from a regression of project delays on the Polity IV score. The resulting figure shows that the non-linearity observed across all projects in Figure 3 holds for both visible projects and other projects. However, the inflexion point occurs at lower levels of democracy for visible projects. The fact that the non-linearity also holds for other projects provides an interesting insight: at higher levels of democracy, delays in other projects *also* respond to improvements in the quality of government, implying that visibility matters most when other

characteristics of democracy (such as strong checks and balances or information provision from the media or civil society) are absent. This insight is consistent with the results presented in Appendix Table 3B, where media consumption offsets the effects of idiosyncratic visibility. In well-functioning democratic regimes, where citizens can learn about policy from a variety of sources, visibility plays a less important role.

9 Conclusion

This paper investigates how democratization and electoral politics affect government effort and its allocation across policy sectors in contemporary Sub-Saharan Africa. I focus on government projects funded by concessional loans from the World Bank using geocoded data on the universe of projects approved in Africa between 1995-2014. I test whether voters reward incumbents for completing projects before elections, and whether upcoming elections accelerate the completion of projects in any sector, visible sectors (infrastructure and social services), and other sectors. I provide causal evidence that the completion of visible projects yields sizeable electoral benefits for incumbent leaders in the subsequent election, using an instrumental variables strategy that exploits the workload of team leaders inside the World Bank. I then show that incumbents accelerate project completion to enhance their re-election prospects, and that in doing so, they prioritize projects in the most visible sectors. These effects are mitigated by the presence of media outlets which offset the idiosyncratic visibility of infrastructure projects and social programs.

Importantly, my main empirical findings are driven by the more democratic regimes in the sample, suggesting that the consolidation of democracy could significantly alter the course of policy-making across Africa. I find some evidence in support of this hypothesis: projects in visible sectors incur fewer delays in more democratic regimes. These results suggest that future research should investigate how political competition and accountability impact policy-making in contemporary African societies, and in particular how it affects the allocation of government resources across domains of policy. Institutional change in the region plausibly generates new forms of rent-seeking behavior from politicians (some of which have been widely documented in the literature), but it may also bring about a host of new opportunities for economic and political development, the nature and magnitude of which must be better understood and quantified. In Africa's hybrid or recent democracies, incumbent leaders face new incentives to build electoral coalitions that cut across all segments of society, and are increasingly held accountable for policy.

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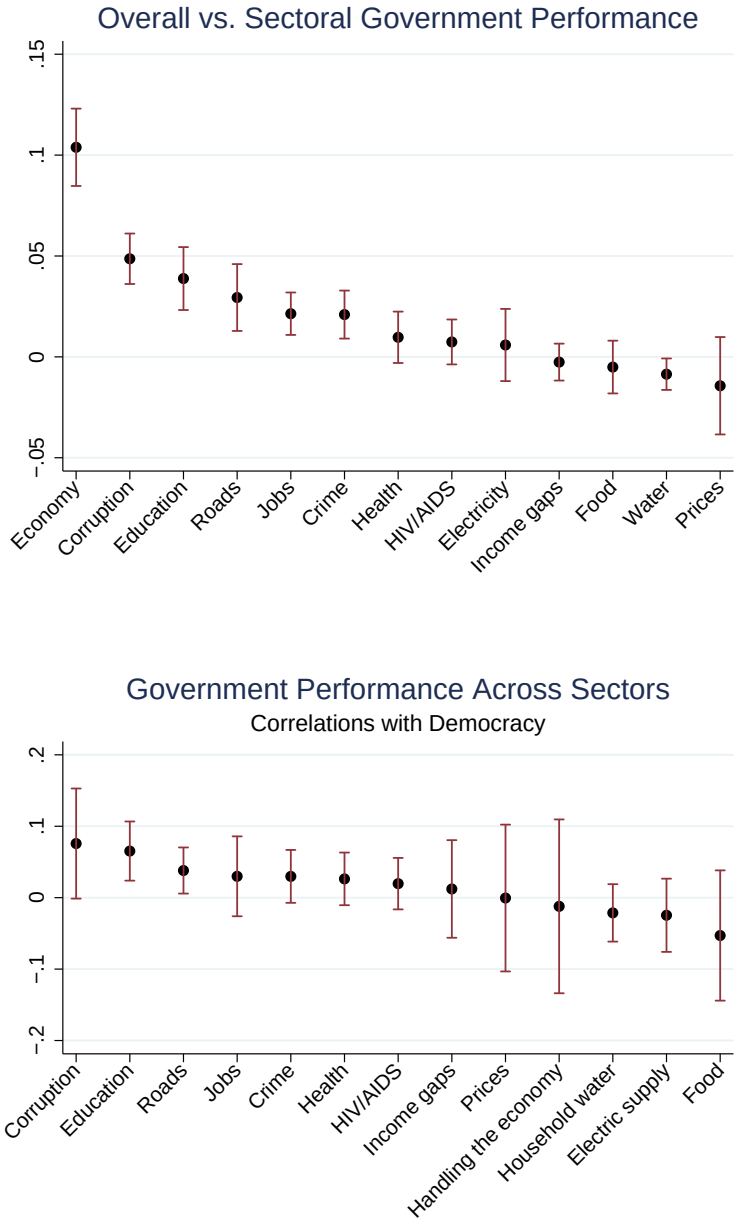
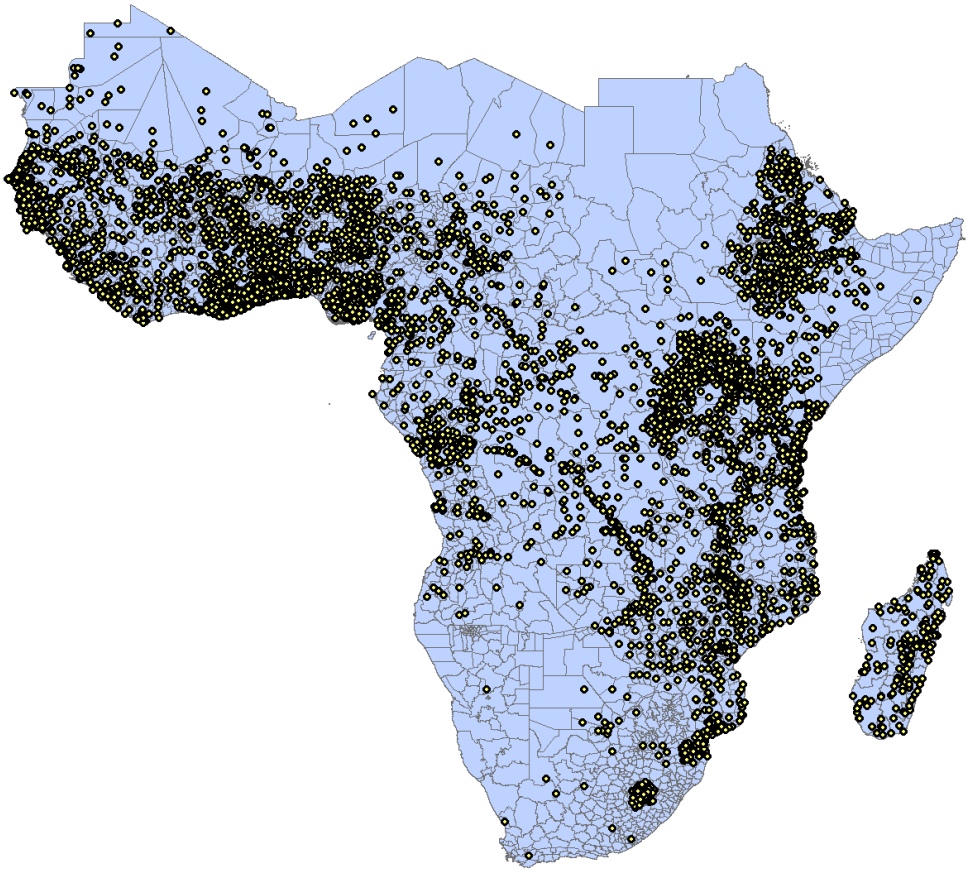
Figure 1: Perceptions of Government Performance Across Sectors



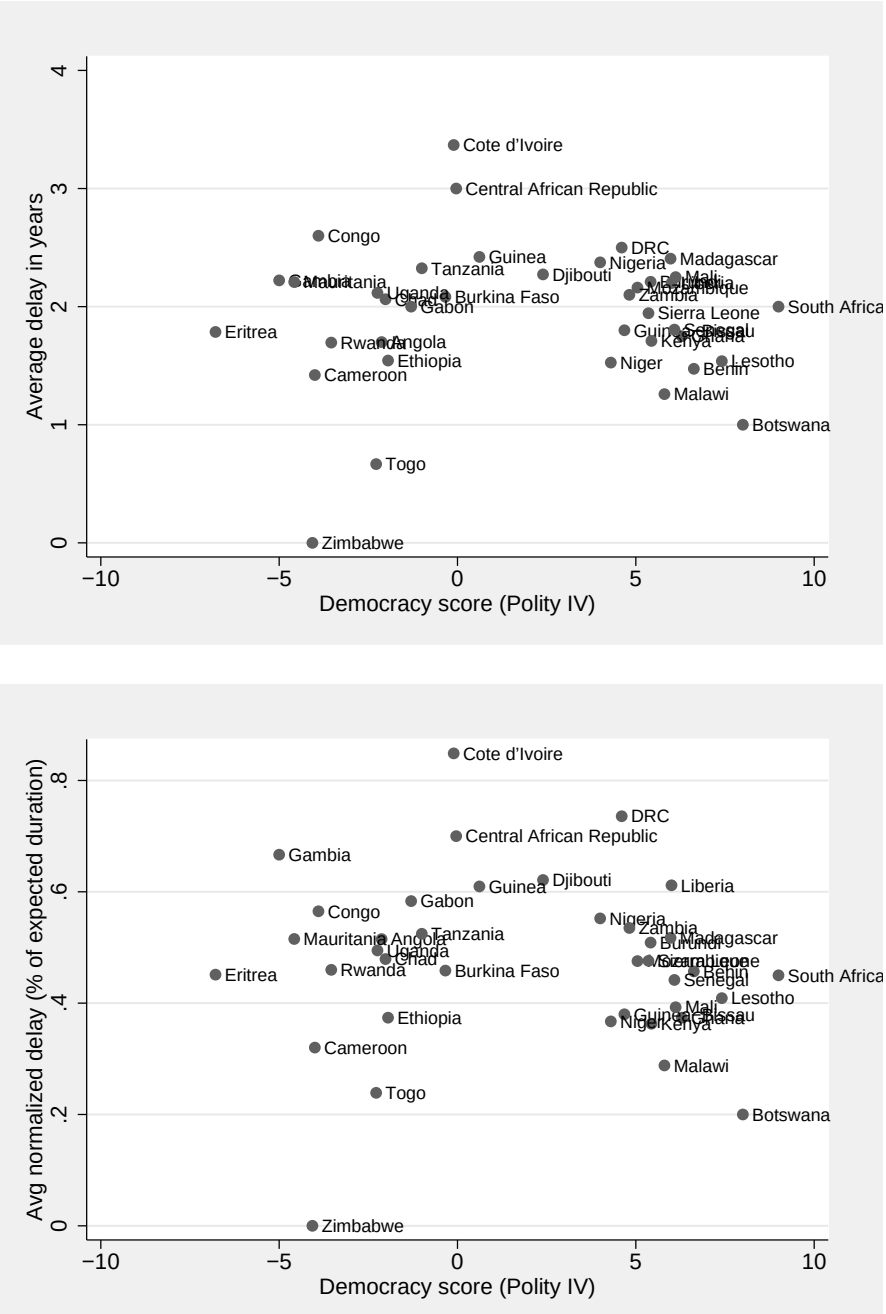
Both figures computed from rounds 1-5 of the Afrobarometer (excluding North Africa). The top panel displays OLS coefficients obtained from a regression of perceived overall government performance on perceived performance in specific sectors (all variables are standardized). The bottom panel shows coefficients obtained from a regression of perceived government performance across sectors on an index of democracy (the value of the Polity IV score in the relevant survey year).

Figure 2: Location of World Bank projects



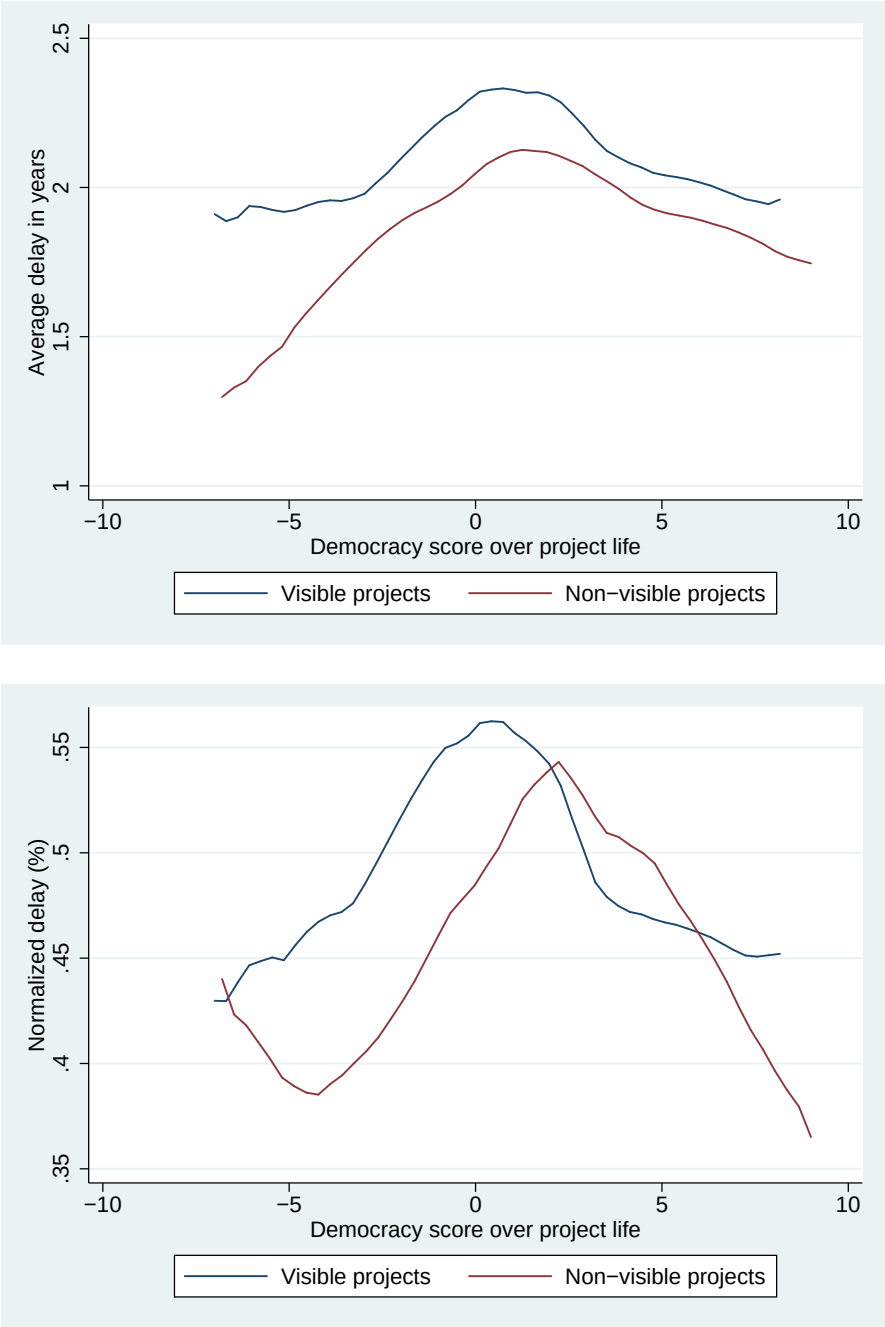
Every yellow dot indicates a project location site. District (ADM2) boundaries are indicated in grey.

Figure 3: Relationship between Project Delays and Democracy, Across Countries



These pictures present the cross-country relationship between average project delays (on the y-axis) and the Polity IV score (on the x-axis). Project delays are measured in years in the top panel, and as a fraction of expected project duration in the bottom panel.

Figure 4: Relationship between Project Delays and Democracy, Across Countries and Sectors



These pictures present local linear regression estimates from a regression of project delays on the Polity IV score using a dataset at the project-level. Project delays are measured in years in the top panel, and as a fraction of expected project duration in the bottom panel.

Table 1A: Summary Statistics

	Mean	SD	N
Project-level data			
Actual duration (years)	4.98	2.97	1,395
Expected duration (years)	4.80	1.37	1,039
Total commitments (million USD)	61.2	121.4	1,395
Total disbursements (million USD)	36.9	64.6	1,395
Agriculture	0.09	0.29	1,395
Education	0.09	0.28	1,395
Electricity	0.04	0.20	1,395
Finance	0.03	0.18	1,395
Governance	0.35	0.48	1,395
Health	0.16	0.37	1,395
Industry	0.05	0.21	1,395
Info/Comm	0.01	0.09	1,395
Transportation	0.09	0.28	1,395
Water/Sanitation	0.07	0.25	1,395
Visible projects	0.44	0.50	1,395
Other projects	0.56	0.50	1,395
SAPs	0.23	0.42	1,395
Borrower rating (1-6)	3.85	1.15	818
Delayed project	0.78	0.41	758
Years of delay	1.98	1.72	751
Electoral data			
Incumbent vote share (%)	0.53	0.27	4,582
Leave-out TTL Portfolio Size	0.48	0.96	4,582
Completed before election	0.14	0.35	4,582
Expected before election	0.13	0.34	4,582
Listen to radio every day	0.53	0.24	1,685
Watch TV every day	0.28	0.29	1,685
Read newspaper every day	0.10	0.17	1,685
Polity IV score	3.63	4.35	4,561
District-level data			
Any project started	0.08	0.28	71,298
Any project completed	0.03	0.17	71,298
Any visible project completed	0.02	0.14	71,298
Any other project completed	0.01	0.10	71,298
Election Year	0.18	0.39	71,298
Polity IV score	1.99	4.67	71,298

Table 1B: Correlates of Visibility

	Visible	Other	All
# project sites	13.52	8.37	11.15
Commitments (million USD)	74.6	43.2	60.1
Civil works contracts (million USD)	36.4	5.9	22.4
Environmental impact (%)	0.75	0.59	0.68
Geocoding precision (1:high-8:low)	3.47	4.70	4.03
# projects	608	797	1,395
# investment projects	579	497	1,076
IDA funded (%)	0.98	0.98	0.98
Actual duration (years)	6.25	5.99	6.13
Expected duration (years)	4.84	4.83	4.84
Any delay (%)	0.80	0.76	0.78
Delay (years)	2.08	1.85	1.98

Table 2: Electoral Effects of Project Completion, First Stage

	Dep Var is completion in:		
	(1) All sectors	(2) Visible sectors	(3) Other sectors
Instruments			
Expected before election X TTL portfolio (All)	-0.102***		
	[0.021]		
Expected before election X TTL portfolio (Visible)		-0.201***	0.003
		[0.026]	[0.018]
Expected before election X TTL portfolio (Other)		-0.074	-0.332***
		[0.059]	[0.066]
Main Effects			
Expected before election, All	0.317***		
	[0.039]		
TTL portfolio, All	0.057***		
	[0.010]		
Expected before election, Visible		0.443***	-0.029
		[0.044]	[0.036]
Expected before election, Other		-0.049	0.380***
		[0.056]	[0.051]
TTL portfolio, Visible		0.129***	-0.000
		[0.010]	[0.006]
TTL portfolio, Other		0.037	0.366***
		[0.024]	[0.035]
R^2	0.81	0.72	0.69
F-stat on excluded instruments	23.9	30.0	12.8
Controls	Yes	Yes	Yes
Observations	4582	4582	4582

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered by electoral constituency.
The IV is the interaction of TTL portfolio with expected completion in all/visible/other sectors.
All regressions include country-year fixed effects and constituency fixed effects.

Table 3: Electoral Effects of Project Completion

	All projects		By visibility	
	(1) OLS	(2) 2SLS	(3) OLS	(4) 2SLS
Completed before election, All projects	0.033*	0.260**		
	[0.017]	[0.131]		
Completed before election, Visible			0.045***	0.131**
			[0.016]	[0.061]
Completed before election, Other			-0.001	0.060
			[0.019]	[0.106]
Expected before election, All	-0.016	-0.056**		
	[0.015]	[0.026]		
Expected before election, Visible			-0.013	-0.028
			[0.015]	[0.020]
Expected before election, Other			-0.002	-0.009
			[0.021]	[0.026]
TTL portfolio, All	0.009	-0.001		
	[0.006]	[0.009]		
TTL portfolio, Visible			0.015**	0.007
			[0.006]	[0.008]
TTL portfolio, Other			-0.060***	-0.088**
			[0.021]	[0.040]
R^2	0.70	0.69	0.71	0.70
Mean vote share (%)	0.53	0.53	0.53	0.53
Controls	Yes	Yes	Yes	Yes
K-P Wald F-stat	.	23.9	.	11.0
Observations	4582	4582	4582	4582

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered by constituency.
All regressions include country-year fixed effects and constituency fixed effects.
The DV is the constituency-level vote share received by the presidential incumbent.
The endogenous regressor is a dummy for completion in all/visible/other sectors in years [*t-1*,*t*] for an election at time *t*. The IV is the interaction of TTL portfolio with expected completion. The bottom panel reports the main effects of TTL portfolio and expected completion.

Table 4: Hazard to Project Completion Across Sectors

	All Projects		Visible Projects		Other Projects	
	(1)	(2)	(3)	(4)	(5)	(6)
Years until next election	-0.095**		-0.133***		-0.008	
	[0.040]		[0.049]		[0.062]	
Election year		0.334*		0.400*		0.175
		[0.190]		[0.240]		[0.262]
Before election: t-1		0.179		0.476**		-0.449*
		[0.173]		[0.203]		[0.269]
Before election: t-2		0.189		0.364		-0.192
		[0.195]		[0.242]		[0.243]
Before election: t-3		0.264		0.249		0.040
		[0.175]		[0.210]		[0.255]
Log total commitments (USD)	-0.061	-0.071	-0.073	-0.114	0.109	0.135
	[0.084]	[0.084]	[0.109]	[0.114]	[0.111]	[0.101]
Expected duration at appraisal	-0.558***	-0.552***	-0.440***	-0.429***	-0.775***	-0.747***
	[0.072]	[0.070]	[0.088]	[0.089]	[0.102]	[0.094]
IDA project	0.221	-0.089	2.699**	2.586**	-0.398	-0.688
	[0.698]	[0.590]	[1.149]	[1.138]	[0.729]	[0.653]
Project is SAP	0.386	0.240	3.728***	3.692***	0.179	0.091
	[1.006]	[0.988]	[0.709]	[0.697]	[0.516]	[0.533]
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Projects	1395	1395	608	608	787	787
Start year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4794	5335	2624	2920	2170	2415

Note: * p<0.1, ** p<0.05, *** p<0.01. Projects are weighted by project size (in USD) throughout. Robust standard errors in parentheses. Controls include the expected project duration at appraisal, start year dummies, a dummy for SAPs, and log total commitments in USD. 'Visible' denote projects in education, health, water, transportation, and electricity.

Table 5: Government Effort in Election Periods: Project Completion

	All Projects				Visible Projects				Other Projects			
	(1) OLS	(2) 2SLS	(3) OLS	(4) 2SLS	(5) OLS	(6) 2SLS	(7) OLS	(8) 2SLS	(9) OLS	(10) 2SLS	(11) OLS	(12) 2SLS
Year (t+1)			-0.007	-0.002			-0.006	-0.003			-0.001	0.003
			[0.008]	[0.011]			[0.007]	[0.009]			[0.005]	[0.006]
Election Year	0.008	0.012	0.004	0.008	0.003	0.006	-0.001	0.002	0.006	0.007	0.006	0.008
	[0.010]	[0.014]	[0.010]	[0.012]	[0.008]	[0.010]	[0.008]	[0.009]	[0.007]	[0.009]	[0.006]	[0.009]
Year (t-1)	0.022*	0.031**	0.018*	0.027**	0.019*	0.025**	0.015*	0.021*	0.005	0.010	0.005	0.010
	[0.011]	[0.014]	[0.011]	[0.013]	[0.010]	[0.012]	[0.009]	[0.011]	[0.006]	[0.008]	[0.006]	[0.007]
Year (t-2)	0.002	0.003	-0.002	0.003	0.001	0.003	-0.003	0.000	-0.000	0.000	-0.000	0.003
	[0.009]	[0.012]	[0.008]	[0.010]	[0.008]	[0.010]	[0.007]	[0.009]	[0.005]	[0.007]	[0.005]	[0.006]
Year (t-3)	0.001	0.006			0.002	0.005			-0.001	0.002		
	[0.009]	[0.011]			[0.007]	[0.009]			[0.006]	[0.007]		
R^2	0.15	0.16	0.15	0.16	0.12	0.13	0.12	0.13	0.11	0.10	0.11	0.11
Mean	0.029	0.029	0.029	0.029	0.021	0.021	0.021	0.020	0.010	0.010	0.010	0.010
K-P F-stat		54.5		71.0		54.5		71.0		54.5		71.0
Observations	71248	66147	71248	69988	71248	66147	71248	69988	71248	66147	71248	69988

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors are two-way clustered by district and country-year.

This table reports OLS and 2SLS estimates of the district-level fixed effects panel model described in Equation (P1).

The dependent variable is a dummy for any project completed in the district in any sector (col. 1-4), any visible sector (col. 5-8), or any other sector (col. 9-12).

Table 6A: Government Effort in Election Periods: Contracts Awarded

	All Projects				Visible Projects				Other Projects			
	(1) OLS	(2) 2SLS	(3) OLS	(4) 2SLS	(5) OLS	(6) 2SLS	(7) OLS	(8) 2SLS	(9) OLS	(10) 2SLS	(11) OLS	(12) 2SLS
Year (t+1)			0.017	0.026			-0.003	0.007			0.022	0.035
			[0.015]	[0.019]			[0.012]	[0.015]			[0.017]	[0.022]
Election Year	0.021	0.013	0.025	0.035*	0.035**	0.031*	0.030*	0.043**	-0.014	-0.013	-0.004	0.007
	[0.016]	[0.018]	[0.017]	[0.020]	[0.016]	[0.017]	[0.016]	[0.019]	[0.016]	[0.019]	[0.018]	[0.023]
Year (t-1)	0.032*	0.026	0.035**	0.047**	0.033**	0.034**	0.028**	0.042**	0.004	0.008	0.013	0.026
	[0.017]	[0.018]	[0.016]	[0.020]	[0.014]	[0.017]	[0.013]	[0.017]	[0.018]	[0.020]	[0.018]	[0.022]
Year (t-2)	0.002	-0.003	0.005	0.008	0.024	0.012	0.018	0.027*	-0.032*	-0.020	-0.022	-0.013
	[0.017]	[0.019]	[0.018]	[0.022]	[0.015]	[0.018]	[0.013]	[0.016]	[0.016]	[0.019]	[0.019]	[0.024]
Year (t-3)	0.011	-0.017			0.005	-0.011			0.005	-0.010		
	[0.016]	[0.018]			[0.014]	[0.016]			[0.018]	[0.019]		
R^2	0.68	0.70	0.68	0.69	0.67	0.69	0.67	0.67	0.62	0.65	0.63	0.63
Mean	0.272	0.271	0.272	0.273	0.202	0.199	0.202	0.201	0.140	0.142	0.140	0.142
K-P F-stat		146.5		119.5		146.5		119.5		146.5		119.5
Observations	39560	35019	39560	38860	39560	35019	39560	38860	39560	35019	39560	38860

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors are two-way clustered by district and country-year.

This table reports OLS and 2SLS estimates of the district-level fixed effects panel model described in Equation (P1).

The dependent variable is a dummy variable for any contract awarded in the district in any sector (col. 1-4), any visible sector (col. 5-8), or any other sector (col. 9-12).

Table 6B: Government Effort in Election Periods: Log Contract Amounts Awarded

	All Projects				Visible Projects				Other Projects			
	(1) OLS	(2) 2SLS	(3) OLS	(4) 2SLS	(5) OLS	(6) 2SLS	(7) OLS	(8) 2SLS	(9) OLS	(10) 2SLS	(11) OLS	(12) 2SLS
Year (t+1)			0.170	0.264			-0.095	0.033			0.293*	0.419**
			[0.170]	[0.204]			[0.150]	[0.181]			[0.172]	[0.212]
Election Year	0.298	0.274	0.321*	0.459**	0.433**	0.467**	0.316*	0.513**	-0.133	-0.097	0.033	0.153
	[0.182]	[0.207]	[0.184]	[0.223]	[0.192]	[0.215]	[0.186]	[0.217]	[0.160]	[0.198]	[0.177]	[0.219]
Year (t-1)	0.343*	0.332	0.360**	0.502**	0.379**	0.475**	0.262	0.482**	0.008	0.041	0.167	0.270
	[0.192]	[0.212]	[0.175]	[0.219]	[0.183]	[0.220]	[0.163]	[0.199]	[0.183]	[0.205]	[0.176]	[0.214]
Year (t-2)	0.049	0.043	0.061	0.097	0.262	0.199	0.142	0.264	-0.334**	-0.194	-0.176	-0.083
	[0.201]	[0.223]	[0.194]	[0.236]	[0.185]	[0.214]	[0.157]	[0.186]	[0.170]	[0.201]	[0.183]	[0.226]
Year (t-3)	0.142	-0.121			0.107	-0.051			0.019	-0.100		
	[0.183]	[0.206]			[0.162]	[0.197]			[0.175]	[0.205]		
R^2	0.71	0.73	0.71	0.72	0.68	0.70	0.68	0.69	0.65	0.67	0.65	0.65
Mean	3.353	3.327	3.353	3.363	2.522	2.489	2.522	2.521	1.599	1.611	1.599	1.617
K-P F-stat		146.5		119.5		146.5		119.5		146.5		119.5
Observations	39560	35019	39560	38860	39560	35019	39560	38860	39560	35019	39560	38860

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors are two-way clustered by district and country-year.

This table reports OLS and 2SLS estimates of the district-level fixed effects panel model described in Equation (P1).

The dependent variable is the log of contract amounts awarded in the district in any sector (col. 1-4),

any visible sector (col. 5-8), or any other sector (col. 9-12).

Table 7: Groundbreaking or Ribbon-Cutting?
Starts and Completion across the electoral cycle

	All projects				Visible projects				Other projects			
	Start		Complete		Start		Complete		Start		Complete	
	(1) OLS	(2) 2SLS	(3) OLS	(4) 2SLS	(5) OLS	(6) 2SLS	(7) OLS	(8) 2SLS	(9) OLS	(10) 2SLS	(11) OLS	(12) 2SLS
Election Year	-0.011	-0.002	0.008	0.012	-0.005	0.001	0.003	0.006	-0.008	-0.003	0.006	0.007
	[0.019]	[0.023]	[0.010]	[0.014]	[0.016]	[0.020]	[0.008]	[0.010]	[0.011]	[0.014]	[0.007]	[0.009]
Year (t-1)	-0.001	-0.003	0.022*	0.031**	0.001	0.001	0.019*	0.025**	0.000	0.000	0.005	0.010
	[0.017]	[0.020]	[0.011]	[0.014]	[0.016]	[0.018]	[0.010]	[0.012]	[0.010]	[0.012]	[0.006]	[0.008]
Year (t-2)	-0.015	-0.005	0.002	0.003	-0.008	-0.004	0.001	0.003	-0.004	0.005	-0.000	0.000
	[0.017]	[0.021]	[0.009]	[0.012]	[0.016]	[0.018]	[0.008]	[0.010]	[0.010]	[0.013]	[0.005]	[0.007]
Year (t-3)	0.001	0.009	0.001	0.006	-0.002	0.008	0.002	0.005	0.004	0.007	-0.001	0.002
	[0.017]	[0.022]	[0.009]	[0.011]	[0.015]	[0.018]	[0.007]	[0.009]	[0.011]	[0.013]	[0.006]	[0.007]
R^2	0.22	0.23	0.15	0.16	0.18	0.19	0.12	0.13	0.14	0.15	0.11	0.10
Mean	0.082	0.083	0.029	0.029	0.059	0.060	0.021	0.021	0.028	0.029	0.010	0.010
K-P F-stat		54.5		54.5		54.5		54.5		54.5		54.5
Observations	71248	66147	71248	66147	71248	66147	71248	66147	71248	66147	71248	66147

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors are two-way clustered by district and country-year.

This table reports OLS and 2SLS estimates of the district-level fixed effects panel model described in Equation (P1).

In columns (1)-(2), (5)-(6), and (9)-(10), the dependent variable is a dummy variable for any project started in the district.

In columns (3)-(4), (7)-(8), and (11)-(12), the dependent variable is a dummy variable for any project completed in the district.

Table 8: Delays Incurred Across Regimes, by Visibility

	Project Delayed					
	(1)	(2)	(3)	(4)	(5)	(6)
Visible*Democracy	-0.116*	-0.147**	-0.141**	-0.219***	-0.219**	-0.190
	[0.062]	[0.066]	[0.066]	[0.083]	[0.104]	[0.145]
Visible project	0.110**	0.098*	0.196*	0.438***	0.438***	0.473**
	[0.047]	[0.050]	[0.109]	[0.157]	[0.127]	[0.211]
Democracy	0.222**	-0.336	-0.418	-0.835	-0.835	-1.340
	[0.093]	[0.650]	[0.661]	[0.907]	[0.844]	[2.000]
R^2	0.13	0.15	0.17	0.22	0.22	0.69
Mean	0.78	0.78	0.78	0.78	0.78	0.78
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	Yes	Yes	Yes	Yes
Sector dummies	No	No	Yes	Yes	Yes	Yes
Weights	No	No	No	Yes	Yes	Yes
Clustering by country	No	No	No	No	Yes	No
TTL FE	No	No	No	No	No	Yes
Observations	749	743	743	743	743	436

Note: * p<0.1, ** p<0.05, *** p<0.01. Robust standard errors in parentheses.

The democracy variable equals 1 if the avg Polity IV score over the project life is > 0. Year FE denote start year fixed effects. TTL FE denote Task Team Leader fixed effects. Controls include log total commitments in USD, the expected duration at appraisal, TTL portfolio, and a dummy for IDA-funded projects, interacted with democracy. Sector dummies are dummies for each of the 10 major project sectors (see text for details). Weights denote weighting by project size in total commitments (USD).

APPENDIX

Appendix 1: Alternative Model with Changing Politician Types

In the simple model described in section 5, the non-stationarity in the incumbent's effort levels follows naturally from two facts: there is depreciation of effort invested by the incumbent in earlier periods ($\delta < 1$); and voters are myopic in the sense that they only pay attention to the level of output achieved before the time T election.

The same predictions can be delivered by a similar model where voters observe the realized output for each project in every period until the election. In this case, politicians choose the optimal sequence of effort decisions $\{a^*_{vt}, a^*_{nt}\}_{t=1}^{T}$ subject to the evolution of voters' posteriors. Assume there is no depreciation ($\delta = 1$), voters noisily observe the output for both projects (z_{vt}, z_{nt}) in every period, and the incumbent's type now varies across time according to the following unit root:

$$\theta_{t+1} = \theta_t + \eta_t \tag{11}$$

where $\eta_t \sim N(0, \sigma^2_\eta)$. In this case, denoting as $\{m_t\}$ the sequence of posteriors about the incumbent's ability, in a rational expectations equilibrium the voter will update her beliefs according to:

$$m_{t+1} = \frac{h_t m_t + h_v(z_{vt} - \tilde{a}^*_{vt}) + h_n(z_{nt} - \tilde{a}^*_{nt})}{h_t + h_v + h_n} \tag{12}$$

where h_t denotes the precision on the posterior m_t. Denoting as $\hat{h}_t$ the precision on θ_{t+1} before observing $(z_{v,t+1}, z_{n,t+1})$, we have:

$$\hat{h}_t = h_t + h_v + h_n \tag{13}$$

From (11), by independence of θ_t and η_t we have:

$$\frac{1}{h_{t+1}} = \frac{1}{\hat{h}_t} + \frac{1}{h_\eta} \tag{14}$$

which together with (13) implies:

$$h_{t+1} = \frac{(h_t + h_v + h_n)h_\eta}{h_t + h_v + h_n + h_\eta} \tag{15}$$

In this modified setup, the incumbent will maximize the same objective function defined in (6) subject to (15). This yields the following FOC for each a_{vt} and a_{nt}:

$$[a_{vt}] : a^*_{vt} = \beta^{1-t}\left[\frac{R_2 D h_v}{h_{t-1} + h_v + h_n}\right]\prod_{i=t}^{T-1}\mu_i \tag{16}$$

$$[a_{nt}] : a^*_{nt} = \beta^{1-t}\left[\frac{R_2 D h_n}{h_{t-1} + h_v + h_n}\right]\prod_{i=t}^{T-1}\mu_i \tag{17}$$

where:

$$\mu_t = \frac{h_t}{h_t + h_v + h_n} \tag{18}$$

As before, the incumbent expends greater effort in project v in every period ($a^*_{vt} > a^*_{nt}\ \forall t$ since $h_v > h_n$) and when facing greater electoral competition (higher D). Furtheremore, effort in every project is strictly increasing in every period until the election since for any project $j \in \{v, n\}$:

$$\begin{aligned}
\frac{a_{j,t+1}}{a_{j,t}} &= \frac{1}{\beta}\frac{h_{t-1} + h_v + h_n}{h_t + h_v + h_n}\frac{1}{\mu_t} \\
&= \frac{h_{t-1} + h_v + h_n}{\beta h_t} \quad \text{from (18)} \\
&= \frac{h_{t-1} + h_v + h_n + h_\eta}{\beta h_\eta} \quad \text{from (15)} \\
&= \frac{h_{t-1} + h_v + h_n}{\beta h_\eta} + \frac{1}{\beta} \\
&> 1. \qquad \square
\end{aligned}$$

Appendix Table 1: List of Actual Elections, Observed Elections, and Elections Instrument (1995-2014)

Country	Actual Elections	Elections Instrument	In Electoral Data	Comments
Angola	2008, 2012	1997, 2002, 2007, 2012	2008, 2012	
Benin	1996, 2001, 2006, 2011	1996, 2001, 2006, 2011	2001, 2011	
Botswana	1999, 2004, 2009, 2014	1999, 2004, 2009, 2014	2004, 2009	
Burkina Faso	1998, 2005, 2010	1998, 2005, 2010	2005, 2010	2000 constitutional reform established 5-year term.
Burundi	2005, 2010	2010	No time-series data	Instrument reset in 2005 (first post-war election).
Cameroon	1997, 2004, 2011	1997, 2004, 2011	No time-series data	
CAR	1999, 2005, 2011	1999, 2005, 2011	No time-series data	
Chad	1996, 2001, 2006, 2011	1996, 2001, 2006, 2011	No time-series data	
Congo-Brazzaville	2002, 2009	1997, 2002, 2009	No time-series data	Instrument reset in 2002 (constitutional reform).
DRC	2006, 2011	2011	2006, 2011	Instrument reset in 2006 (first post-war election).
Djibouti	1999, 2005, 2011	1999, 2005, 2011	1999, 2005	
Equatorial Guinea	1996, 2002, 2009	1996, 2003, 2009	No time-series data	Instrument reset in 2002 (unscheduled election).
Eritrea	No elections.			
Ethiopia	1995, 2000, 2005, 2010	1995, 2000, 2005, 2010	No data	
Gabon	1998, 2005, 2009	1998, 2005, 2012	No time-series data	2009 election followed the death of Omar Bongo.
Gambia	1996, 2001, 2006, 2011	1996, 2001, 2006, 2011	1996, 2001, 2006, 2011	
Ghana	1996, 2000, 2004, 2008, 2012	1996, 2000, 2004, 2008, 2012	No time-series data	
Guinea	1998, 2003, 2010	1998, 2003, 2008	No time-series data	
Guinea-Bissau	1999, 2005, 2009, 2012, 2014	1999, 2004, 2009, 2014	No time-series data	
Kenya	1997, 2002, 2007, 2013	1997, 2002, 2007, 2012	1997, 2002, 2007	
Lesotho	1998, 2002, 2007, 2012	1998, 2003, 2007, 2012	2002, 2007, 2012	Instrument reset in 2002 (unscheduled election).
Liberia	1997, 2005, 2011	2011	2005, 2011	Instrument reset in 2005 (first post-war election).
Madagascar	1996, 2001, 2006, 2013	1997, 2001, 2006, 2011	2001, 2006	Instrument reset in 1996 (unscheduled election).
Malawi	1999, 2004, 2009, 2014	1999, 2004, 2009, 2014	1999, 2004, 2009, 2014	
Mali	1997, 2002, 2007, 2013	1997, 2002, 2007, 2012	2002, 2007	
Mauritania	1997, 2003, 2007, 2009, 2014	1997, 2002, 2007, 2012	No time-series data	
Mozambique	1999, 2004, 2009, 2014	1999, 2004, 2009, 2014	No times-series data	
Namibia	(1994), 1999, 2004, 2009, 2014	(1994), 1999, 2004, 2009, 2014	(1994), 2009	
Niger	1999, 2004, 2011	2004, 2009	No time-series data	Instrument reset in 1999 (coup).
Nigeria	1999, 2003, 2007, 2011	1997, 2003, 2007, 2011	2003, 2011	Instrument reset in 1999 (late election).
Rwanda	2003, 2010	2010	No data.	Instrument reset in 2003 (first post-conflict election).
Senegal	(1993), 2000, 2007, 2012	(1993), 2000, 2007, 2014	(1993), 2000, 2007, 2012	
Sierra Leone	1996, 2002, 2007, 2012	1996, 2001, 2007, 2012	2007, 2012	Instrument reset in 2002 (first post-war election).
South Africa	1999, 2004, 2009, 2014	1999, 2004, 2009, 2014	2004, 2009	
Sudan	1996, 2000, 2010		No times-series data.	
Swaziland	No elections.			
Tanzania	1995, 2005, 2010, 2015	1995, 2005, 2010, 2015	1995, 2005, 2010	
Togo	1998, 2003, 2005, 2010	1998, 2003, 2008, 2010	2010	Instrument reset in 2005 (unscheduled election).
Uganda	1996, 2001, 2006, 2011	1996, 2001, 2006, 2011	1996, 2001, 2006, 2011	
Zambia	1996, 2001, 2006, 2008, 2011	1996, 2001, 2006, 2011	1996, 2001, 2006, 2008, 2011	2008 election followed the death of Levy Mwanawasa.
Zimbabwe	1996, 2002, 2008, 2013	1996, 2002, 2008, 2014	2002, 2008, 2013	2013 constitutional reform established 5-year term.

Appendix Table 2A: Electoral Effects of Completion, Without controls

	All projects		By visibility	
	(1) OLS	(2) 2SLS	(3) OLS	(4) 2SLS
Completed before election, All	0.027	0.249*		
	[0.017]	[0.129]		
Completed before election, Visible			0.030**	0.122**
			[0.015]	[0.060]
Completed before election, Other			-0.008	0.034
			[0.017]	[0.085]
Expected before election, All	-0.023	-0.076**		
	[0.014]	[0.032]		
Expected before election, Visible			-0.022	-0.050**
			[0.014]	[0.022]
Expected before election, Other			-0.002	-0.011
			[0.022]	[0.025]
TTL portfolio, All	0.008	-0.002		
	[0.006]	[0.008]		
TTL portfolio, Visible			0.011**	0.002
			[0.006]	[0.008]
TTL portfolio, Other			-0.043**	-0.057
			[0.020]	[0.035]
R^2	0.70	0.69	0.70	0.70
Mean vote share (%)	0.53	0.53	0.53	0.53
Controls	Yes	Yes	Yes	Yes
K-P Wald F-stat	.	23.6	.	16.5
Observations	4582	4582	4582	4582

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered by constituency.
All regressions include country-year fixed effects and constituency fixed effects.
The DV is the local vote share for the incumbent in the presidential election.
The endogenous regressor is a dummy for completion in all/visible/other sectors in years [*t-1*,*t*] for an election at time *t*. The IV is the interaction of TTL portfolio with expected completion. The bottom panel reports the main effects of TTL portfolio and expected completion.

Appendix Table 2B: Electoral Effects of Completion, with TTL dummies

	All projects				By visibility			
	(1) OLS	(2) OLS	(3) 2SLS	(4) 2SLS	(5) OLS	(6) OLS	(7) 2SLS	(8) 2SLS
Completed before election, All	0.028*	0.037**	0.314*	0.274**				
	[0.014]	[0.018]	[0.174]	[0.121]				
Completed before election, Visible					0.045***	0.054**	0.131**	0.240**
					[0.016]	[0.022]	[0.061]	[0.111]
Completed before election, Other					-0.001	-0.066***	0.060	-0.135
					[0.019]	[0.026]	[0.106]	[0.165]
Expected before election, All	-0.013	-0.018	-0.050*	-0.023				
	[0.014]	[0.017]	[0.027]	[0.019]				
Expected before election, Visible					-0.013	-0.019	-0.028	-0.031
					[0.015]	[0.018]	[0.020]	[0.022]
Expected before election, Other					-0.002	0.004	-0.009	0.007
					[0.021]	[0.026]	[0.026]	[0.032]
TTL portfolio, All	0.007	0.015*	-0.028	-0.003				
	[0.006]	[0.009]	[0.022]	[0.013]				
TTL portfolio, Visible					0.015**	0.019**	0.007	0.015
					[0.006]	[0.009]	[0.008]	[0.010]
TTL portfolio, Other					-0.060***	0.015	-0.088**	0.027
					[0.021]	[0.026]	[0.040]	[0.063]
R^2	0.70	0.73	0.67	0.72	0.71	0.73	0.70	0.72
Mean vote share (%)	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TTL dummies	No	Yes	No	Yes	No	Yes	No	Yes
K-P Wald F-stat	.	.	12.2	30.9	.	.	11.0	9.4
Observations	4582	4582	4582	4582	4582	4582	4582	4582

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered by constituency. All regressions include country-year FE and constituency FE. In odd-numbered columns, the specification is identical to that estimated in Table 3. In even-numbered I include dummies for the TTLs active in the constituency at time *t-1*.

Appendix Table 2C: Electoral Effects of Completion, Specification with lags

	All projects				By visibility			
	(1) OLS	(2) OLS	(3) 2SLS	(4) 2SLS	(5) OLS	(6) OLS	(7) 2SLS	(8) 2SLS
Completed before election, All	0.028*	0.031*	0.314*	0.221**				
	[0.014]	[0.018]	[0.174]	[0.107]				
Completed before election, Visible					0.045***	0.054***	0.131**	0.137**
					[0.016]	[0.020]	[0.061]	[0.059]
Completed before election, Other					-0.001	-0.022	0.060	0.051
					[0.019]	[0.026]	[0.106]	[0.199]
Expected before election, All	-0.013	-0.020	-0.050*	-0.060**				
	[0.014]	[0.015]	[0.027]	[0.025]				
Expected before election, Visible					-0.013	-0.016	-0.028	-0.035
					[0.015]	[0.016]	[0.020]	[0.022]
Expected before election, Other					-0.002	0.001	-0.009	-0.023
					[0.021]	[0.025]	[0.026]	[0.068]
TTL portfolio, All	0.007	0.008	-0.028	-0.003				
	[0.006]	[0.006]	[0.022]	[0.009]				
TTL portfolio, Visible					0.015**	0.019***	0.007	0.017**
					[0.006]	[0.006]	[0.008]	[0.007]
TTL portfolio, Other					-0.060***	-0.054***	-0.088**	-0.071*
					[0.021]	[0.021]	[0.040]	[0.038]
R^2	0.70	0.71	0.67	0.69	0.71	0.71	0.70	0.71
Mean vote share (%)	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lags	No	Yes	No	Yes	No	Yes	No	Yes
K-P Wald F-stat	.	.	12.2	32.8	.	.	11.0	5.0
Observations	4582	4582	4582	4582	4582	4582	4582	4582

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered by constituency. All regressions include country-year FE and constituency FE. In odd-numbered columns, the specification is identical to that estimated in Table 3. In even-numbered I control for 3 additional lags of actual completion and expected completion at time *t-4*, *t-3*, and *t-2*.

Appendix Table 2D: Comparing instruments

	All sectors		
	(1) TTL level	(2) TTL level + interaction	(3) TTL interaction
Completed before election	0.248*	0.256***	0.260**
	[0.147]	[0.099]	[0.131]
Kleibergen-Paap F-stat (First-stage)	19.7	24.3	23.9
Hansen J-stat (Overid)		0.004	
Overid p-value		0.948	
Expected before election, All projects	-0.054*	-0.055**	-0.056**
	[0.030]	[0.022]	[0.026]
TTL portfolio, All projects			-0.001
			[0.009]
R^2	0.69	0.69	0.69
Controls	Yes	Yes	Yes
Observations	4582	4582	4582

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered by electoral constituency.
All regressions include country-year fixed effects and constituency fixed effects.

Appendix Table 3A: Electoral Effects of Completion Heterogeneity Across Regimes

	Project Completion, By visibility			
	(1) Democracy	(2) Not	(3) Democracy	(4) Not
Completed before election, Visible	0.084***	0.015	0.360**	-0.237
	[0.023]	[0.025]	[0.149]	[1.551]
Completed before election, Other	-0.044	0.017	-0.004	0.076
	[0.027]	[0.024]	[0.109]	[0.657]
Expected before election, Visible	-0.018	-0.013	-0.002	0.215
	[0.018]	[0.024]	[0.020]	[1.412]
Expected before election, Other	0.008	0.001	0.029	0.007
	[0.025]	[0.045]	[0.044]	[0.133]
TTL portfolio, Visible	0.040***	0.010	0.009	0.026
	[0.010]	[0.017]	[0.019]	[0.087]
TTL portfolio, Other	-0.059**	-0.024	-0.106**	-0.051
	[0.027]	[0.023]	[0.043]	[0.317]
R^2	0.69	0.84	0.66	0.82
Mean vote share (%)	0.49	0.66	0.49	0.66
Specification	OLS	OLS	2SLS	2SLS
Controls	Yes	Yes	Yes	Yes
K-P Wald F-stat	.	.	9.3	0.1
Observations	2950	890	2950	890

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered by constituency.

All regressions include country-year FE and constituency FE.

'Democracy' denotes countries with a positive Polity IV score at election time.

Appendix Table 3B: Electoral Effects of Completion
Heterogeneity with Media Consumption

	Radio		TV		Newspaper	
	(1)	(2)	(3)	(4)	(5)	(6)
Visible*Media consumption	-0.121*	-0.101	0.092	0.118*	0.347***	0.417***
	[0.072]	[0.071]	[0.061]	[0.061]	[0.120]	[0.123]
Other*Media consumption	0.018	0.038	0.154***	0.128**	0.252*	0.243*
	[0.108]	[0.105]	[0.057]	[0.054]	[0.143]	[0.141]
Media consumption	0.032	0.032	0.022	0.019	0.013	0.012
	[0.020]	[0.020]	[0.023]	[0.023]	[0.025]	[0.024]
Visible project completed	0.071*	0.067	-0.016	-0.017	-0.015	-0.016
	[0.041]	[0.042]	[0.021]	[0.023]	[0.017]	[0.018]
Other project completed	-0.001	-0.015	-0.028	-0.027	-0.005	-0.011
	[0.063]	[0.062]	[0.024]	[0.026]	[0.021]	[0.023]
R^2	0.92	0.92	0.92	0.92	0.92	0.92
Mean vote share (%)	0.57	0.57	0.57	0.57	0.57	0.57
Controls	No	Yes	No	Yes	No	Yes
Observations	1982	1982	1982	1982	1982	1982

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered by electoral constituency.
The dependent variable is the local vote share for the incumbent in the presidential election. All regressions are estimated via OLS and include country-year fixed and constituency FE. Media consumption is defined as the % of Afrobarometer respondents in the constituency who report consuming each type of outlet (radio, TV, or newspaper) every day.

Appendix Table 4A: Hazard to Project Completion:
Robustness to country dummies

	All Projects		Visible Projects		Other Projects	
	(1)	(2)	(3)	(4)	(5)	(6)
Years until next election	-0.076*		-0.119**		-0.014	
	[0.043]		[0.051]		[0.064]	
Election year		0.430**		0.493**		0.340
		[0.195]		[0.244]		[0.292]
Before election: t-1		0.278		0.621***		-0.274
		[0.176]		[0.213]		[0.310]
Before election: t-2		0.219		0.482*		-0.088
		[0.198]		[0.249]		[0.288]
Before election: t-3		0.332**		0.403**		0.249
		[0.162]		[0.203]		[0.269]
Log total commitments (USD)	-0.053	-0.064	-0.234*	-0.290**	0.598***	0.596***
	[0.114]	[0.107]	[0.128]	[0.121]	[0.205]	[0.200]
Expected duration at appraisal	-0.579***	-0.575***	-0.524***	-0.488***	-0.833***	-0.770***
	[0.070]	[0.068]	[0.095]	[0.092]	[0.094]	[0.086]
IDA project	-0.897	-0.963	24.074***	23.547***	-1.160*	-1.822***
	[0.630]	[0.671]	[1.353]	[0.414]	[0.633]	[0.652]
Project is SAP	1.581***	1.479***	3.341***	3.440***	1.080	1.128
	[0.603]	[0.555]	[0.714]	[0.706]	[0.884]	[0.708]
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes
Projects	1395	1395	608	608	787	787
Observations	4794	5335	2624	2920	2170	2415

Note: * p<0.1, ** p<0.05, *** p<0.01. Projects are weighted by project size (in USD).
Robust standard errors in parentheses. Controls include the expected project duration, start year dummies, a dummy for SAPs, and log total commitments in USD.
'Visible' denote projects in education, health, water, transportation, and electricity.

Appendix Table 4B: Hazard to Project Completion:
Robustness to alternative specifications

	All Projects			Visible Projects			Other Projects		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Years until next election	-0.095**	-0.095***	-0.078***	-0.133***	-0.133***	-0.090**	-0.008	-0.008	-0.039
	[0.040]	[0.035]	[0.029]	[0.049]	[0.044]	[0.037]	[0.062]	[0.048]	[0.045]
Log total commitments (USD)	-0.061	-0.061	-0.130***	-0.073	-0.073	-0.290***	0.109	0.109	0.044
	[0.084]	[0.127]	[0.048]	[0.109]	[0.159]	[0.067]	[0.111]	[0.185]	[0.086]
Expected duration at appraisal	-0.558***	-0.558***	-0.469***	-0.440***	-0.440***	-0.388***	-0.775***	-0.775***	-0.603***
	[0.072]	[0.088]	[0.055]	[0.088]	[0.122]	[0.076]	[0.102]	[0.101]	[0.075]
IDA project	0.221	0.221	0.563	2.699**	2.699**	1.007*	-0.398	-0.398	0.325
	[0.698]	[0.733]	[0.547]	[1.149]	[1.202]	[0.555]	[0.729]	[0.855]	[0.797]
Project is SAP	0.386	0.386	0.164	3.728***	3.728***	3.538***	0.179	0.179	-0.567
	[1.006]	[0.978]	[0.886]	[0.709]	[0.688]	[0.561]	[0.516]	[0.609]	[1.040]
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Standard Errors	Cluster	Cluster	Robust	Cluster	Cluster	Robust	Cluster	Cluster	Robust
Weights	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No
Projects	1395	1395	1395	608	608	608	787	787	787
Observations	4794	4794	4794	2624	2624	2624	2170	2170	2170

Note: * p<0.1, ** p<0.05, *** p<0.01. Robust standard errors in parentheses, unless otherwise indicated.

'Cluster' indicates standard errors clustered by country. Weights denote weighting by project size in total commitments (USD).

'Visible' denote projects in education, health, water, transportation, and electricity.

Appendix Table 4C: Hazard to Project Completion:
Specifications with the Elections instrument

	All Projects		Visible Projects		Other Projects	
	(1)	(2)	(3)	(4)	(5)	(6)
Years until next election	-0.055	-0.060	-0.102*	-0.142***	0.003	0.035
	[0.043]	[0.041]	[0.053]	[0.050]	[0.059]	[0.063]
Log total commitments (USD)	-0.056	-0.060	-0.267**	-0.178***	0.617***	0.050
	[0.117]	[0.048]	[0.128]	[0.064]	[0.207]	[0.080]
Expected duration at appraisal	-0.602***	-0.246***	-0.543***	-0.191***	-0.852***	-0.290***
	[0.071]	[0.044]	[0.098]	[0.060]	[0.098]	[0.069]
IDA project	-0.881	0.574	23.603***	0.916	-1.184*	0.306
	[0.654]	[0.562]	[1.338]	[0.942]	[0.651]	[0.691]
Project is SAP	1.606***	0.729**	3.331***	1.289*	0.998	0.404
	[0.602]	[0.314]	[0.728]	[0.684]	[0.884]	[0.393]
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Model	Cox	Poisson	Cox	Poisson	Cox	Poisson
Projects	1395	1395	608	608	787	787
Observations	4702	4671	2586	2566	2116	2105

Note: * p<0.1, ** p<0.05, *** p<0.01. Robust standard errors in parentheses. Data weighted by project size.
The regressions in odd-numbered columns are Cox regressions on the elections instrument.
The regressions in even-numbered columns are Poisson regressions instrumenting for years until the election (GMM). 'Visible' is defined as in the previous tables.

Appendix Table 5A: District Panel,
Project Starts and Expected Completion Dates

	Started		Expected		Complete	
	(1)	(2)	(3)	(4)	(5)	(6)
Election Year	-0.011	-0.002	0.009	0.015	0.008	0.012
	[0.019]	[0.023]	[0.013]	[0.016]	[0.010]	[0.014]
Year (t-1)	-0.001	-0.003	0.003	0.008	0.022*	0.031**
	[0.017]	[0.020]	[0.014]	[0.016]	[0.011]	[0.014]
Year (t-2)	-0.015	-0.005	0.014	0.006	0.002	0.003
	[0.017]	[0.021]	[0.015]	[0.017]	[0.009]	[0.012]
Year (t-3)	0.001	0.009	-0.008	0.002	0.001	0.006
	[0.017]	[0.022]	[0.012]	[0.014]	[0.009]	[0.011]
R^2	0.22	0.23	0.19	0.20	0.15	0.16
Mean	0.082	0.083	0.053	0.049	0.029	0.029
Specification	OLS	2SLS	OLS	2SLS	OLS	2SLS
Observations	71248	66147	71248	66147	71248	66147

Note: * p<0.1, ** p<0.05, *** p<0.01.

Standard errors are two-way clustered by district and country-year.

Appendix Table 5B: District Panel, Alternative Specifications

	Completed projects (All Sectors)						
	(1) Baseline	(2) Alter Clus	(3) No Leader FE	(4) Time Trends	(5) Weight 1	(6) Weight 2	(7) GMM
Election Year	0.016	0.016	0.012	0.013	0.018	0.041	0.018***
	[0.012]	[0.015]	[0.012]	[0.011]	[0.012]	[0.027]	[0.003]
Year (t-1)	0.026**	0.026*	0.024**	0.029**	0.035***	0.073**	0.035***
	[0.012]	[0.015]	[0.012]	[0.012]	[0.013]	[0.033]	[0.004]
Year (t-2)	0.007	0.007	0.007	0.010	0.014	0.019	0.010***
	[0.010]	[0.011]	[0.010]	[0.010]	[0.011]	[0.025]	[0.003]
Year (t-3)	0.005	0.005	0.004	0.008	0.006	0.031	0.008**
	[0.010]	[0.012]	[0.010]	[0.010]	[0.010]	[0.024]	[0.003]
Mean	0.038	0.038	0.038	0.038	0.038	0.038	0.045
Observations	71248	71248	71298	71248	71248	70654	55454

Note: * p<0.1, ** p<0.05, *** p<0.01.

Column (1) reports estimates from the baseline specification (column (5) of Table 6).

In column (2) I cluster standard errors by country.

In column (3) I remove leader fixed effects.

In column (4) I include country-specific linear time trends.

In column (5) the regression is weighted by district area in square kilometers (winsorized).

In column (6) the regression is weighted by district population.

In column (7) the model is estimated via GMM with 4 lags of the dependent variable.

Appendix Table 6: DID estimation,
with the continuous democratic index

	Project Delayed					
	(1)	(2)	(3)	(4)	(5)	(6)
Visible*Polity score	-0.014**	-0.017**	-0.017**	-0.025**	-0.025**	-0.013
	[0.007]	[0.008]	[0.007]	[0.010]	[0.011]	[0.016]
Visible project	0.071**	0.053	0.180*	0.413**	0.413***	0.410**
	[0.034]	[0.035]	[0.105]	[0.163]	[0.146]	[0.207]
Polity score over project life	0.023	-0.147	-0.158*	-0.122	-0.122	-0.145
	[0.015]	[0.092]	[0.092]	[0.108]	[0.089]	[0.261]
R^2	0.13	0.15	0.17	0.22	0.22	0.69
Mean	0.78	0.78	0.78	0.78	0.78	0.78
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	Yes	Yes	Yes	Yes
Sector dummies	No	No	Yes	Yes	Yes	Yes
Weights	No	No	No	Yes	Yes	Yes
Clustering by country	No	No	No	No	Yes	No
TTL FE	No	No	No	No	No	Yes
Observations	749	743	743	743	743	436

Note: * p<0.1, ** p<0.05, *** p<0.01. Robust standard errors in parentheses.
Year FE denote start year fixed effects. TTL FE denote Task Team Leader fixed effects. Controls include log total commitments in USD, the expected duration at appraisal, TTL portfolio, and a dummy for IDA-funded projects, interacted with democracy. Sector dummies are dummies for each of the 10 major project sectors (see text for details). Weights denote weighting by project size in total commitments (USD).