



PhD Politics

***The Political Determinants of
Public Infrastructure Investment in
Middle Income Countries:
The Visibility and Targetability of White
Elephants***

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Statement of Originality

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A handwritten signature in black ink that reads "Salmashhour". The signature is written in a cursive style with a large initial 'S'.

Date: 11/04/2025

Abstract

Middle Income Countries are often stuck in a trap, due to the political distortions that drive their allocation of investment. This dissertation explores these political determinants of public infrastructure investment in Middle-Income Countries [MICs], focusing on how political competition drives the allocation of investment. I argue that insecure incumbents in MICs, prioritize investments in economic infrastructure over social infrastructure due to their higher visibility and targetability, which make them politically valuable. Theoretically, when accountability is low, this misallocation can lead to inefficient, wasteful investments and "White Elephants" that hinder development. By adopting a political economy approach, the dissertation disaggregates investment categories by function to examine the visibility and targetability mechanisms and their distortionary effects on resource allocation. Using empirical analysis of MICs and a detailed case study, this dissertation shows how low horizontal and vertical accountability mean that politics can distort the allocation of investment, resulting in overinvestment in potentially wasteful-albeit politically valuable- economic infrastructure at the expense of -often-more necessary social investments. The findings contribute to understanding, not only why MICs overinvest in economic infrastructure, but also why investment in MICs often fails to translate into growth, providing critical insights into the political dynamics behind resource misallocation and its implications for escaping the MIT.

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Abbreviations

MIC	Middle Income Country
MIT	Middle Income Trap
PBC	Political Budget Cycle
WE	White Elephants
SPEED	Statistics on Public Expenditure for Economic Development
PCSE	Panel Corrected Standard Errors
DV	Dependent Variable
FE	Fixed Effects
RE	Random Effects
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
WB	World Bank
SGI	Sustainable Governance Index
WBWGI	World Bank World Governance Indicators
NAC	New Administrative Capital
COFOG	United Nations Classification of the Functions of Government

Chapter 1: Introduction

1.1. Summary

One of the main reasons why Middle-Income Countries[MICs] are stuck in the Middle-Income Trap[MIT] is the fact that they misallocate their investment for political purposes. Empirical evidence suggests that in MICs this misallocation favors economic infrastructure at the expense of social infrastructure, and that it hinders the productivity of these investments(IFPRI, 2015, Doner, 2020, Imam and Temple, 2024, Vandenberg et al., 2015). By focusing on different categories of economic and social infrastructure, I take a political economy approach to examine the political drivers of this misallocation. This dissertation focuses on MIC's where I argue that in MICs, economic infrastructure investment is more visible and targetable than social investment, which makes it more politically valuable and more prone to overinvestment when political competition is high. To test this argument, I examine how political competition affects different categories of spending in MICs with low horizontal and vertical accountability, where theoretically the distortive effect politics will have on investment allocation is increased. This allows me to test whether indeed economic infrastructure is more visible and targetable and subsequently politically valuable in these contexts, where the efficiency of this politically driven investment will most likely be compromised.

1.2. Motivation

This is important to understand, because it is generally believed that the misallocation of investment is one of the main reasons why investment is not productive enough in MIC's. Subsequently it can explain why many of these countries are stuck in the MIT and why they build White Elephants[hereafter WE].. Conventional thinking posits that the

¹ According to Robinson and Torvik [2005] White Elephants are large scale, visible investments which result in negative social or economic outcomes and inefficient redistribution of wealth.

misallocation of investment is more likely to occur and be more harmful in MICs than in developed countries (Shi and Svensson, 2006, Streb et al., 2009). This misallocation is believed to come about as a result of overly politicized project selection in these contexts which creates wasteful investments and WE (Terrill, 2021, James, 1996, Robinson and Torvik, 2005). And research today acknowledges that this political allocation of investment, hinders its productivity and is one of the main explanations of the MIT (ECLAC and Caribbean, 2016, Jaimurzina and Sanchez, 2017, Bogart, 2022, Irshad et al., 2023).

But this argument is not straight forward, and politics or political competition in particular was initially thought to have a positive effect on the allocation of spending. However, recently it has emerged that political competition will only have a positive effect on the allocation of spending in contexts with high accountability, whether this is from the public [vertical accountability] or from institutions [horizontal accountability]. On the other hand, if accountability is compromised, political competition will distort the allocation of spending away from the most productive uses, and towards more short term, visible or targetable investments. Since my main aim is to understand the 'distortionary' effect politics can have on spending and its efficiency, in this dissertation, I only focus on MICs with low levels of horizontal or vertical accountability. According to the United Nations, horizontal accountability refers to accountability from institutions and refers to the constraints and checks and balances that an incumbent is subject to. Vertical accountability refers to the principal agent relationships where the voters or the public hold the government to account (Ocampo and Arteaga, 2015).

Misallocation is the politically motivated allocation of spending, that theoretically leads to over or underinvestment. Overinvestment in more visible and targetable sectors is a political strategy that incumbents use to increase their political support (Jacques and Ferland, 2021). And indeed, in MIC's there is a paradox by which it has been found that the high economic contribution of certain investments seems to coincide with

underinvestment or a relative neglect of them, whereas less productive investments are overinvested in (Mogues, 2015, Imam and Temple, 2024). Empirically MICs have been found to overinvest in economic infrastructure at the expense of social infrastructure and waste resources by throwing ‘cash at the trap’ (UNICEF, 2022, Diwan, 2020, Atolia et al., 2017). As a result, returns on investment in MICs are very low, especially with regards to large scale economic infrastructure megaprojects (Devarajan et al., 1996, Magwedere and Marozva, 2022, Sobjak, 2018, Akitoby et al., 2006). This is even more important to understand today, because since 2012, there has been a growing trend in megaproject construction around the world and particularly in MIC’s where larger projects are being built in greater numbers than ever (Ougaard, 2017, Shatkin, 2022, Gurara et al., 2020, Gurara et al., 2017).

The solutions put forth by the literature to escape the MIT all involve changing the composition of public investment. Therefore, to understand the contribution of investment to development and why not all investment is productive, especially in MIC’s, the political drivers of the allocation of investment must be fully understood. This will allow economic commentators, policy makers and researchers in general to be able to identify earlier on when misallocation is at work and catch the symptoms of wasteful investments before it is too late.

1.3. Gap

Previous literature on the effect of politics on spending has either focused on elections and visibility or partisan cycles and targetability. Either way, research has primarily focused on the role of elections on the manipulation of spending. This has been primarily analyzed as revenues versus taxes and current versus capital spending. Visibility and targetability have also been analyzed separately and it has not been acknowledged that incumbents can use a combination of both mechanisms to garner political support.

The focus of research on democracies and developed contexts means that manipulation in the contexts where arguably it is the most harmful has been ignored. And the scarce

research that looks at manipulation within the categories of spending has predominantly been case studies that have focused on one category of spending at a time and on local or municipal spending as a response to elections. To my knowledge there have been no large N studies on a national level that look at the visibility and targetability of different categories of spending.

The limited research that does disaggregate spending, primarily looks at the categories of spending that tend to increase prior to elections but not why these categories are favoured. Although, some research does indeed focus on how different ideological or partisan divides do mean that different categories are targetable; this is only empirically examined in advanced democracies and contexts where partisan divides are clear, which is not the case in many MICs. Research has also automatically assumed that transfers are more visible, based on Rogoff (1990) and interpreted increases in transfers as evidence of the visibility mechanism. If transfers did not increase in line with elections, this was interpreted as evidence that the visibility mechanism was not in play. Importantly, there is no empirical evidence of what misallocation is shifted towards in a large sample of MICs that includes non-democracies. As a result, the evidence on which forms of spending are visible and targetable is inconclusive.

By failing to explain which investments are more politically valuable in contexts where the effect of politics on spending is more likely to be distortionary, the literature has neglected to explain why MICs overinvest in -often wasteful-economic infrastructure at the expense of social infrastructure and why their investments are less productive. It has also not been able to tell when manipulation is at work and economists continue to be surprised when not all investment leads to growth in these contexts. As a result of these shortcomings, the symptoms of wasteful investments have been difficult to identify, and it has been difficult to provide policy advice to countries with severe resource misallocation.

It is also puzzling that no research has linked the phenomenon of WE to the visibility and targetability mechanisms that are associated with budget manipulations. Especially since WE are believed to be selected either on the basis of servicing clientelist networks via targetability or political prestige via more visible projects, with little regard for likely economic and financial returns.

1.4. Research Questions

To understand the phenomenon of wasteful investments and to fill this research gap, this dissertation studies the political determinants of public infrastructure investment in MICs. Specifically, I look to answer the question of: *how does political competition affect the allocation of investment?* I focus on contexts where theoretically this misallocation is more likely to be harmful and wasteful.

1.5. What does the literature have to say?

Although the literature acknowledges that politics can drive spending decisions; how this happens has mainly been discussed as a response to elections, within the Political Budget Cycle [PBC] literature. As a result, incentives beyond elections and contexts beyond developed democracies have not received much attention.

This is despite the reality that it is a stylized fact that both democratic and non-democratic leaders aim to gain office and stay in power. As a result, when political competition increases-whether through elections or elite contestation- the insecurity that arises pushes leaders to become more responsive to their main supporters by using visible investments to signal their competence and targeting spending towards key groups to 'buy' support.

But as I mentioned above, the role of political competition on spending has not been straightforward. This is because political competition was initially deemed to have a positive effect on the allocation and efficiency of spending. However, more recently it has been acknowledged that political competition can create wasteful misallocation of

spending in certain contexts, where groups being targeted are narrow and uninformed, or where institutional constraints do not limit the ability of the incumbent to narrowly target investments (Pierskalla and Sacks, 2018, Brender and Drazen, 2008). However, regardless of whether the effect of political competition is positive or negative, the literature has consistently acknowledged that it pushes incumbents to bias investment towards what is more politically valuable (Shmuel, 2020, Gonzalez, 2002). This makes it key to explaining the differential attention that different categories of investment receive in different contexts.

It has been acknowledged more recently that political competition will only increase the efficiency of investment if it is accompanied by increased accountability from an informed public (Brender, 2003) and strong institutions (Gonzalez, 2002). If not, it can have an adverse effect on the allocation of spending by encouraging manipulation towards more visible or targetable categories, which can compromise the efficiency of spending (Haughwout, 2000, Blais et al., 2010, Mogues, 2015, Barthel and Vignal, 2014, Buchanan and Wagner, 1977, Stokes et al., 2013). Therefore, when political competition increases in contexts where the public and institutions cannot or do not hold the incumbent accountable, this manipulation of investment can create misallocation, waste, and wasteful investments².

PBC theories clearly state that incumbents have an incentive to bias spending towards visible categories before elections in order to please voters (Rogoff, 1990). But empirical evidence has been limited and contradictory. This is because, the nature and existence of these cycles seems to change according to contextual factors (Wittman, 1989). And one of the reasons why evidence was hard to come by was because research used aggregate data (Labonne, 2016). Another reason was that not all people were fooled by this manipulation; this means that it was not successful at signaling competence in all

² See Figure 1-2 Below

contexts. It has therefore emerged that this manipulation will only be politically rewarding when voters are less sophisticated and informed. Subsequently it has been found that visibility style PBCs would be more pronounced and harmful in MICs (Shi and Svensson, 2006), weak democracies (Gonzalez, 2002), or new democracies (Brender and Drazen, 2008), where voters are usually less informed and experienced, and thus, where manipulation towards visible investments can be expected to be more effective at signaling competence.

Studies also found that weak and new democracies were more prone to harmful manipulations due to the less developed governance structures and weaker institutions that they have. This allows decision makers more discretion to use the budget for their own personal motives, by targeting spending towards narrow interests. Although this has mainly been the focus of Partisan PBC theories, more recently, targeting elites with spending has been recognized as a mechanism of budget manipulation (Persson and Tabellini, 2002). Yet, evidence of this, in non-democracies has been limited. Therefore, the PBC literature acknowledges two mechanisms by which incumbents can manipulate investment towards more politically valuable categories for political support. The first is signaling competence to uninformed groups via investing in visible categories and the second is targeting key groups with their preferred investments, when corruption is high or institutional constraints are low. I outline both mechanisms below.

1.5.1. Information and Visibility

The "visibility" hypothesis, proposed by Rogoff (1990) suggests that politically insecure incumbents manipulate public spending toward more visible investments to signal competence, especially in low-information contexts, where the population struggles to evaluate less visible, long-term investments. While Rogoff emphasizes immediate visibility, like current spending, as politically valuable, other research³ argues that in developing countries, intrinsically visible investments, such as economic infrastructure,

³ For example, Gjerlow and Knutsen[2019]; Wong[2020]; Heald[2012]; Fox[2015] and Mejia Acosta and Tullin[2019]

may be more politically valuable. These studies suggest that in low-transparency or low-information contexts, intrinsically visible investments are preferred over social or human infrastructure. However, when populations are better informed or media transparency is robust, intrinsic visibility's influence diminishes, and voters can assess competence without relying on overt signals. Despite these theoretical insights, there is a lack of empirical examination across diverse political systems, including non-democracies, to validate these claims.

1.5.2. Institutions and Targetability

According to Mueller and Murrell (1986), more political competition allows more interest groups to be catered to. This was initially thought to have a positive economic effect; but as Olson (1993) points out, when more interest groups are catered for in the political calculus, the support for targeted spending may increase. This may compromise the efficiency of this spending, especially if this spending is narrowly targeted.

The second mechanism is therefore the 'targetability' hypothesis introduced by Drazen and Eslava (2010) which argues that if an incumbent is able to target investment towards narrow interests, they will do so to buy support when political competition is high (Arvate, 2013). Here it is believed that incumbents can garner political support from key groups by targeting them with the investments that they prefer. And although, again, current spending and transfers were initially deemed more targetable, today there is evidence that economic infrastructure, like construction works are more targetable towards narrow interests and via the preferential contracts and the job opportunities they create (Drazen, 2000, Milesi-Ferretti et al., 2001, Vergne, 2009).

Like information and transparency, studies that focus on the targetability of investment, highlight that the institutional governance structure can mitigate the harmful effect targeting will have on the efficiency of investments by increasing horizontal accountability and reducing opportunities for targeting investments to narrow groups (Kwon, 2005, Carkoglu and Aytac, 2014). Nonetheless, the literature is still

inconclusive and even with regards to targetability, different studies have specified different categories of investment as more targetable (Fried, 2012, Kroth, 2012, Coady et al., 2006, Brollo and Nannicini, 2012a). For example, there are arguments that social infrastructure or transfer payments can be targetable, but only to broader groups. This targeting will only take place when there are higher quality institutions that prevent an incumbent from narrowly targeting investments towards elites (Pierskalla and Sacks, 2018, Uribe, 2013). Whereas when institutional quality is low and corruption is widespread there is evidence that suggests that incumbents will prefer to and be able to target economic infrastructure investments towards key elites (Ferris and Dash, 2019).

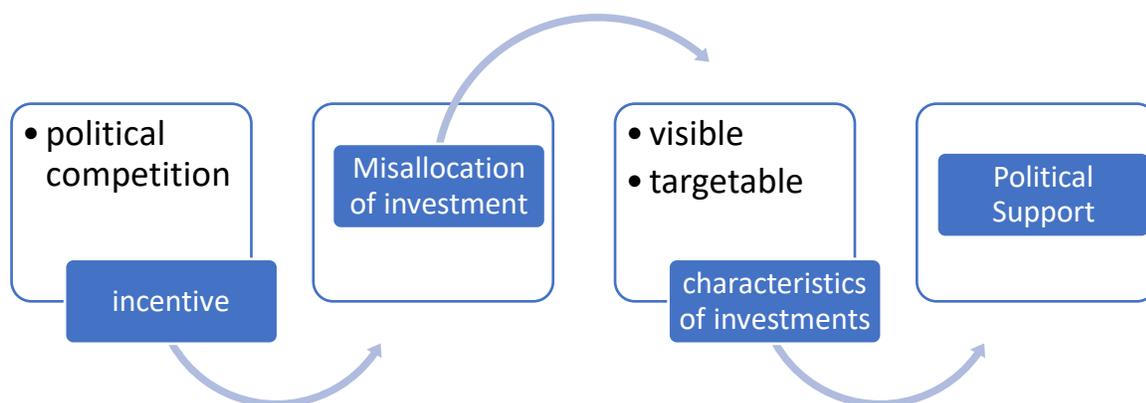
The problem is that these factors that arguably mean economic infrastructure will be more visible and targetable, have also been identified, by the literature on WE and clientelism theories, as the factors that mean this manipulation will be more economically harmful. This is because when there is low vertical accountability from the public and they rely on intrinsically visible investments, they are unable to observe the full details of manipulation or monitor the efficiency and necessity of spending policies (Schuknecht, 2000). And when there is low horizontal accountability via low rule of law and executive constraints or high corruption, incumbents are more able to target investments towards narrow instead of broader interests. This means that they use economic infrastructure investments which commonly involve large, discrete contracts and enable rent seeking, bribery, and collusion, which compromises their efficiency (Pierskalla and Sacks, 2018, Ferris and Dash, 2019, Mogues, 2015). It is therefore plausible to propose that when accountability is low, more visible, and targetable investments will be more politically valuable and will be effective at signaling competence and buying support, which will compromise their economic efficiency.

1.6. Argument

To understand why not all investment leads to growth and why the misallocation of investment is an issue that plagues MICs, I put-forth the following argument: *when an incumbent feels insecure, because of higher political competition, they bias spending*

towards investments with more political value, to increase political support. See Figure 1-1. They can therefore increase spending in more intrinsically visible investments in economic infrastructure, to signal their competence, but only when voters are less informed otherwise they will be punished for this manipulation (Drazen and Eslava, 2010, Schultz, 1963). They can also target spending towards narrow interests, but only if the governance structure allows them this discretion. I hypothesize that economic infrastructure investments will be more politically valuable when horizontal and vertical accountability are low, but that they will be more likely to be wasteful.

Figure 1-1 Mechanism for the manipulation of investment in MICs



In this dissertation, I argue and demonstrate how overinvestment in certain sectors is a political strategy that some incumbents use to increase their chances of political survival. Theoretically this manipulation will only be possible and successful if vertical or horizontal accountability are low. That is why I focus on these contexts. As a result, wasteful investments and WE with diminishing returns can come about due to these political distortions in the allocation process that encourage biasing investment towards more visible and targetable sectors for prestige, patronage and profit and ultimately

political support. Based on theoretical and empirical evidence, I argue that when political survival motivates investment decisions in contexts with low accountability, they are more likely to become wasteful. I outline my main argument and propose the causal mechanism outlined in Figure 1-2.

Figure 1-2 Main Argument



1.7. Contribution

By doing this, I contribute to the state of knowledge in several ways. First, I study the role of political motivations beyond elections. This allows me to look at this manipulation in a non-cyclical manner, based on arguments that most manipulation takes place between elections and not merely in the lead up to them. Specifically, by studying the role of political competition[and not elections] on the allocation of investment, we are more able to understand this phenomenon in non-democracies or contexts where elections are less meaningful and political insecurity manifests itself in different forms.

Second, to find out specifically which categories of investment are more visible or targetable, I disaggregate spending even further than similar research. Instead of focusing on current versus capital spending, I focus on functional categories of spending. Specifically, I focus on social infrastructure which is comprised of education, health, and

social protection⁴. And on economic infrastructure investment which is a proxy for transport and communication and defence spending. I also look at each of these categories separately. I use the SPEED dataset for data on public investment.

Crucially, previous research has not attempted to examine targetability and visibility separately and has instead interpreted increases in current spending as evidence of the visibility mechanism. Previous research has also focused on targetability only in relationship to partisanship. Therefore, by linking horizontal accountability to the phenomenon of increased targeting and vertical accountability to increased visibility, I am taking the first step towards identifying what is more targetable or visible in the contexts where theoretically these investments should be more wasteful.

The literature on White Elephants and that on PBC's and budget manipulation are two separate literatures that have not previously been connected. One of main contributions of this dissertation is connecting those literatures. This connection makes sense because the literature on WE and clientelism constantly highlight how they are most likely to exist in contexts with low accountability and that they become wasteful when they are driven by politics. And although the PBC literature was previously focused on current spending as more politically driven [which may explain why the literatures haven't been linked], today with the rise of evidence that economic infrastructure can be politically driven and with the acknowledgement that the form of PBC also depends on elements of horizontal and vertical accountability; it becomes logical to connect both literatures.

I also look more closely at the- understudied- contexts where this misallocation will theoretically be more harmful to investment efficiency, MICs. To my knowledge there has been no large N study that focuses on MICs only. This allows me to explain *why* misallocation happens, *what* forms it takes, *why* it takes these forms and *when* it is more likely to be harmful. This study focuses exclusively on middle-income countries (MICs),

⁴ total social protection expenditure includes social insurance and social assistance programs.

as classified by the World Bank, covering the years 1990–2016. MICs are not treated as a treatment or comparison group, but rather as the contextual scope of the analysis. This is because the main aim is not to compare MICs to low- or high-income countries⁵, but to explore variation within MICs, particularly how different accountability contexts (horizontal and vertical) condition the effect of political competition on the allocation of public investment.

This scope is theoretically motivated by the observation that MICs are especially prone to the political distortions of investment: they are often fiscally capable of large-scale infrastructure or social programs, yet continue to suffer from misallocation and the proliferation of wasteful or unproductive investments. This paradox — capacity without consistent developmental outcomes — is particularly salient in this income group.

I then supplement my quantitative findings with a case study that demonstrates *how* economic infrastructure investment is more visible and targetable and subsequently politically valuable and can indeed contribute to political survival, yet waste resources. The case study allows me to trace the causal mechanism and demonstrate *how* and *why* this political value, compromises economic efficiency. The case study also allows me to clearly identify the link between political misallocation, visibility and targetability and WE, which is a link that has not previously been explored.

Throughout this dissertation I help explain the variations in public investment allocation between countries. By looking closely at *how* politically valuable different categories of investment are in different contexts and *why* this is the case I can uncover why some countries overinvest in some categories and underinvest in others and ultimately contribute towards understanding why wasteful investments exist.

⁵ Although initially I did compare MICs to High-Income and Low-Income Countries; I include results of this comparison only as figures, because they are beyond the scope of this dissertation.

1.8. Approach to research question

To address this puzzle and answer my research question, I empirically test what investments political competition drives incumbents to prefer in MICs with low accountability. This allows me to show which investments are more politically valuable in these contexts due to their visibility and targetability. I add further nuance to this and break down visibility and targetability separately by examining the factors that are theoretically believed to shape these concepts. I also only focus on contexts where according to the literatures on WE and clientelism, politics will distort the economic efficiency of spending. The empirical implications of my theory are significant; if political competition increases spending on economic infrastructure in a specific context, then I can reasonably argue that it is more targetable or visible in this context and will therefore be more prone to manipulation⁶ and more likely to be wasteful.

1.9. Key Concepts

1.9.1. Political competition [Independent variable]

I focus on political competition because it brings about a greater chance of losing power, which incentivizes incumbents to misallocate resources; whereas when political competition is low, leaders are believed to have no incentive to manipulate spending (Shmuel, 2020). And based on the literature and empirical overview, politicians have been found to respond to political competition by exploiting public investment to enhance their political survival by overspending on categories that will enable them to gain support (Gonzalez, 2002). As a result, political competition reflects the probability of opportunistic behavior that can-when accountability is low- negatively affect the efficiency of investment. This makes it key to explaining the differential attention that different categories of investment receive in different contexts.

⁶ This is in line with Schulze [2021] and Fankhauser et al. [2015]

1.9.1. Definition

Political competition is broadly defined as the non-violent contest for political power and influence(Pinto and Timmons, 2005). Specifically, it measures the extent to which political power is contested by factions within a defined political structure. The term has been used to capture several concepts – from contested elections, ‘who can participate in the elections’, to ‘how many seats or votes the largest party obtains’. Regardless of the definition used it is believed to indicate the degree to which officials feel pressure and insecurity due to the risk of removal or defeat(Holbrook and Dunk, 1993).

1.9.2. Measurement

To measure political competition, I use the variable POLCOMP from the Polity V dataset, which is one of the most widely used sources of data on variation between different regime types(Vanhanen, 2000). The variable is believed to provide an objective view on the characteristics of each country’s political context and by capturing its institutional aspect, is a valid measure of the extent of political competition (Alfano and Baraldi, 2016). The variable tracks the degree of political competition an incumbent is expected to face in account of the policy decisions that were made over an administrative cycle(Agnello et al., 2017). The underlying policy characteristics that it is based on are all related to political competition and the subcomponents of the variables are deemed the most theoretically relevant to political competition(Hyde and Marinov, 2012). It allows a more nuanced analysis of political competition that is relevant across different regime types and also considers internal power struggles and public contestation(Wong, 2020).

1.9.3. Difference between electoral competition and political competition

It has recently emerged that political competition in certain contexts is composed of more than just electoral competition(Epperly, 2016). Therefore, within this dissertation, I focus on a broader concept of competition than merely the incidence of elections.

Research that has focused on the politically driven allocation of investment has focused on elections as the primary motivation. And the few works that have not used elections, have used variables related to ‘electoral competition’ that assume that basic democratic features are in place. For example Holbrook and Dunk (1993) and Rogers and Rogers (2000) use the ‘win margin’ and Zeckhauser and Skilling (2002) use the length of time a party has been in power.

This is problematic since recently it has been established that the most harmful and significant misallocations take place in contexts where elections do not exist or are not necessarily free, fair, or meaningful and democratic structures are not necessarily in place. And political competition in non-democracies is even believed to create more insecurity and be more relevant than that created by elections in democracies (Levitsky and Way, 2010). Furthermore, according to Shmuel (2020) it is actually political competition and not elections that motivates an incumbent to manipulate spending. And it has been established by Aidt (2003) that the effect of electoral competition on fiscal policy is different from that of political competition. All this suggests that a different variable is necessary, especially for research that covers both democracies and non-democracies.

Therefore, in my dissertation, by varying this measure of political competition, I can empirically capture the incentive of uncertainty, in driving budget manipulation in different contexts. This is based on my argument that differences in levels of political competition change an incumbent’s perception of threat to survival and create a heightened incentive for the incumbent to invest in more targetable and visible categories of spending at the expense of less targetable and visible ones. Therefore, by increasing the political rewards of budget manipulation, I show how political competition affects the size and composition of budget manipulations.

⁹ This is in line with Block et al. [2003].

1.9.4. Public Infrastructure Investment [Dependent Variable]

Infrastructure provides the base for a country's structure and all other economic activities. Generally, the literature divides it into two major components: economic and social infrastructure. Economic infrastructure generally includes transport, electricity, telecommunication, and sometimes defence, whereas social infrastructure includes education, health and social protection (Nguyen and Bui, 2022).

As I mentioned above, it is becoming clearer that infrastructure will only promote growth if it is procured and chosen adequately (Easterly and Serven, 2003). As a result, choosing the right infrastructure has been described as one of the most difficult tasks a government has. This makes infrastructure investment a critical dependent variable that needs more exploration in the political science literature because it is often driven by considerations other than socio-economic growth and development. And increased investment can be considered to be an 'opportunistic' strategy that reveals forms of political rationality that underlie its procurement (Foucault, 2010, Harvey, 2012, Limbert, 2010, Mains, 2012, Henisz and Zelner, 2005, Robinson and Torvik, 2005, Turro and Penyalver, 2019).

Most of the research that focuses on 'visibility' and 'targetability' has ignored the fact that there are many categories of infrastructure and as a result has been inconclusive in reaching results as to which spending is more visible and targetable. By using infrastructure investment as an aggregate score, the literature has failed to capture the intricacies and nuances of manipulation (Malik, 2017). To solve this puzzle, my research disaggregates public investment according to economic function to allow me to determine which categories are more politically valuable. This is based on the fact that it has been more recently established that incumbents manipulate the composition of investment and not overall levels, for political support (Veiga and Veiga, 2007). The

¹⁰ See Bennett [2023]

results of works by Gonzalez (2002), Galli and Rossi (2002), Kneebone and McKenzie (2001), Veiga et al. (2017) and others, suggests that this is because incumbents and the public value spending on some categories more than others. Namely more visible or targetable categories of investment will be more valuable for political support. In line with this, I argue that in MICs, the political appeal of a public good has more to do with its targetability and visibility and less to do with its contribution to social and economic welfare.

Therefore, the composition of public infrastructure investment represents several critical tradeoffs that clearly reflect political motivations and not necessarily economic rationality. These trade-offs are represented in my main dependent variable: public investment allocation between different economic and social infrastructure categories. To highlight these tradeoffs, I focus on the percentage[%] of total spending. This allows me to open a whole research agenda on how and which investments are targeted or used to signal competence. It also allows me to explore different dimensions of manipulations and to contribute towards identifying the symptoms of unproductive investments, which can help decision makers design public investment policies that target the most productive sectors.

Going deeper in the composition of government expenditure allows me to explore these different dimensions of manipulation that I described above and helps me clarify the components in which political manipulation plays a major role. This is new because most related works that have disaggregated spending have focused mainly on the response of capital or current spending to elections (Schuknecht, 2000, Block, 2002, Block et al., 2003, Vergne, 2009, Efthyvoulou, 2012, Katsimi and Sarantides, 2011, Combes et al., 2019). And works that look more closely within aggregate categories focus on local or municipal spending (Schuknecht, 2000, Potrafke, 2010, Persson and Tabellini, 2002, Klomp and Haan, 2016). The literature that does disaggregate spending, is mainly in the form of case

studies that merely look at what categories of spending respond to elections and mostly look at one category of spending at a time.

1.10. Empirical Approach and Outline

To explore how political competition affects the allocation of public investment based on its characteristics and explore this in the contexts where it is more likely to have a negative effect on the allocation and productivity of investment, I employ a mixed methods approach that utilizes quantitative methods and triangulates the findings with a case study that illustrates how the causal link described operates. By supplementing my findings with a case study, I can reveal if indeed these investments are more visible and targetable and uncover the causal complexity of *how* these investments are more politically valuable. The case study also allows me to demonstrate how the political value of these investments can compromise their economic efficiency. In this sense this methodology allows triangulation of my results, in that the findings of my case-study confirm the findings of my quantitative chapters. It also provides complementarity in that the case study allows me to interpret different aspects of the causal links I tested in Chapters 3 and 4. This allows greater validation of my research outcomes.

In Chapter 2 I review the literature that informs my argument. This literature is focused on the way in which an incumbent's survival incentives can shape resource allocation and how the characteristics of these investments will determine its political value.

In Chapters 3 and 4, I test my hypotheses on cross-country panel data from 62 MICs from 1990 to 2016 regressing different categories of public expenditures as a percentage of total spending on political competition. Panel data analysis allows me to control for both time-invariant and time-varying characteristics of individual units in the dataset, providing more robust estimates of the coefficients and having multiple observations for each country allows me to consider dynamic and country-specific fixed effects. Therefore, as

my baseline model, I use a Fixed Effects model with PCSE¹¹ and a lagged dependent variable, which has proven very popular and has become a standard modeling practice for panel data in political economy.

In Chapter 3, I test to see whether economic infrastructure is indeed more politically valuable and targetable in MICs where rule of law and executive constraints are low, and corruption is high. This is because theoretically these variables mean an incumbent will be more able to successfully manipulate investment towards narrow interests for political support. The findings of this chapter allow me to determine which category of investment is more targetable towards narrow interests and therefore potentially economically harmful in contexts with low rule of law, executive constraints, and high corruption.

Then, in Chapter 4, I examine the effect of political competition on the allocation of spending in MIC's where the public is less informed, the media is less free, and transparency is low. This is because arguably in these contexts' manipulation will be towards intrinsically visible investments but will also more likely be successful in signaling competence and driving political support. I test to see whether this indeed means economic infrastructure is more visible and will increase in line with political competition in these contexts.

According to Odell (2001), when a formal model has suggested hypotheses for testing, and even after large-N quantitative analysis have provided confirmation, there always remains the question whether the causal mechanism suggested by the theory was actually responsible for connecting the cause with the effect variable. This highlights the importance of a case-study to present a more complete picture.

¹¹ The Panel Corrected Standard Errors [PCSE] method adjusts the standard errors to account for the panel structure of the data and to control for serial correlation, enhancing the reliability of the statistical inference and the use of these error correction models is commonly justified on technical grounds.

Therefore, to further validate my findings, I supplement my findings that suggest that economic infrastructure is indeed more politically valuable in MICs with low accountability, with a case study that demonstrates how visibility and targetability can indeed increase the political value of certain investments. In the case study I show how these political motivations can hinder the efficiency of these very investments and lead to a proliferation of WE. Specifically, in Chapter 5, I demonstrate how, in Egypt from 1952 to 2020, several large-scale economic infrastructure projects contributed to the survival of the incumbent, despite wasting scarce economic resources. The case-study does not only add layers to the quantitative analysis, but it also ‘fills holes. And through my case study, I confirm the systematic results of Chapters 3 and 4 and explore the mechanisms in more detail.

Understanding the political motivations behind the allocation of investment will help explain why misallocation occurs and subsequently why investment can be wasteful in the contexts where it is needed the most. By highlighting the factors that make certain investments more visible or targetable; one can provide policy advice to mitigate the harmful effect politics can have on the allocation of investment and therefore improve the efficiency of the allocation of investment. The findings of this dissertation will also help explain why different social infrastructure investments are often neglected in MIC’s which can create a cycle of inefficient investment allocation.

1.11. Findings and Conclusion

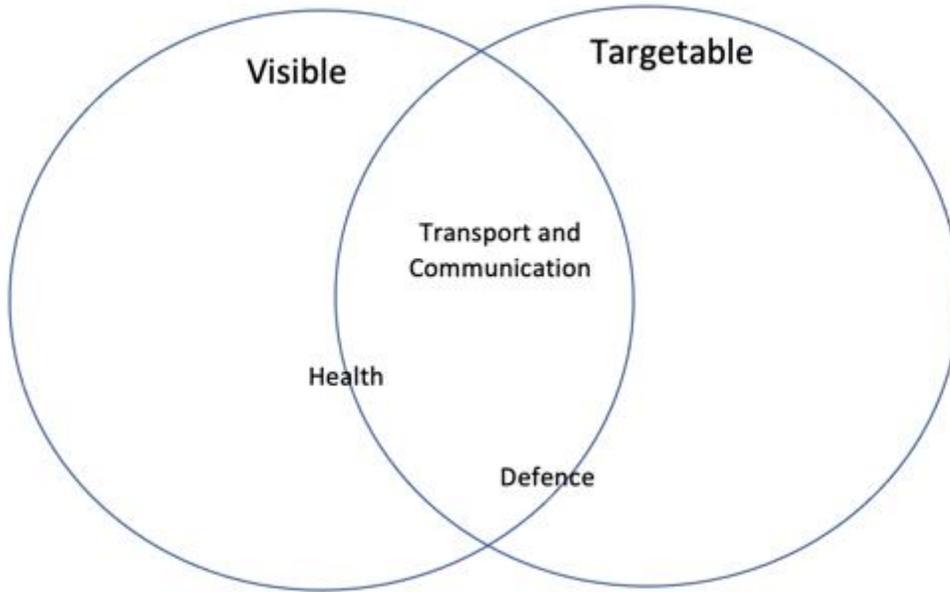
By building upon arguments that the consequences of investment are linked to the processes by which they are carried out; I show how and when politics can distort the allocation of investment; which theoretically can compromise its productivity and hinder development. The main conclusion of this dissertation is that in MIC’s when information is low and institutions are weak, manipulation is widespread, and incumbents will prefer to bias investments towards politically valuable targetable and visible categories regardless of their economic necessity or efficiency. As a result, less targetable social

infrastructure investments will be undersupplied and more visible and targetable economic infrastructure will be oversupplied, but its efficiency will be compromised. This is because the same variables that theoretically mean politics will distort economic outcomes, also mean that economic infrastructure is more visible and targetable in MICs.

I indeed find that when rule of law or executive constraints are low or when corruption is high, incumbents increase economic infrastructure investment in line with political competition. More specifically they increase transport and communication and defence spending, which suggests that they are more targetable. When vertical accountability is low, I find that indeed more intrinsically visible investments are more politically valuable, and that economic infrastructure increases with political competition. But I also find that all categories that include capital spending, like health and education can also be visible. These findings help explain why MIC's have been found to overinvest in economic infrastructure at the expense of social infrastructure and why WE often plague these contexts. They also help explain why often investments in health and education can be wasteful and inefficient in MICs. The findings of my case study confirm these results but add further nuance to understanding the causal link. They show how these investments can be made more visible by the media and who they are more targetable towards. They also highlight how this political value is what compromises the economic efficiency of these investments.

All in all, this dissertation provides empirical and theoretical evidence that many of the characteristics of MICs mean that economic infrastructure is particularly prone to political distortions due to its visibility and targetability. I show how and why this bias is more likely to be towards economic infrastructure investments- and which ones specifically- and away from social infrastructure investments. I also show how some social infrastructure investments can be more visible. See Figure 1-3 for a summary of the results.

Figure 1-3 The Visibility and Targetability of Different Expenditures in MICs with low accountability¹²



¹² Transport and communication were visible in 15/15 regressions and targetable in 15/15 regressions

Health was visible in 10/15 and targetable in 9/15

Defence was targetable in 15/15 regressions and visible in 13/15 regressions. All regressions are available in the Appendix.

Chapter 2: Theory and Literature Review

In this chapter, I overview the main theoretical and empirical literature that informs my argument and outline my main variables. I provide an account of current debates about the effect of political uncertainty, proxied by political competition on a countries investment decisions and describe the research gaps I wish to address.

2.1. Summary

Since the classical works of Downs (1957) and Tufte (1980) it has been established that to increase political support when insecure, politicians can manipulate spending. This increases support via two mechanisms, first it signals competence and second it targets key constituents, ultimately 'buying' their support. However, as I show below, the effect of political competition on the provision of public investment has been empirically and theoretically controversial.

Although it was initially believed to increase accountability, discipline the incumbent and subsequently result in more efficient spending; it is now acknowledged that in certain cases-which I focus on- the uncertainty that comes with political competition can expose spending to wasteful manipulation and short-termism (Nordhaus, 1975, Gottlieb and Kosec, 2018). And even though the link between political competition and public spending is far from being settled, it has been identified as the main incentive and most necessary condition for politicians to either manipulate spending towards inefficient projects or implement growth promoting policies(Mesquita et al., 2004).

In the introduction I outlined the puzzle, which is the existence and proliferation of unproductive investments and WE that plague many MICs and keep them stuck in a development trap. In this chapter I show how this puzzling link between economic growth and public infrastructure exists because for a long time the literature ignored the fact that the allocation of investment is an inherently political process and that because of political distortions there is a difference between productive and unproductive

infrastructure. In this chapter, I reveal why any research that wishes to understand why not all infrastructure investment leads to growth must look more closely at the characteristics of and political motivations behind different investments. This is what I do to help explain the effect of political distortions and subsequently contribute towards understanding whether certain investments will be productive or not, enabling the symptoms of unproductive investments to be realized earlier on. To do this I first overview the theoretical and empirical literature that attempts to explain why, where, and how this 'political' manipulation happens.

As I mentioned in Chapter 1, the link between political competition and spending is primarily centered around the visibility and targetability of different investments. These concepts are related to selectorate and PBC theories which explain resource allocation for political survival. This chapter demonstrates how, according to the literature the baseline mechanism behind the manipulation of budgets links spending with signaling competence and receiving political credit via patronage or targeting spending (Rogoff, 1990). This happens when gaining and staying in power is uncertain and political competition is high (Mesquita et al., 2004). So when career concerns models are placed in political economy contexts it is clear that the appeal of a category of spending to insecure incumbents has more to do with its targetability and visibility than its economic efficiency (Dewatripont et al., 1999). However, I argue that what is more visible or targetable changes in different contexts and that as a result, different investment categories will respond differently to the political uncertainties induced by political competition. The relevance of this lies in the reality that today there is ample empirical evidence that in MICs, budget manipulation results in a permanent ratcheting of certain budget items that are targetable and visible and subsequently endemic phenomenon like wasteful investments and WE (Gupta et al., 2011, Schwartz, 2020, Robinson and Torvik, 2005).

2.2. Political Competition: Independent Variable

The literature suggests that the main mechanism that drives wasteful budget manipulation is through the effect of political uncertainty on government short-termism and opportunism (Calvo and Murillo, 2019). I therefore focus on one of the most relevant political incentives for budget manipulation: political competition. Although political competition in general has not been examined with regards to its effect on spending and its efficiency; I argue that there are many suggestions that it should.

An incumbent's manipulation of spending is believed to depend crucially on the sources of uncertainty that they are subject to. However, the literature and empirical evidence that have attempted to explain this manipulation have focused mainly on elections as the key motivation. Although this has contributed to our understanding, it has failed to explain manipulation in contexts where elections do not exist or are not meaningful. Below I review the literature, to justify my argument that 'political competition' provides the main incentive for spending manipulation.

Political competition strongly influences public investment allocation, which according to Esfahani and Ramírez (2003), Levy and Spiller (1996) and Nijkamp and Poot (2003) can compromise its returns. According to Mokyr (2000), political competition fundamentally affects how governments manage spending, thereby influencing the returns to productive versus unproductive investments, helping dictate the course of economic development. And even though there has been an implicit assumption¹³ that political competition is irrelevant in non-democracies, in line with more recent findings by Epperly (2016) and others, I argue that this is not the case.

Ultimately, I argue that the incentives of incumbents to manipulate spending vary with the extent of political competition which affects their security of remaining in office. This

¹³ According to Higashijima[2020] only recently have scholars begun to study autocratic budget manipulations in cross-national settings

is in line with arguments by Bischoff (2003) and others, that the incentive to manipulate the budget increases with the actual or perceived strength of political competition (Aidt and Shvets, 2012, Morozumi et al., 2014). To quantify this, the literature has identified a number of relevant elements of political competition, which include, the presence of electoral mechanisms (Zhang et al., 2021), whether the opposition is strong or weak (Ricciuti, 2004), elections (Schuknecht, 2000, Shi and Svensson, 2006), the closeness of elections (Alt and Rose, 2009, Franzese, 2002), election turnout and vote margin (Mayper et al., 1991). The problem is that all these measures assume that some democratic structures are in place. However, regardless of the measure of uncertainty, the literature agrees that the political manipulation of investment increases when the probability of losing power increases (Aidt et al., 2003). Empirically, this means that political competition increases myopia¹⁴ or short-termism, which has adverse effects on the allocation and productivity of investment.

However, the effect of political competition on spending in general and public investment specifically is not straightforward. Because although the democratic accountability literature assumed that competition would make public investment more efficient and productive because it would be more responsive to voters demands; literature on PBCs and the existence of misallocation and unproductive investments that keep MICs stuck in a trap highlight how this responsiveness can be counterproductive. This is especially the case in contexts with certain features that can theoretically exacerbate the distortive effect politics can have on the allocation of investment and subsequently on growth and development.

Within the literatures on WE and clientelism, it has been argued extensively that more advanced institutions, a broader and more informed selectorate and a large range of interest groups can reduce the distortionary effect politics can have on the efficiency of investment (Mogues, 2015, Facchini, 2014). Although this distortionary effect can be

¹⁴ According to Aidt et al. [2003] myopia is understood as low long to short term spending ratio.

mitigated via institutional constraints and voter information, these are often only present in developed democracies, which is why this dissertation focuses on MICs. And I argue that when these features are not present, this can contribute towards the proliferation of WE and the MIT, making increased investment in certain sectors detrimental to the long-term growth prospects of MICs. As a result, political distortions through PBC's, vote buying, or the disenfranchisement of low-income voters have all been deemed more pronounced in MICs (Shi and Svensson, 2006, Keefer and Vlaicu, 2005, Khemani, 2010).

Initially, political competition was believed to improve the allocation of resources and encourage growth and development through several mechanisms. For example, higher levels of political competition was believed to enhance government accountability, attentiveness, effort and responsiveness to the public which was believed to lead to more efficient investments that are in line with voter preferences (Besley and Case, 1995, Hobolt and Klemmensen, 2008). This logic suggests that political competition should actually reduce opportunism, clientelism, elite capture and favoritism (Meloni, 1995, Weingast, 1995, Wittman, 1983). And that when there is low or no competition, there should be no incentive for the incumbent to provide productive social services or innovate (Wigley and Akkoyunlu-Wigley, 2011).

And indeed there is empirical evidence that greater political competition leads to the adoption of pro-growth and development policies (Besley and Case, 1995, Dash and Raja, 2012). And works by Polo (1998), Svensson (1998) and Besley and Ghatak (2005) all indicate that in the absence of political competition, rent-seeking or inefficient provision of investment may ensue. More political competition was believed to induce politicians to exert greater efforts towards what subjects want, which theoretically was believed to increase incentives to innovate, invest in productive activities and reduce opportunities for manipulation and rent seeking (Wittman, 1983, Mulligan et al., 2004). It was therefore generally believed that when political competition was high, politicians would be

incentivized to perform well to get re-elected and to provide better investment for a broader, more informed and more heterogeneous selectorate (Persson et al., 2000).

The problem is that this positive effect assumed that incumbents will be more responsive by targeting spending towards the broad preferences of informed voters, which is not always the case and the characteristics of whom this targeting is towards can determine the efficiency of these investments. Therefore, mechanisms like responsiveness and signaling competence that were argued to make political competition have a positive effect on spending and its efficiency can be double edged swords. This is highlighted by selectorate and PBC theories that suggest that responsiveness can become negative and can result in manipulation towards special interests via targetable investments or signaling competence via visible investments that are often inefficient.

So even though for a long time, political scientists and economists have proposed that more political competition should reduce a government's ability to engage in budget manipulation or prioritize the short term; more recently it has been found that governments facing political competition can waste resources by prioritizing the short term to please impatient and uninformed groups to increase support (Wright et al., 2013, Stokes et al., 2013, Tufte, 1980). And in conflict with Dahl's view that political competition will establish more democratic accountability, Olson (1982) and Lowi (1979) posit that political competition can turn interest groups into distributional coalitions, increasing the temptation of harmful budget manipulation.

In line with this, it has more recently been argued that when an incumbent is more secure there will be more policy leadership and efficient spending; whereas when political competition is high, responsiveness in the form of narrow targeting and increasing intrinsically visible investment can increase (Hobolt and Klemmensen, 2008). And this targeting will be more politically rewarding when political competition is high and survival is uncertain (Jacobs, 2016, Shmuel, 2020). If responsiveness becomes pandering

towards narrow interests, incumbents will focus on targeting investment even if it is socially and economically inefficient (Jensen and Malesky, 2018, Mullin and Hansen, 2022). Therefore political competition has been found to push incumbents to forsake long-term investments for short term survival and as a result manage resources less responsibly and overspend on sectors that signal their competence and 'buy' the support of key groups (Gandhi and Przeworski, 2007, Morozumi et al., 2014). In line with this, there is empirical evidence that greater security in office is associated with less manipulation and that leaders who face low competition may invest more in more productive sectors. However, as political competition increases, incentives for the incumbent to allow key groups to engage in rent-seeking activities, which may increase budget manipulation and harm economic growth increases (Murphy et al., 1991, Alfano and Baraldi, 2016, Saha et al., 2014).

This negative effect is found in cases where, as a corollary to bottom-up pressure by voters, competition induces more narrow targeting towards elites. This is often the case in MICs where, increased political competition, pushes politicians to pander towards narrow interests and target investments towards them for political support (Grossman and Helpman, 2001, Curto-Grau et al., 2012). Therefore in these contexts, investments that are more prone to political capture tend to increase with political competition (Alok and Ayyagari, 2020, Chaudhry and Mazhar, 2019). And when the context allows, projecting power and signaling competence through manipulating the budget towards visible expensive prestige projects and WE is an effective strategy for rulers seeking to establish and secure their own power when they feel insecure (Gjerløw and Knutsen, 2017, Bracco et al., 2018). And pork barrelism can increase at the expense of policies that benefit the economy as a whole (Alfano and Baraldi, 2016, Lizzeri and Persico, 2005).

Consequently, there is now evidence that political competition *can* increase the probability of opportunistic behavior which can negatively affect the efficiency of investments (Müllner and Dorobantu, 2022, Percoco, 2014, Magwedere and Marozva, 2022,

Lakmeeharan et al., 2020). And across the theories I discuss in this chapter, a common premise is that insecure leaders will manipulate spending to garner political support from key groups and therefore political competition shapes public spending decisions (Suchman, 1995, Haan and Sturm, 1997, Shelton, 2007, Kurtz, 2002).

In conclusion, I choose to focus on the role of political competition because several theoretical frameworks highlight this key role of political competition, justifying its application as my key independent variable. Political Competition can exacerbate pork barrel incentives, cause policy deviation and distort government investments, because it becomes harder for policy makers to ignore the political consequences of their policies when there is more competition (Burrier, 2019, Cantu, 2017). And the effect of elections on budget manipulation in PBC theories is also conditional on political competition (Bardhan and Yang, 2004, Chaudhry and Mazhar, 2019, Ghosh and Meagher, 2015). Within these works it has been argued that the uncertainty that comes with political competition is what triggers budget manipulations and is therefore the most significant predictor of budget variance (Eibl and Lynge-Mangueira, 2016, Mayper et al., 1991). It is also a fundamental feature of democratic theory that the incentives generated by elections will be substantially stronger when the incumbent faces a genuine threat of losing office (Kitschelt and Wilkinson, 2007). This is because it would be unreasonable to expect that incumbents facing a close contest and those feeling more secure would deploy their resources and patronage in the same way (Weitz-Shapiro, 2012, Blaydes, 2011, Bak, 2016).

In addition to PBC theories, theoretical frameworks like selectorate theory, which emphasize the role of key groups in maintaining power also align well with the concept of political competition. Since it is impossible in contexts with political competition for leaders to ignore the political consequences of their actions, they must be responsive to the public or the elites they rely on for support (Burrier, 2019). The degree of political competition can therefore moderate how much incumbents will need to focus on survival

objectives over long-term policy and spending (Strom, 1990, Robertson, 1976). And leaders who are uncertain will devote more resources to maintaining their rule and less to effective governance and development.

As political competition increases, powerful interest groups may also have more freedom to extract fiscal resources and more narrowly targeted spending may result which can lead to unproductive investments (Alesina and Drazen, 2011, Tornell and Lane, 1999, Lizzeri and Persico, 2005). And even though standard median voter models argue that political competition allows voters to use the state as a source of redistribution; it has been found that empirically political competition can encourage a form of rent seeking by the median voter,¹⁵ (Alesina and Roubini, 1992). And political competition in different contexts from Japan to Austria, was found to scale up clientelism and narrowly targeted spending (Meloni, 1995, Weingrod, 1977, Kitschelt and Wilkinson, 2007, Harding, 2015). The intensity of political competition can therefore influence the extent to which leaders rely on manipulation via patronage, clientelism, and signaling competence to retain the loyalty of their supporters and subsequently the extent and forms of manipulation.

Finally, a review of the literature shows how political competition can lead to more short-termism and opportunism in the allocation of spending especially in MICs (Rogoff and Sibert, 1988, Besley and Case, 1995). And the empirical evidence finds that indeed both democracies and non-democracies manipulate spending when they are more insecure about their survival (Nordhaus, 1975, Tufte, 1980, Drazen and Eslava, 2004). A number of studies like, Alesina et al. (1997), Mesquita et al. (2004), Buchanan and Wagner (1977), Rodrik et al. (2002), and Besley et al. (2010) highlight this negative effect that political competition can have in the initiation of wasteful,¹⁶ yet politically rewarding investments. Therefore, the core premise of my argument is that higher political competition can push

¹⁵ As a result, budget manipulations have long been characteristics of many democracies too

¹⁶ In Nigeria for example, Efobi and Osabuohien [2014] found that political uncertainty was what determined the efficiency and allocation of government spending. And in contexts as diverse as Ghana and Argentina, Stokes [2005] and others have observed an increase of vote buying with political competition

leaders to target their investments towards specific groups and signal their competence via visible investments which can compromise the efficiency of these investments (Dixit and Londregan, 1996, Grossman and Helpman, 2001, Persson and Tabellini, 2002).

Therefore, measures of political competition can help us understand whether there is an incentive to manipulate spending or not in different contexts, making it a key independent variable (Vortherms, 2019, Orr, 2019, Eibl and Lynge-Mangueira, 2017).

2.3. How is the budget manipulated? Dependent Variable

Critically, political competition has been found to affect not only the magnitude of manipulation but also its composition. And according to Aidt et al. (2003) a direct consequence of this is that the government underinvests in long-term investment categories and overinvests in short-term ones.

Although research to this point has focused on several dependent variables related to spending, this has mostly been with regards to aggregate measures like revenues versus taxes or current versus capital spending. However, since studies on WE highlight how economic infrastructure investments are more likely to be wasteful, I focus on infrastructure investment disaggregated by economic function.

Public infrastructure investment¹⁷ has always been identified as one of the most important determinants of growth and is at the core of successful policy implementation (Calderón and Servén, 2008). However, recently, the literature has been questioning the findings of early research that assumed that public infrastructure investment is ‘by definition’ productive by arguing that the composition of and motivations behind infrastructure investment are key to understanding its growth promoting effect. This is in response to mixed empirical findings, where some studies¹⁸ find that public infrastructure investment

¹⁷ According to Hasan [2017], Although the definition of public infrastructure investment is flexible and empirically differs across different jurisdictions and studies; the term comes with a few implicit assumptions. The first is that it originates from the government [Valila, 2020]. And second, at least initially, the investment component of government spending on economic and social infrastructure was believed to be ‘by definition’ productive and therefore to have a positive effect on economic growth.

¹⁸ See Perotti [2004], Ilzetzki et al. [2013]; Bougheas et al. [2000]; Afonso and Leal [2019]; Gitonga et al. [2022]; David et al. [2000]; Bergh and Karlsson [2010]; Rodriguez-Pose and Fratesi [2000]; Roy [2011]; Afonso et al. [2020]

has a negative-or uncertain- effect on economic growth in a variety of both developed and developing countries and another group of studies,¹⁹ find that public infrastructure investment has a nonlinear effect on growth. And it has now become established that public infrastructure investment does not always lead to growth and that in certain cases, allocating more resources to infrastructure may reduce its productivity and hinder economic growth(Perkins et al., 2005, Sanchez-Robles, 1998, Canning and Pedroni, 2008).

This thesis also contributes to the public goods literature by distinguishing between different *types* of public goods — rather than presenting a binary of “productive” versus “wasteful” investments. Both economic infrastructure (e.g., transport, communication, defence) and social investments (e.g., health, education, social protection) fall under the broad umbrella of public goods, yet they differ significantly in terms of visibility, targetability, and political utility.

This distinction aligns with insights from selectorate theory (Bueno de Mesquita et al., 2003), which posits that leaders strategically allocate resources to maintain support from winning coalitions. While public goods theoretically benefit the broad population, in low-accountability contexts, leaders may repurpose them into particularistic or clientelist tools. For instance, infrastructure may be designed to appear universal but delivered in ways that reward elites or signal prestige. Similarly, some social spending categories (like social protection) can be narrowly targeted or serve patronage goals (Keefer and Khemani, 2003). Therefore, this dissertation does not treat public investment as inherently “good” or “bad,” but examines how political incentives shape the allocation *within* the public goods space — leading some categories to be more vulnerable to politicised misallocation than others.

¹⁹ See Chen[2017], Altunc[2013], Armev[1995], Bozma[2019], Zhang[2016] and Evans[1994].

Measuring infrastructure investment is critical since it is a multi-dimensional concept, that includes a wide range of sectors from transport and communication to health. However, most of the empirical studies that examine the impact of infrastructure on growth use public expenditure measures to measure public infrastructure. And based upon arguments by Jimenez (1995) and others who focus on developing countries, it has been accepted that public investment includes all government spending on different sectors and not just capital expenditures²⁰ as defined in official statistics (Sahoo et al., 2012, Jahan and McCleery, 2005, Ogun, 2010). I use Transport and Communication expenditure as a proxy for economic infrastructure spending (Devarajan et al., 1996, Vergne, 2009). And in line with similar research for the purposes of this dissertation, social infrastructure investments include health, education, and social protection²¹. I expand on this in Chapter 3.

Recent evidence has made it clear that the link between public infrastructure and growth depends on how it is allocated under political conditions and has highlighted that understanding the political motivations of different investments is critical to understanding the differences in prosperity that separate countries today (Hall and Jones, 1996, Timmons, 2005). This is because political motivations shape the allocation of public infrastructure investment, especially in MICs (Graaf and Sovacool, 2014, Asnakew, 2016, Puerto and Shane, 2014). In these contexts, political incentives may distort the allocation of infrastructure investment, often compromising its productivity (Campos and Nugent, 2003). As a result, investment and its motivations have become a critical area that needs to be understood more and they have been described as the 'Achilles' heel' for politicians in that they can result in their defeat or re-election (MacManus, 2004). Choosing the right projects to invest in is therefore one of the most difficult tasks a government has, because an incumbent's tolerance for wasteful spending is believed to determine the economic performance of a regime which can determine its support and survival (Dincecco, 2017).

20 According to Calderon and Serven [2008], it has been argued that any 'pure public good' can be described as public infrastructure.

21 This is in line with recent research and is justified by Feng and Wu [2018].

The proper allocation of infrastructure is critical in order for it to be efficient and productive (Ganelli and Tervala, 2015, Kadyraliev et al., 2022). And today it is becoming clear that 'how well' a government spends its resources is more important than how much it spends (Isham et al., 1997). Especially since according to research on the MIT, poor investment decisions could lock a country into inefficient infrastructure systems for years, which could result in a preponderance of WE which are detrimental to growth prospects (Atkins et al., 2017). All this highlights how the black box of public investment needs to be opened, for research to understand why incumbents manipulate the budget, which categories are manipulated and when this manipulation is more likely to be successful and subsequently harmful.

The problem is that the use of aggregate data- which has been the main focus of the literature- hides many intricacies involved in understanding the effect of politics on investment (Barro and Sala-i-Martin, 1992). This is despite the realization that within the broad category of public investment, the trade-off between deciding to invest in different types of infrastructure is critical in the study of political economy (Musgrave and Peacock, 1958, Hall and Jones, 1996). For example, Devarajan et al. (1996), Gregoriou and Ghosh (2009), Kweka and Morrissey (2000) among others find that MICs, misallocate investment towards economic infrastructure at the expense of other more productive social investments which is actually what hinders its growth potential. And the weak link between growth and infrastructure is justified on the grounds of this misallocation, especially after it became clear that MICs indeed invest, but that this investment is not sufficiently productive.

After it became clear that there was no empirical evidence of manipulation in aggregate spending, PBC theories argued that the public will prefer and value spending on certain categories more than others. According to the PBC literature, which is the only literature which actually mentions the characteristics of spending being manipulated an insecure

incumbent will manipulate the budget towards more visible or targetable spending categories to increase survival prospects (Rogoff, 1990, Shi and Svensson, 2006).

Selectorate, clientelism, democratic accountability and PBC theories all highlight how the insecurity of incumbents shapes a response via signaling competence to supporters or targeting them with their preferred investments. The empirical implication of this is that I expect incumbents to increase investment in more visible and targetable categories to convince the public of their competence or buy the support of key groups upon whom they rely on for survival when they are uncertain of survival. So, building on the inconclusive empirical results in trying to find which category of investment is more visible or targetable, I argue that these are not intrinsic traits, and that several contextual factors will shape what is visible and what is targetable in different MICs.

It has recently become clear that the misallocation of investment that is driven by political motivations is what can hinder the efficiency and productivity of these investments. The question is what forms does this misallocation take? And which category of investment is the most politically rewarding? I argue that this will change in different contexts, in line with the differential visibility and targetability of different categories of investment in different contexts.

To understand which categories are targeted or visible to in different contexts and why, in this section I review what categories the literature has deemed to be more targetable or visible. I also highlight how the concepts of targetability, and visibility are not well explained by existent literature, and why my next two chapters will attempt to understand what categories are more targetable and visible in different contexts.

2.3.1. Targetability

Although initially it was believed that spending was mainly manipulated towards 'visible' categories; more recent variations of PBC studies, highlight the importance of 'targeting' expenditures to key groups to increase political support (Brender and Drazen, 2013 ,

Drazen and Eslava, 2010). According to Shi and Svensson (2006), even if voters suspect manipulation, they still reward incumbents who target spending towards them. This is also in line with selectorate theories that expect politicians to use their spending and policies, to target the 'right voters' to maximize their chances of survival and reelection (Golden and Min, 2013). Although this was mainly argued and tested in democratic contexts, where voters and parties can be defined according to their partisan preferences, this argument has strong similarities to theories that apply to non-democracies too. For example, this logic is in line with Authoritarian Social Contract theories and theories of neopatrimonialism that argue that during periods of uncertainty, authoritarian leaders target resources to key elites in exchange for political support to ensure survival and deter opposition (Desai et al., 2009, Bratton and Walle, 1997). More targetable investments are therefore politically valuable because they can help an incumbent to retain political power by rewarding supporters, punishing opposition and sustaining patronage networks which is thought to be particularly important when political competition is high (Hanusch, 2012, Magaloni et al., 2009).

Generally, a targetable investment is defined as a spending item that can deliver timely and clearly attributable benefits to specific groups of people- or voters (Franzese, 2002, Tufte, 1980). However, in the literature the distinction between targetable and non-targetable categories is not yet clear (Gonzalez, 2002, Lizzeri and Persico, 2005, Fukumoto et al., 2020). This is because, as I show below, targeting can refer to spending on certain categories that are valued differently by different groups (Drazen and Eslava, 2012). And whom this targeting is directed towards will affect what form it takes.

2.3.2. Targetability and Institutions

Different interest groups will have different preferences with regards to the allocation of investment and incumbents will have different constraints on their ability to target investments to these groups (Knack, 2003, Putnam et al., 1993). Therefore the strategic context within which incumbents make their decisions must be understood to

understand to whom this targeting flows and what forms it will take (Calvo and Murillo, 2019, Weitz-Shapiro, 2012).

Theoretically this 'targeting' can cause misallocation and underinvestment in sectors that are beneficial to the general public (Khemani, 2010). This undermines the quality and efficiency of these investments (Holland and Freeman, 2021). This is especially the case when institutional fragilities mean there is more clientelism or patronage, which are terms used to describe narrow targeting, in which the incumbent offers or promises material benefits on the condition that the recipient returns the favor with a vote or any other form of political support (Stokes et al., 2013). This is particularly valuable to the incumbent because it is cheaper for them to use patron-client relationships than to form direct links with the wider public, so when they can, they will prefer to narrowly target their spending (Keefer and Vlaicu, 2005, Olson, 1965). Therefore, especially in cases where there is low accountability and the general public can hardly influence the career of politicians, targetability towards narrow interests can become a key mechanism for political survival (Lei and Zhou, 2022).

Theories and empirical evidence on this targetability mechanism, all acknowledge that incumbents will only be able to target resources towards narrow interests when the institutional and governance environment allow them this discretion (Enikolopov, 2014, Coady et al., 2006, Kwon, 2005, Kenneth, 2007, Carkoglu and Aytac, 2014). And in general, when institutions are weak and accountability is low, patronage and narrow targeting are believed to proliferate (Robinson and Verdier, 2002, Inman, 1983, Jäger and Schmidt, 2016). As a result, more support for this 'narrow' targeting has been found in these MIC's (Schuknecht, 1996, Kohno and Nishizawa, 1990, Limosani and Navarra, 2001).

Political competition can therefore increase political patronage via this targeting mechanism. And Diaz-Cayeros et al. (2016) argue that countries with political machines are more likely to favour targeted spending that can be directed towards individual

supporters at the expense of investments that provide general benefits. Therefore clientelism and patronage and the use of spending to maintain power via targeting is intrinsically linked to budget manipulations and works like Stokes et al. (2013) suggest that governments use targeted spending to create networks of patronage that they rely on for political support (Hanusch and Keefer, 2013, Magaloni and Wallace, 2008). As a result in certain contexts it is believed that investment, especially in economic infrastructure, can have more to do with rewarding patron-client networks than it has to do with economic rationality and necessity, which can explain the waste of resources and proliferation of WE (Bates, 1981, Robinson, 1998, Gandhi and Przeworski, 2007).

This 'targetability' mechanism may also help explain why corruption, low accountability and low transparency were all found to have a negative effect on the efficiency of investment in MIC's (Fonchamnyo and Sama, 2016, Alt and Lassen, 2006). Since manipulation is believed to be disciplined by accountability, if institutions are more advanced, wasteful political spending is thought to be limited and narrow targeting can be punished in the ballot box (Brender and Drazen, 2008, Besley and Persson, 2008). And developing countries are believed to be the most threatened by harmful political manipulation of spending due to these weak institutional structures and corruption that plague them and allow them to narrowly target investments towards elites. Because of this, these are the contexts where this manipulation is more likely to be economically wasteful (Vergne, 2009). On the other hand, opportunistic spending is believed to be less pronounced and harmful in developed countries who are less prone to manipulation via narrow targeting (Alt and Lassen, 2006). But what form does this narrow targeting usually take? Below I outline some of the empirical findings that help inform my argument.

2.3.3. Forms

In general, targeted spending can take several forms. It can mean pork barrel projects²² that are geographically targeted towards certain collectivities or it can mean sectoral spending that is targeted towards interest groups in line with selectorate and partisan PBC theories (Persson and Tabellini, 2002). However in the literature it is unclear what form this targeting takes and a wide range of categories of spending ranging from employment, to transfers to infrastructure have been deemed targetable in different studies (Hicken, 2011). This inconclusiveness is because what is more targetable will depend on who is being targeted, as sometimes groups of voters are targeted, sometimes elites are targeted and sometimes office rents are preferred when the politicians themselves are targeted (Drazen and Eslava, 2004). This will depend on how much discretion is afforded to the incumbent by the institutional environment.

2.3.3.1. *Economic Infrastructure*

In MICs, the working and lower classes are often excluded and the narrower 'upper fractions' are favoured with regards to this targeting, which creates an 'elite bias' (O'Donnell and Schmitter, 1986, Crowe, 2006). This means that opportunistic behavior can favor more narrow targeting, simply because of its low cost compared to other forms of building support. There is therefore some evidence that if the institutional and governance structures allow it, politicians make credible promises only to narrow groups, which means they prefer narrowly targetable investments, such as economic infrastructure, rather than improvements in broad social services (Keefer and Khemani, 2003). And in general, low quality governance institutions were found to be associated with more favoring of economic infrastructure investments and reductions in social infrastructure investments (Keefer and Knack, 2007, Gupta et al., 2001, Mauro, 1998).

²² It is different to patronage because the incumbent cannot be sure that voters will give support after pork delivery. But although the conceptual difference between pork barrelism and patronage is clear, it is very difficult to empirically distinguish between them and many studies equate both [Golden and Min, 2013, Higashijima, 2020, Lizzeri and Persico, 2005].

Today it is widely believed that in certain contexts, economic infrastructure projects are corruption intensive and easy to extract rents from and target to key elites (Mauro, 1998, Tanzi and Davoodi, 1998). This suggests that when a context allows more discretion, economic infrastructure will more likely be used for targeting (Hines, 1995). And it is also generally accepted that economic infrastructure investments, like construction and transport are the most solid investments adapted to a political economy that is based on patronage (Choplin, 2010). This view is reinforced by Mauro (1998) and Lindert et al. (2006) who argue that corrupt incumbents will spend less on health and education because they will prefer to divert spending to areas that appeal more to their self-interest and that of key elites, which according to them is economic infrastructure where it is easier to levy large bribes and maintain discretion. These targetable economic infrastructure 'prestige' projects also provide incumbents with rents (Robinson and Torvik, 2005). This may be why so many MICs with low institutional quality prefer to spend their limited resources on economic infrastructure projects and defence-where corruption opportunities are abundant- than on education and health, where they are much more limited. And according to Bates (1981) and Lake and Baum (2001) clientelist governments, have a stronger than average preference for targeted economic infrastructure provision and subsequently underprovide education and health services and other social investments with long-term economic and social benefits (Jacobs, 2016, Garrett, 1993). Roads and other construction projects were also found to be targetable to narrow interest groups in India, Mexico, and Columbia (Khemani, 2004, Gonzalez, 2002, Drazen and Eslava, 2010). And housing and construction projects are generally believed to be targetable to specific geographical regions²³ or elites (Robinson and Torvik, 2005, Magaloni and Diaz-Cayeros, 2001). Drazen and Eslava (2010) and others, also suggest that economic infrastructure is more targetable to key elites, especially in developing countries (Vergne, 2009). And it has been suggested in a number of works that economic infrastructure projects demonstrate the logic of political targeting by funneling and

23 This is particularly true in contexts with high population density where large bulks of the population can be physically close to the project, increasing the cost effectiveness of this targeting [Molotch, 1976, Brusco et al. 2004]

manipulating spending in a way that maximizes political support for incumbents who rely on elites for survival (Mesquita et al., 2004, Haggard and McCubbins, 2001, Samuels, 1999, Cox, 2009).

As a result incumbents particularly in developing contexts, are expected to bias spending towards narrowly targeted categories like buildings and government jobs at the expense of broader public goods or social infrastructure.²⁴ (Ndayikeza, 2021). And Funk and Gathmann (2013) use historical data from 1890 to 2000 to show that welfare and education²⁵ expenditures are easily targeted towards broad social groups whereas expenditure on roads and other forms of transport can be targeted to narrower interest groups. Tanzi and Davoodi (1998), Schuknecht (2000), Keefer and Knack (2007) and Castro and Martins (2017) all agree that economic infrastructure investments have the most vote targeting potential, when elites are the ones being targeted.

Not only does economic infrastructure provide more room for rent seeking and preferential contracts, but it also benefits elites.²⁶ who want to increase their profits and expand their markets (Uribe, 2013). And it has been established that economic infrastructure could garner support especially among important elites which can create patronage networks and punish rivals (Brollo and Nannicini, 2012a). As a result, especially when the public are not included in the ruling coalition-which is often the case in many MICs- economic infrastructure investment tends to be more targetable, yet less efficient and sustainable, making it harmful for economic development (Kurtz, 2002, Keefer and Knack, 2007). And Burgess et al. (2015), Harding and Stasavage (2013) and Kramon and

²⁴ For example, Feyzioglu et al. [1998] find that governments receiving foreign aid targeted to education are likely to offset the funds by reducing their own financing of education, but when the aid is used to support economic infrastructure investment like transportation and communications, however, governments maintain their own fiscal efforts in the provision of these [Keefer and Khemani, 2003].

²⁵ But it is important to note that Baldwin [2016] finds that investments in buildings even within education and health sectors can be targeted to specific communities and elites.

²⁶ These richer individuals can pay for private education and healthcare themselves.

Posner (2013) all provide evidence that increased economic infrastructure investment in democracies is more efficient than in autocracies where it reflects favoritism.

Models of strategic fiscal policy by Bogart (2022) also predict a bias towards narrowly targetable economic infrastructure projects in the absence of durability enhancing institutions. This suggests that in contexts with low quality institutions, political motives can push incumbents to narrowly target funds into and overinvest in less productive or unproductive projects which divert resources from other essential and more productive areas (Alesina and Perotti, 1996, Hanushek and Woessmann, 2008). This becomes even more problematic as time goes on due to the entrenchment of this clientelism and as this patronage and clientelism proliferates resources continue to be diverted to unproductive sectors and spending, which is something I explore further in Chapter 5 (Doner and Schneider, 2016, Hanusch and Keefer, 2013).

2.3.3.2. Social Infrastructure

In addition to economic infrastructure investments, some research claims that social protection is another targetable category of investment. For example, Magaloni et al. (2007) consider any expenditures on excludable goods, such as cash transfers and social protection, to be evidence of targeting in their work on Mexico. On the other hand, according to Brender and Drazen (2013), because entitlement spending is dominant in health and social protection, politically motivated changes are harder to create, especially when the incumbent has less discretion. However social protection spending as a percentage of total government expenditures, is often used to measure redistributive policies. And it has arguably been preferred by opportunistic incumbents in different regime types because it is cheaper than long term improvements in health and education (Eibl, 2020). Social protection is even argued to be more likely to be associated with narrow targeting than these more broad-based policies (Bourguignon, 2018, Han, 2022). However, there are suggestions that social protection will only be targetable in contexts where accountability exists. Especially, because it has been argued that when

governments are more corrupt, less accountable to citizens and less efficient in their use of public resources, they tend to decrease investment in social protection (Abdih et al., 2012). So, while economic infrastructure investment is believed to be targetable to elite interests (Bonfatti and Forni, 2019, Klein and Sakurai, 2015); social infrastructure investment, in health and education is believed to also be targetable, but only towards a broad selectorate (Vergne, 2009, Schneider et al., 2010, Kammass and Sarantides, 2019).

Empirically, according to this argument opportunistic incumbents will bias spending towards sectors that are valued and preferred by voters or groups with the highest importance when political competition is high. When elites are the most important source of regime support, incumbents will manipulate the budget by 'pandering upwards' and targeting these elites with economic infrastructure (Jensen and Malesky, 2018). Whereas where a broader selectorate is targeted, social categories will be favoured and can be evidence of mass targeting (Kemmerling and Stephan, 2002, Mizutani and Tanaka, 2010, Uribe, 2013).

Therefore, I expect that when manipulating investment, when the institutional environment reduces accountability, incumbents will prefer to target economic infrastructure. However, when strong institutions push leaders who are survival oriented to care for the private market and the public, they will prefer to target social infrastructures. And I interpret increases in social infrastructure investment when political competition is high as evidence of diffuse benefits and broad targeting, whereas increases in economic infrastructure investment to be evidence of special interest targeting or patronage.

2.3.4. Visibility

In addition to targeting spending to 'buy' votes, incumbents can bias spending towards more visible categories to signal their competence. According to Rogoff (1990) only 'visible' investments will be successful at signaling competence and garnering support. By definition, a visible investment is one that is easily observed and monitored by voters.

However, even though visibility *can* be an intrinsic trait, in that an investment is directly, immediately and intrinsically observable by the public, it can also change in different contexts. And today there is no consensus as to what constitutes a more visible investment, but it has been argued that whatever category an incumbent biases spending towards when insecure, is more visible (Veiga and Veiga, 2007, Aidt et al., 2020, Vergne, 2009, Akhmedov and Zhuravskaya, 2004, Katsimi and Sarantides, 2011).

The visibility hypothesis argues that when populations have low levels of information, incumbents are more able to manipulate investments towards visible investments to signal competence when they are politically insecure (Rogoff, 1990). The 'visibility' hypothesis therefore asserts that only populations with less information will deduce competence from intrinsically visible investments (Johannessen, 2019). This is because when the public has lower levels of information it is less able to assess the merits and consequences of less intrinsically visible or more long term investments and is therefore less likely to value them and politically support an incumbent for providing them (Binswanger, 1990).

Regardless of what is more visible, according to PBC theories, more visible investments will be favoured at the expense of less visible investments because they can help the incumbent gain political support due to the competence they signal (Glaeser and Ponzetto, 2018). And Mani and Mukand (2007) and Robinson and Torvik (2005) show how biasing spending towards these visible investments may waste resources but helps the regime consolidate power and gain public support, when insecure (Campbell, 2012, Arnold, 1990). Political competition therefore motivates incumbents to bias spending towards these more visible categories that key groups pay more attention to and care about more (Persson et al., 2000, Castro and Martins, 2018, Shi and Svensson, 2002).

2.3.4.1. Visibility and information

There is evidence that because of information asymmetries in MICs, that mean that the public needs to rely more on intrinsic visibility, decision makers prefer to allocate

resources to constructing new economic infrastructure projects, even if they remain empty and unused, than on improving social services(Cadot et al., 2006, Bogart, 2022). This is because they will get more credit for these easy-to-observe buildings but little or no credit -or even blame- for the quality of social services available(Mani and Mukand, 2007). Borger and Kerstens (1996), Afonso et al. (2005) and Bose et al. (2007) all find that low education levels contribute significantly to public spending inefficiency in MICs. And it has been argued that manipulation will be more harmful in contexts with less informed populations. This is because, rational, informed voters should be able to see through these manipulations while, imperfect information can lead to successful manipulations and inefficiencies(Coate and Morris, 1995, Rogoff, 1990). For example, Pierskalla and Sacks (2018) even argue that in developed contexts incumbents may avoid investing in large scale economic infrastructure projects for political support to avoid exposure to corruption investigations. Therefore in developed countries it is generally believed that this manipulation of the budget towards intrinsically visible investments is harder to implement and less likely to succeed(Shi and Svensson, 2006). In these contexts the informed²⁷ populace can limit opportunistic and wasteful public spending and incumbents are therefore less likely to manipulate funds out of fear of being caught(Ferejohn, 1986). And there is evidence that when the media is free and the public is more informed, it is harder for opportunistic incumbents to signal their competence through economic infrastructure(Pierskalla and Sacks, 2018).

In general, the public in MICs is believed to lack the necessary information to assess long-term investment policies and the performance of the incumbent, which leaves room for opportunistic behavior and harmful manipulation to thrive(Vergne, 2009, Brender and Drazen, 2005). And theories and empirical evidence related to the visibility mechanism all argue that incumbents will only be able to successfully manipulate the budget towards more visible categories when voters are uninformed(Mani and Mukand, 2007, Hönnige et

²⁷ Uribe[2015] showed that when the electorate was more educated expenditure shifted towards social infrastructure categories and away from economic infrastructure ones.

al., 2020, Marx, 2018, Heffetz, 2018, Ferris and Dash, 2019, Gingrich, 2014). Therefore in contexts where the public is more informed, there is evidence that political competition helps to alleviate adverse selection phenomena and asymmetric information (Rogoff, 1990, Vergne, 2009). This is because this information generates a vertical accountability mechanism that mitigates the harmful effect political competition can have on spending.

2.3.4.2. Information and salience

Both Selectorate and Partisan²⁸ PBC theories, that mainly apply to democracies, acknowledge the more ‘extrinsic’ aspect of visibility. They argue that politicians represent specific interest groups and therefore they will bias spending towards the sectors that their party and its supporters value²⁹ (Boulding and Brown, 2013, Green-Pedersen, 2007). This extrinsic aspect of visibility is shaped by the overall salience³⁰ of different categories of spending which determines the value the public assigns to them in determining their support. It is mainly affected by the information citizens have about spending and therefore the ease with which they can connect their preferences to this spending (Gingrich, 2014). And more salient³¹ investments are more visible and it is easy to assess the incumbents contribution to their provision which means they have a more powerful effect on support for the incumbent and subsequently their survival (McLean and Whang, 2019).

This highlights how the characteristics of the public will shape salience and that visibility will be influenced by information levels of key groups upon whom the incumbent relies on for political support. Indeed, according to Alesina and Roubini (1992) issue salience, which is highly contextual, will affect how visible different categories of spending are to

28 But if public opinion on economic issues varies primarily through an ideological left-right dimension, has resulted in the literature failing to explain manipulations and their compositions especially in countries that don't necessarily have this left-right divide [Barnes et al., 2021]

29 And even within White Elephants, issue salience can determine which form White Elephant investments take. For example, in Royal Dictatorships they can take the form of palaces, in military dictatorships they can take the form of military complexes and when religion is salient, they can take the form of extravagant mosques [Gjerlow and Knutsen, 2017].

30 The debate about whether issue salience influences decision-making has received great attention and according to Gingrich [2014]: “The concept of issue salience refers to the relative importance and significance that an actor ascribes to a given issue on the political agenda”

31 According to Lavine et al. [1996] and Avellaneda [2012], they are “frequently thought of and discussed with others” and are “closely related to people’s tangible self-interests, core values, and social identifications”

incumbents seeking political support. Therefore, manipulation will alter the composition of public investment depending on what items are perceived as more visible to key supporters in different contexts (Keefer and Vlaicu, 2005, Drazen and Eslava, 2010). The problem is that the literature that focuses on visibility and salience has focused on the salience of issues to partisan political parties, which is only a feature of democracies.

And different investments are more salient in developing countries. For example, the low initial levels of economic infrastructure in developing countries is believed to make them more salient and extrinsically visible in these contexts; whereas, social infrastructure is believed to be a secondary priority (Vortherms, 2019). And Morozumi et al. (2014) find that indeed in certain contexts, like Eastern Countries economic infrastructure investments are more visible because of their importance in the catching-up process of these MICs. There is even evidence that in MICs economic infrastructure investments are favoured so much that the public is willing to overlook rent-seeking, corruption, and fiscal irresponsibility if new construction works are being built³². This is because these new buildings and constructions ‘symbolize’ or ‘signal’ that incumbents are “promoting the public interest”, regardless of whether they are or not (Vukovic, 2019). And Musgrave (1990) argues that the salience of social infrastructure tends to be low when per capita income is low and that only when per capita income begins to rise, will demand for services such as health and education begin to rise, making them more visible (Adegboye and Akinyele, 2022). This suggests that social categories are more salient and visible in more developed countries (James et al., 2015). However, in developing countries where public opinion and lobby groups that highlight social welfare don’t have an institutional basis, these categories can be less visible to the public (Vortherms, 2019, Stasavage, 2005, Potrafke, 2010, Schneider et al., 2010).

³² There is evidence for this in Croatia and Nazi Germany

2.3.5. Forms

However, the literature is inconclusive with regards to the level of visibility of different spending categories because visibility can vary depending on how informed or myopic voters are. For example, Rogoff (1990) identified current spending as more visible than economic infrastructure, due to its 'immediate visibility'; however recent work that focuses on developing countries, suggests that intrinsic visibility matters more in developing countries and that economic infrastructures may be more visible than spending on social infrastructure or transfers (Khemani, 2004, Besley and Kudamatsu, 2006). And an increasing amount of research finds that in low information contexts or when transparency is low, intrinsically visible investments, like economic infrastructure, are preferred to investment in social infrastructure (Poterba et al., 1995, Mani and Mukand, 2007, Katsimi and Sarantides, 2015, Akhmedov and Zhuravskaya, 2004). On the other hand, it is believed that if information asymmetries do not exist, due to a strong media or a more informed population, the public will not need to rely on intrinsic visibility to deduce competence (Lewis-Beck and Paldam, 2000, Brender and Drazen, 2008). As a result, social infrastructure and transfers are only believed to be visible if information, transparency and the media make it more visible (Ramachandram, 2013). But although these arguments have been made theoretically and in some case studies, it has not been empirically examined if this is indeed the case in a sample of countries that includes non-democracies.

Because the characteristics and preferences of the public in different contexts-especially MICs- have not been considered by the literature, more visible expenditures have been operationalized as different categories in different studies. While authors such as Parra and Santiso (2009), Block (2002), Rogoff (1990) and Vergne (2009) assume that current spending and social infrastructures are more visible, authors like Klein and Sakurai (2015), Kneebone and McKenzie (2001), Bracco et al. (2018), Aidt and Eterovic (2011), Enkelmann and Leibrecht (2013) and Marquez-Velazquez (2019) find that economic infrastructure investments are more visible. And there is evidence that in different

contexts almost all categories of investment can be visible(Castro and Martins, 2018). Therefore, empirically, what category is 'visible' remains unclear, because while there is an intrinsic aspect to visibility, there is also an 'extrinsic' more variable aspect that relates to other context specific variables like salience, which is affected by the characteristics of the public and their priorities(Powell and Whitten, 1993, Harding, 2015).

1.1.1.1.1 Social infrastructure

In general, because empirical work on budget manipulation has largely been based on the study of developed democracies where the incumbent is more accountable to the general public, much of the search for policy feedback effects has centered on social infrastructure investments, one of the most salient policy areas to the broad public (Campbell, 2012). And this research indeed documents marked rises in social spending prior to elections(Alesina and Sachs, 1988, Swank, 2002, Kneebone and McKenzie, 2001, Schultz, 1995, Tufte, 1980).

But this is arguably only the case, because in many developed democracies, social investments in education, health, and social protection are considered to be valence issues and entitlements that mandate universal coverage, which makes them more visible and high on the public's list of priorities(Bove et al., 2017). As a result, in developed democracies voters themselves tend to favour social infrastructure, like education and health and reward incumbents with the same priorities(Bove et al., 2017). They can therefore be used to signal competence and increase political support from this broad, well-informed electorate(Abou-Chadi and Immergut, 2019). And indeed, Busemeyer et al. (2020) , Castro and Martins (2018) , Hübscher et al. (2020) and Jacques (2021) all argue that it is social categories that are popular and visible among the public and elections were found to increase social policy provision in developed democracies(Garay, 2016). And according to Lake and Baum (2001) in democracies when there is more political competition, better public good provision exists via more education and health investment than in dictatorships(Lott, 1999). And in India according to Kumar (2015) the 'appalling' situation of low public investment in health is unlikely to change, unless public

healthcare becomes a more salient³³ political demand and electoral issue that could win elections(Datta, 2019). In line with this it has been established that the visibility of a category of spending will depend on its importance in a country's developmental and political agenda(Bove et al., 2017 , Efthymoulou, 2012).

The problem is that empirical research to examine if there are manipulations towards social infrastructure in developing countries and non-democracies has been limited. However in a cross-national study of developed and developing democracies, Persson and Tabellini (2002)do not find statistically significant increases in social spending prior to or after elections. The argument is that social spending is an example of visible broad redistributive programs that benefits large groups of the population only in developed democracies, where nearly everyone agrees on the necessity and importance of social infrastructure regardless of their political loyalties. However, this is not necessarily the case in developing non-democracies (Stokes, 1963). And more recent literature that focuses on developing countries does not find evidence that social infrastructure is more visible (Sanz and Velázquez, 2002).

So, with regards to visibility, because most research to this point has focused on developed contexts, it has been argued extensively that social infrastructure like education and health is visible and salient because they offer more clearly defined benefits for an informed public and because they represent a form of social protection against skills obsolescence that most citizens demand in a knowledge economy(Busemeyer and Garritzmann, 2019). This was believed to be in contrast to investments in economic infrastructure, that were considered to be less visible and offer fewer immediate and tangible benefits (Jacques, 2021, Rogoff, 1990). This, however, seems to be mainly the case in more developed 'knowledge economies', where the public is more informed. Whereas in MIC's there seems to be evidence that leaders prefer intrinsically

³³ This would also explain for example why social spending is more visible and has higher priority in Scandinavian countries and why there are more elaborate transport systems in the Unites States [Esping-Andersen, 1990].

visible investments to symbolize their power and signal their competence (Gjerløw and Knutsen, 2017, Small, 2017). And as I show below, in developing countries there is more evidence that intrinsically visible economic infrastructure is preferred by the public and opportunistic incumbents.

1.1.1.1.2 Economic infrastructure

So although it was initially believed that current spending and social infrastructure were more visible; with the rise of research in non-democracies and MIC's it has been suggested that when the public is less informed, the incumbent will favour more intrinsically visible investments (Jacques and Ferland, 2021, Ferris and Dash, 2019, Mullin and Hansen, 2022). This is because the benefits of less intrinsically visible social infrastructure investments like health and education may take decades to materialize to the public, especially if the media and the public are less informed about the 'invisible' benefits of long-term education and health spending. So, because it is hard for less informed citizens to evaluate the quality and efficiency of social investments, or identify who is responsible for breakdowns or improvements, in MICs with imperfect information, it becomes difficult for citizens to assign credit for them. This makes incumbents have a lower incentive to provide them and instead they prefer to build more intrinsically visible economic infrastructure (McArthur, 2017). This is because they are intrinsically easy to observe by the public and can therefore be used to signal competence and government action (Mani and Mukand, 2007, Siemiatycki, 2018, Robinson and Torvik, 2005, Sanz and Velázquez, 2002). They also emphasize modernity and boost civic pride and state power, which makes them more visible 'prestige projects', especially in MICs (Dalakoglou, 2010, Gupta, 2018, Sewell, 1987). And due to this intrinsic visibility, it is argued that biases towards these tangible investments is found in MICs with low information, while less 'glitzy' and visible projects will be neglected (Rodriguez-Pose and Fratesi, 2000, Kenny, 2008).

Empirically, Krueger (1974) and Bates (1981) found that elections were important in explaining economic infrastructure investment in Turkey and Zambia. And Veiga and

Veiga (2007) and others find that economic infrastructure investments are more visible in Portugal, Columbia and India (Drazen and Eslava, 2010, Baskaran et al., 2015, Golden and Min, 2013). Alok and Ayyagari (2020) and Beek (2010) also find that incumbents increase spending on economic infrastructure due to its visibility in the lead up to elections because it is easily attributable to incumbents via ribbon cutting and intrinsic visibility, which allows them to take credit for these investments (McArthur, 2017, Schneider, 2010).

Today, most research³⁴ in MICs suggests that economic infrastructure may be more visible and country-specific studies that focus on developing countries have generally confirmed stronger patterns for manipulations towards economic infrastructure. In these contexts there are arguments that the benefits of increased spending in education and health tend to be 'invisible' and can therefore happen out of public sight (Stokes, 1963, Jacobs, 2016). On the other hand, the benefits from investing in economic infrastructure can be quicker to materialize as soon as construction is finished or even as soon as ground is broken. The increasing availability of private education and health alternatives in developing countries, also means that the middle classes could reduce support for social infrastructure investment and may increase demand for economic infrastructure investment instead (Elkjær and Iversen, 2022, Morozumi et al., 2014). As a result, there are arguments that for the average citizen in MICs the ultimate outcome of social investment is fraught with uncertainty (Jacobs and Matthews, 2017). In conclusion, it seems that economic infrastructure projects are better able to overcome information asymmetries that plague MICs than investment in social categories, such as education and health (Kahn and Zimbalist, 2022, Keefer and Khemani, 2003). This suggests that economic infrastructure investments are more visible in MICs.

The problem is that the harmfulness of this manipulation is exacerbated in MICs, where intrinsically visible economic infrastructure projects can 'wow' the public by invoking a sense of awe and fascination, boosting civic pride, and representing power. This is

³⁴ For an overview of this research, see Vergne [2009]

especially the case in contexts with low information where these investments are easily attributed to incumbents, enabling them to take direct credit for them and can therefore be trumpeted by the media when necessary. Mesquita et al. (2004) explain how, especially in MIC's, leaders may pursue these visibly impressive projects to strengthen their political support, by showcasing their competence and achievements, helping to bolster their image both domestically and internationally. And when the public is less informed, grandiose infrastructure projects can be implemented as symbols of national pride, prestige and progress, even if they aren't economically rational or necessary, especially in MICs (Scott, 1998, Smith and Mesquita, 2011, Hall et al., 2015). And there is evidence³⁵ of this in contexts as diverse as Latin America, Denmark, India, Germany, the USA and Europe, where leaders pursue large scale economic infrastructure projects for political purposes which compromises their economic efficiency and often results in them becoming WE (Tufte, 1980, Healy and Lenz, 2017, Lewis-Beck and Stegmaier, 2013, Levi and Stoker, 2000).

In conclusion, this review highlights how in developed contexts where the population is well informed, social infrastructure investments are more salient and visible and therefore more appealing to opportunistic incumbents, but in contexts where this is not the case, the public will deduce competence from intrinsically visible economic infrastructure projects. Problematically, it is also in these very contexts where vested interests and more malleable voters, can increase cost miscalculations and therefore many of these economic infrastructure projects can become WE and fall prey to collusion and clientelism, highlighting why these contexts must be studied more extensively (Cadot et al., 2006, Kemmerling and Stephan, 2002, Flyvbjerg, 2009).

In the case-study, I shift my focus from the functional categories of investment to large scale economic infrastructure megaprojects. This is because many of these wasteful investments are biased towards economic infrastructure megaprojects that often become,

³⁵ See Conniff [2012], Chibber [2003], Hall et al. [2015], and Flyvbjerg [2014].

WE³⁶. Megaprojects in general are believed to be political and a means to solidify political support, rather than be economically efficient, which highlights how their political motivations must be analyzed (Altshuler and Luberoff, 2003). In MICs many of these projects are criticized for their top down nature, their lack of transparency and accountability and are mostly described as ‘elite playing fields’ (Hannan and Sutherland, 2015). And since the 1970’s, megaprojects have become even more wasteful and problematic and have been found to not even fulfill the previous functions of providing jobs and housing. Instead they have mainly been fulfilling political purposes, especially in MICs (Orueta and Fainstein, 2008). And today, there are numerous abandoned or wasteful projects in MICs (Okenyi et al., 2023, Ahmed and Othman, 2013). And even though megaprojects and budget manipulations exist in Upper Income Countries, they are not as problematic because, as I outlined above, MICs lack many of the basic features that drive megaproject success and reduce harmful manipulations (Kohsaka, 2006). There is therefore significant empirical evidence that the institutions and societal realities associated with developed countries can alleviate the negative effects of manipulation by increasing accountability (Shi and Svensson, 2006). Information problems, institutional deficiencies, clientelism, collusion and corruption³⁷ are all among the key factors identified that result in many of these investments becoming WE in MICs (Williams, 2017, Gill and Kharas, 2007, Locatelli et al., 2017).

2.4. Gap and Contribution

Even though today infrastructure development in MICs is a world-scale challenge, there remains a dearth of empirical studies on the political determinants of investment in these contexts. This dissertation was therefore motivated by the increasing prevalence of

³⁶ Historically, the term White Elephant refers to a ‘gift’ that cannot be sold or transferred and may result in the bankruptcy of the receiver. The word has widely been used in relation to public infrastructure investments that represent a severe misallocation of resources that has disastrous intergenerational consequences for the economy [Henisz and Zelner, 2005]. And even if they have some benefits, they entail financial obligations that are too heavy for the public, who are supposedly receiving the ‘gift’; they therefore have a negative net value and diminish a society’s resources [Appel, 2014]. They are described as ‘large-scale and high-risk investments’ [Gold and Gold, 2008].

³⁷ Croix and Delavallade [2009] argue that as development level increases, countries are less susceptible to corruption, and they therefore decrease their allocation of investment towards economic infrastructure in favour of social infrastructure. According to them, in upper income countries, incumbents will invest more in social infrastructure categories for political support.

inadequate and unproductive economic infrastructure investments especially in MICs, that has not received enough scholarly attention. And today, the economic downturn that has followed the Covid-19 pandemic has made this puzzle even more relevant and has drawn attention to the increased risk of these unproductive investments; especially since many governments have crudely used increased economic infrastructure investment as a panacea in response to many economic troubles (Terrill, 2021).

Although the literature points to the fact that manipulation will be more harmful in MIC's, it has not examined what forms these harmful manipulations are more likely to take and how institutional and societal variables can shape this manipulation. In Chapters 3 and 4, I examine these contextual properties in MICs that theoretically mean manipulation is more likely to be harmful. This allows me to look closer at what categories of investment are more visible and targetable and subsequently politically valuable in the contexts where they are more likely to result in inefficiency. This is an important step towards identifying what form wasteful investments are more likely to take in MICs.

By focusing on advanced democracies, previous studies have not been able to explain manipulations elsewhere. For example, there is not much work on what incentivizes manipulation beyond elections³⁸, especially in non-democracies, where manipulation is believed to be more harmful. By focusing on a measure of political competition that is relevant to both democracies and non-democracies, I contribute further to understanding the political allocation of investment. This is necessary to understand what forms manipulation takes and to identify the symptoms of unproductive investments early on.

Also, by focusing on “cycles” and the immediate lead up to elections, the literature has missed that most of the informal and formal politics of redistribution actually happens

³⁸ Previously, any research that has discussed manipulations and their composition has focused on ‘elections’ and ‘cycles’. This ignores the fact that there are motivations beyond elections that push a government to manipulate the budget in contexts where elections are not meaningful or there are no elections at all.

between elections³⁹(Golden and Min, 2013, Williams, 2017, Raveh and Tsur, 2017).

Therefore, by focusing on elections and their temporal proximity as the only motivation by which incumbents will manipulate spending, the PBC literature failed to reach any substantive and generalizable conclusions. So, to address this gap, I focus on the broader mechanism through which political uncertainty shapes budget manipulations: political competition.

I also focus on the forms these manipulations take. There is no comprehensive work on what constitutes visible and targetable spending; different categories are specified in different contexts and different works are scattered case-studies and inconclusive. These studies often focus on one category of spending at a time or focus on current versus capital spending. There is no large N work that combines the incentives to manipulate with the conditioning factors that affect not only which categories are more prone to manipulation but also determine the ability of an incumbent to manipulate the budget and the likelihood of manipulations success. Works on MICs are also mainly case studies that focus on democracies. And although they have indeed suggested that visibility and targetability are not intrinsic traits, this has not been tested across a large sample of countries.

The variables that shape visibility and targetability have also not been included in these studies. For example, although Enkelmann and Leibrecht (2013) examine what category of spending increases in line with elections, they do not disentangle why this is the case. As a result, even though it is accepted that incumbents manipulate spending to remain in power when their tenure is threatened, the tools used beyond aggregate spending have not received enough empirical attention, especially in MIC's, where the effect of this political manipulation on spending and growth can be even more problematic. And it remains unclear what forms manipulations take in different settings.

³⁹ This can be long before elections because it often takes a long time to organize and maintain a clientele or even after elections[Meloni, 1995].

To address this gap, this dissertation attempts to explain the allocation of political spending and shed light on the political dynamics behind compositional changes in public investment. This review highlights that a more disaggregate view will need to be taken to uncover the nuances of this relationship because different categories of investment have differential appeals to incumbents in different contexts. The previous focus on aggregate measures hid many of the intricacies involved in this causal relationship and ignored how contextual realities affect the allocation of public infrastructure investment, subsequently affecting its contribution to growth. Existing models therefore fall short by focusing on the changes in the overall budget and even when the budget was disaggregated, assuming that ‘targetability’ and ‘visibility’ are intrinsic characteristics assigned to certain categories of spending means the literature missed something critical. As I demonstrated in this review, manipulation is biased towards categories with certain features and not just different sectors and therefore manipulation will increase spending on more visible and targetable categories. And even though more recent literature highlights the importance of distinguishing between targetable and non-targetable and visible and non-visible categories of investment, such a classification is not readily available or straightforward. And a comprehensive empirical evaluation of it for a large sample of countries is yet to exist. It is therefore not yet clear *how* the government manipulates the budget in response to political motivations and which spending categories are preferred by different groups in different contexts and why.

2.5. Theoretical Framework

The categories of spending that are more visible and will increase with political competition will change in different contexts depending on how informed the population is. And the categories of spending that are more targetable will also depend on how able an incumbent is to narrowly target investments towards key elites. Therefore, the key insight of my theory is that how political competition affects the composition of the

budget depends on contextual differences that can affect the targetability and visibility of different categories of spending, which shapes their political value.

As a result, I argue that in MICs beset by features like corruption, lack of transparency and low voter information, many incumbents have acquired a distinct taste for large, visible, and wasteful economic infrastructure investments driven mainly by political motivations. I argue that this is because they are more visible and targetable in these contexts, which makes them politically valuable. The problem is that, theoretically, this catering to voters can upend efficient and intelligent spending decisions, compromising their efficiency; this is especially the case in contexts with low accountability⁴⁰.

When voters cannot effectively monitor fiscal policies and when institutions cannot constraint the incumbent from acting opportunistically, politics will distort spending efficiency (Shi and Svensson, 2006, Alesina and Paradisi, 2015). And therefore, the extent of political manipulation towards inefficient categories depends on the extent that the institutional setting and voter knowledge induces accountability (Raveh and Tsur, 2020). When political competition is high, and there is low accountability, incumbents can manipulate spending towards more visible and targetable investments that are rewarded by key groups. However, this will compromise their efficiency. Although the contribution of different investments to economic growth is beyond the scope of this dissertation; my findings will contribute towards understanding this puzzle.

Theoretical evidence suggests that economic infrastructure investment may be more visible in MICs (Ferejohn, 1986, Bates, 1981, Tanzi and Davoodi, 1998, Keefer and Knack, 2007). This is because the intrinsic visibility of economic infrastructure makes it more visible in contexts with lower education levels and information asymmetries (Khemani, 2004, Jensen and Malesky, 2018, Jensen and Justesen, 2014). And in contexts where there

⁴⁰ Misallocating resources due to political motivations can reduce the efficiency and productivity of investment, especially in contexts where vote buying is rampant and the public is less informed [Combes et al., 2019, Belcaid, 2022].

are more opportunities for discretion and corruption, economic infrastructure is believed to be more targetable to key elites and offer more opportunities for rent-seeking (Casas, 2020, Weingrod, 1977).

2.6. Main Argument

In conclusion, my main argument is that the characteristics of certain categories of investment shape their appeal to politically insecure leaders. Specifically, the extent to which a category of investment is 'targetable' or 'visible' will determine the likelihood of responsiveness in the form of budget manipulation when political competition is high. However, as demonstrated in this chapter, these characteristics are not clear-cut criterion and different researchers describe different categories of spending to be more targetable or visible in different contexts. This highlights the gap that I wish to address by showing in my dissertation how the information levels of the public can define how visible certain investments are. The institutional environment that provides or restricts opportunities for narrow targeting and patronage will also shape which categories will be more targetable. The next chapter will therefore examine which sectors of government spending are more targetable and will be favored by opportunistic and insecure incumbents in different contexts that allow different degrees of freedom for incumbents motivated to engage in narrow targeting.

2.7. Conclusion

In this dissertation, to help explain the bias towards economic infrastructure and existence of WE in MICs, I provide evidence of how economic infrastructure investments can be both visible and targetable in certain contexts with certain features which theoretically affects their productivity.

This literature review demonstrates how, although, traditionally political competition was shed in a positive light in the political economy literature, in that it makes incumbents more sensitive and responsive to the public's demands, evidence of harmful budget manipulations have brought to light the negative impact political competition can have

on the provision and efficiency of investment. This is mainly when political competition is not accompanied with accountability from the public and/or institutions. So, after it became clear that political competition does not always lead to increased efficiency in the allocation of spending, especially in certain contexts, the literature on the negative effect competition can have on the provision of spending followed two main branches. The first argues that incumbents target spending to key groups in return for political support. If the institutional environment allows incumbents to narrowly target spending to key elites, then this may compromise its efficiency. In Chapter 3, I analyze what incumbents bias spending towards when political competition increases, in contexts with low rule of law, executive constraints and high corruption, where theoretically investment can be targeted to narrow elites, hindering its economic efficiency.

The second branch argues that incumbents will focus on the provision of ‘visible’ spending to signal their competence. However, according to arguments on visibility, what is more visible will depend on the information and education levels of the public. So, in Chapter 4 I focus on visibility and examine what incumbents bias spending towards in response to political competition when the public is less informed and there are lower levels of transparency and media freedom that theoretically influence the visibility of different categories of investment. By doing this, I highlight what form manipulations will take, when theoretically, contextual factors mean manipulation will more likely be inefficient and wasteful. This will allow me to explain why MICs often overinvest in wasteful economic infrastructure and underinvest in social infrastructure.

To summarize, both these mechanisms assume that opportunistic leaders will make investment decisions to increase the likelihood of their political survival, regardless of the efficiency and necessity of these investments. The underlying logic of both arguments is that political competition- by threatening the incumbent’s survival prospects- provides the main incentive for incumbents to manipulate the budget towards these ‘visible’ or ‘targetable’ investments.

Collectively, this will help explain why there is a bias towards economic infrastructure investments and away from social infrastructure investments in contexts with low accountability, where theoretically these investments will be more wasteful. This will contribute to our understanding of the political determinants of wasteful WE that I look at in closer detail in Chapter 5. In Chapter 5, I supplement my findings with a case study where I demonstrate how this causal mechanism operates and disentangle visibility and targetability and highlight how they can overlap and contribute to survival. This allows a further examination of the link between budget manipulation and inefficient outcomes and WE.

Chapter 3: Targetability and Horizontal Accountability in MICs

As I outlined in Chapter 2, political competition was initially thought to mitigate the negative effect of budget manipulation in initiating wasteful projects by providing a check on opportunistic politicians. This suggests that if these checks do not exist, political competition may exacerbate misallocation towards wasteful investments that may be politically valuable but are more likely to become economically harmful. Theoretically, these checks can come from an informed public or from strong governance and they condition the effect of political competition on the composition of investment by impacting the effectiveness of manipulation at signaling competence and the ability to target to narrow interests.

There is theoretical and empirical evidence that when horizontal and vertical accountability are low, public investment is used for political purposes and is wasteful⁴¹, this hampers long term productivity and economic growth, creates WE and ultimately contributes to the MIT (Ivanovic et al., 2023). For example, certain features like corruption and low rule of law will increase the ability of an incumbent to narrowly target investments via patronage, which undercuts investment performance (Stokes, 2005). In this chapter and in Chapter 4, I focus on contexts where theoretically this manipulation is more likely to result in wastefulness. To do this I subset my data to contexts with features by which theory expects manipulation to result in wasteful investments and WE. This is because even though there is empirical evidence that incumbents in democracies and non-democracies, developed countries and developing countries manipulate spending for political purposes, this is not always done towards the same sectors and does not always lead to inefficiencies and wastefulness.

41 When this is the case, the state becomes a ‘money wasting machine’ according to Pavlovic[2016]

3.1. Introduction

A number of factors can explain reduced levels of economic development and the MIT via its effect on the misallocation of public investment (Karayalcin and Ulubasoglu, 2009). And many of the features of MICs that affect the composition of manipulation also affect which categories of investment will be more targetable. For example, the incumbent is believed to only be able to narrowly target spending in certain contexts. And even in democracies, it is generally believed that if institutions are weak and special interest groups are influential there will be more manipulation via narrow targeting (Keefer et al., 2020, Romer, 2003, Broilo and Nannicini, 2012b). This suggests that the weaknesses of institutions will determine whether political competition will have a negative effect on investment allocation (Acemoglu et al., 2014, Kaufmann et al., 2003).

Although higher spending as a response to elections has been described as a way to fuel elite clientele and garner political support, especially in developing countries⁴² (Drazen and Eslava, 2010); the role of elite capture and narrow targeting has not been given enough attention within the PBC literature (Stolfi and Hallerberg, 2015). Narrow targeting is more appealing than universal policies in developing countries and as a result, studies have documented increased clientelism in these contexts (Weitz-Shapiro, 2012, Kitschelt and Wilkinson, 2007, Levitsky, 2007, Dawson et al., 2023). Since it became clear in the literature review that political competition will only lead to more harmful manipulation, when certain institutional features affect the ability of an incumbent to narrowly target investment to key groups, these are the contexts that I focus on in this chapter. To this end, I compare the responses of different sectors of investment to political competition by running separate group analyses that test the effect of political competition on the allocation of investment in contexts with low levels of horizontal accountability.

Theoretically when rule of law or executive constraints are low or corruption is high⁴³,

⁴² There is significant evidence of this political clientelism as a response to elections in developing countries [Kyriacou, 2023; Hicken, 2011; Stokes, 2011]

⁴³ This is in line with Kyriacou [2023] who proxies government quality to weaken clientelism and narrow targeting by rule of law and corruption.

incumbents have more discretion⁴⁴ to narrowly target spending to key groups, and this form of elite capture undermines the efficiency of this spending⁴⁵(Guardado and Wantchekon, 2018, Mookherjee and Nath, 2023, Brollo and Nannicini, 2012b). I therefore focus on these contexts.

In line with theoretical expectations, I expect that when the incumbent is institutionally constrained via high rule of law, executive constraints, or low corruption, they will not be able to manipulate investment towards narrow groups. Whereas when this is not the case, the incumbent will be more able to target investment towards key groups⁴⁶ when their survival is in question. I expect that when an incumbent has more discretion, they will bias spending towards economic infrastructure that is more targetable to narrow interests.

3.2. Targetability and Horizontal Accountability

Incumbents use investment to consolidate their power, primarily when they are feeling insecure. One of the ways this is done is by targeting key groups who are indispensable to survival (Epperly, 2016, Mesquita et al., 2004). This contributes to survival by co-opting key elites, undercutting rivals and enmeshing the public in lasting relations of dependence and patronage(Albertus et al., 2018). And there is empirical evidence that inefficient investments can arise when targeting is towards narrow interests, which will only be possible when constraints on the incumbent are low(Acemoglu et al., 2001, World-Bank, 2017).

Generally, most studies argue that government spending is more efficient and less wasteful when institutions provide a check on government(Svensson, 1998). This is because even though all leaders are concerned with survival, competition with accountability, can result in a positive ‘reputation building’ effect described by Besley and

44 The degree of discretion an incumbent is awarded has generally been overlooked in the literature on PBC’s

45 And there is an established link between narrow targeting and clientelism and lack of economic development[Besley and Kadamatsu, 2008; Stokes, 2009]

46 And the political advantage of this clientelism will be high[Mizuno and Okazawa, 2023]

Preston (2002). However, without accountability it can result in over and underinvestment and wasteful investments (Raveh and Tsur, 2017). And the literature highlights the role of governance and institutions in limiting the ability of incumbents to target narrow interests⁴⁷ and mitigate this positive ‘reputation building’ effect. There is evidence that weak horizontal accountability mechanisms mean that policies and spending can be targeted towards elites and narrow interests (Lake and Baum, 2001).

Therefore, I split my sample according to factors that promote horizontal accountability and are relevant to the disciplining effect political competition is thought to have on investment allocation. To understand which categories of investment are more likely to be harmful, in this chapter I empirically test which categories of public investment will increase when political competition increases, in contexts where horizontal accountability is compromised.

Theoretically, in contexts with strong institutions, incumbents are more accountable to a broader public which gives them a bigger incentive to target social services and redistribution to this wide group than spend on ‘rents’ and target investments to a narrow elite (Olson and McGuire, 1994, Stasavage, 2005). Because of this accountability to the public, they are thought to care more about the long-term prospects of their investment decisions and prefer investments with diffuse benefits like social infrastructure investments and transfer payments (Niskanen, 1997, Lake and Baum, 2001, Dodlova et al., 2017). This was previously thought to be the case in all democracies and Deacon (2009) indeed finds that purely democratic governments bias investments towards the more broadly targetable categories of primary education, health and social protection, that a large segment of voters will benefit from and subsequently prefer (Plumper et al., 2005, Brown and Hunter, 2004, Gingrich, 2014).

⁴⁷ See Besley and Case [1995]

However recently it has been accepted that even in democracies the state can become captured by private interests⁴⁸ and manipulation can become endemic(Diwan et al., 2020). Empirically, this is mainly believed to be the case in MI democracies with low institutional constraints that allow the state to be captured by narrow private interests (Alesina and Perotti, 1996, Deacon, 2009, Albalade et al., 2012). So although targeting happens in all contexts, the issue, with regards to productivity-arises when this targeting is towards elites or narrow interests, because this reliance on elites means that short-termism will increase through manipulation and patronage which can result in unproductive spending(Chiot, 1978, Grossman and Helpman, 2001).

In these contexts, if the incumbent can, they will offer these key elites targeted concessions through economic infrastructure with favorable contracts. This also means that they will do less broad redistribution and that targeted spending towards a narrow elite will be, cheaper and more useful for political support(Olson and McGuire, 1994, Mesquita and Downs, 2005, Keefer and Vlaicu, 2005). So, when they can, these incumbents 'buy' the political support of these key groups through targeting spending towards them and as a result there are fewer incentives to provide long-term social infrastructure(Wigley and Akkoyunlu-Wigley, 2011, Giuliano et al., 2013, Haan and Sturm, 2003). Empirically, this can result in a reduced focus on spending on social infrastructure investments in public health and education and a bias towards economic infrastructure investments that these elites prefer according to Lake and Baum (2001) and Deacon (2009).

This mechanism is more prevalent in MICs where governments tend to be less accountable to the broad public and more predatory(Mogues, 2015). The higher discretion incumbents tend to have in these contexts, allows them to provide fewer productive

⁴⁸ This is known as crony capitalism

public goods⁴⁹ because they only care about the welfare of an elite subset of the population(Olson and McGuire, 1994, Keefer and Knack, 2007). Incumbents in these contexts will prefer the provision of pork and patronage, which means that they can deliberately hinder economic development to remain in power(Kim and Lim, 2018, Overland et al., 2005). As a result, they may over invest in rent-seeking activities within economic infrastructure and manipulate the budget towards projects favoured by these key groups to neutralize the opposition(Plumper et al., 2005, Boix and Svobik, 2013, Gandhi and Przeworski, 2007). And in general, it is believed that when incumbents are subject to less constraints and there is more corruption, they spend more on economic infrastructure because they are more able to pursue these large-scale infrastructure projects(Demarest, 2021). Increased discretion allows them to be more personalist so they pursue these projects for rent-seeking, prestige and patronage and to signal their power and competence both at home and abroad(Gjerløw and Knutsen, 2017, Przeworski and Limongi, 1993). They are also allowed to be more aggressive and opportunistic in their spending and are able to continue to make expensive and wasteful spending choices, that primarily benefit a narrow elite(Shonchay, 2010). Therefore, in this chapter, I look at the contexts in which, theoretically political competition is more likely to motivate harmful investments via narrow targeting. Specifically, I look at what form these targetable investments will take when rule of law or executive constraints are low and when corruption is high.

3.3. Argument and Theoretical Framework

Wasteful investments and WE, with diminishing returns can come about due to political distortions in the allocation process, that encourage biasing investment towards more visible and targetable sectors for prestige, patronage and profit and ultimately political support. This effect is likely to be negative when accountability is low and positive when

⁴⁹ But there are arguments that some non-democracies will redistribute more and provide more social protection[Mulligan et al. 2010] And even though initial arguments by Olson[1993] claimed that social protection would be preferred in democracies; recent evidence shows that social protection can be targetable in nondemocracies to a narrow group of the dictators' allies.

accountability is high⁵⁰. These political distortions or motivations have not received enough attention in the literature, particularly in non-democracies and MICs and this is what this dissertation aims to explain.

Horizontal accountability can weaken clientelism and narrow targeting because it can limit the ability of an incumbent to distribute to narrow clients. Horizontal accountability is compromised when there is low rule of law or executive constraints and high corruption, which increase narrow targeting, which increases the risk of WE⁵¹ (Caplan, 2007, Efthyvoulou, 2012, Kouvavas, 2013, Scott, 1999). Theoretically, these factors contribute to poor resource allocation and can create large-scale costly projects that are narrowly targeted and do not yield proportional benefits and can encourage pork-barrelism via economic infrastructure investment.

Therefore, in this chapter I interpret evidence of increased economic infrastructure investment in response to political competition as evidence of narrow targeting⁵². This is based on arguments that the efficacy of politics in affecting spending via harmful targeting depends on constraints on the ability of governments to exercise discretion (Raveh and Tsur, 2017).

Rule of law, executive constraints and corruption can affect the power that the executive branch has to manipulate the budget in line with its interests⁵³. As a result, recent studies argue that investment will only have a positive effect on growth when a country has good governance and strong institutions (Rajkumar and Swaroop, 2008, Rodrik et al., 2002). Arguably this is why the link between investment and economic development is low in MICs⁵⁴ (Gomanee et al., 2005).

50 See Person and Tabellini[2003]; Keefer[2005]; Knutsen et al. [2015] and Dewatripont and Seabright[2010]

51 And indeed, one facet of this low horizontal accountability is that one would build “bridges to nowhere.”

52 According to Demarest[2021] and others, economic infrastructure investments are particularly targetable towards narrow interests.

53 It is generally believed that when institutions are weak, policy makers engage in more rent-seeking which may reduce economic growth via increasing budget manipulation [Murphy et al. 1991].

54 And the World Bank contended in the 2004 World Development Report that the weak link between spending and growth is due to poor targeting of investment and the reduced focus on the broad population in favour of the elites in these MICs.

Targeting towards narrow interests can result in the initiation of wasteful projects; but even if all incumbents would rather target their spending narrowly, not all incumbents are able to do this, and certain institutional factors will affect their ability to do so (Gingrich, 2014). As a result, there are theoretical arguments that the negative incentives political competition can have on investment can be mitigated in contexts with high accountability and other institutional constraints; while in contexts where institutions are not well established, political competition can maximize the incumbents control over the distribution of spending and resources, increasing narrow targeting and harmful manipulation (Robinson and Acemoglu, 2006). These institutions therefore determine whether or not resources will be managed efficiently and can help explain suggestions that not all incumbents manipulate the budget in the same way or at all (Esfahani and Ramı´rez, 2003, Rodriquez-Pose et al., 2018). I focus on contexts with low rule of law or executive constraints and high corruption because these factors can increase malfeasance and misallocation of resources towards narrow interests which can potentially waste resources and make resource allocation inefficient.

To summarize, in this chapter I argue that an incumbent’s ability to target spending towards narrow groups can be derived from the variation in political constraints which in turn determine the provision and allocation of investment in response to political competition. In settings with high corruption or low rule of law or executive constraints, government officials can select inefficient projects to cater towards the interests of key elites and large firms at the expense of efficiency and economic growth. This can lead to WE (Rodriquez-Pose et al., 2018, Flyvbjerg, 2011). This explains why recent research suggests that public investment will only lead to better outcomes in countries with low corruption and high executive constraints and rule of law (Rajkumar and Swaroop, 2008, Rajan and Subramanian, 2011, Rodrik et al., 2002).

3.3.1. Hypothesis

Political discretion increases narrow targeting and patronage which decreases the efficiency of investment (Colonnelli et al., 2020). My main argument arises from suggestions that government quality in general can help explain wasteful public investment. I argue that this is because, in the absence of proper governance and institutions, political competition can increase narrow targeting, which can result in a proliferation of WE and wasteful investments. As I showed in the previous chapter, there is evidence that economic infrastructure investment is more targetable towards narrow interests (Ferejohn, 1986, Bates, 1981, Tanzi and Davoodi, 1998, Keefer and Knack, 2007, Ferris and Dash, 2019). Therefore, when key groups are elites, economic infrastructure is believed to be better targeted towards them (Khemani, 2004, Jensen and Malesky, 2018, Jensen and Justesen, 2014). New contracts can be given selectively and may be targeted to well defined geographic areas or sectors and there is also more room for bribery, corruption, rent seeking and maneuver within economic infrastructure making it more targetable towards elites and allowing inefficient networks of patronage to emerge (Ardanaz, 2017, Wade, 1992, Keefer and Knack, 2007). Therefore, in contexts where there are more opportunities for discretion and corruption, I argue that economic infrastructure is more targetable. My main hypothesis is:

H₁: In MIC, with low rule of law, executive constraints or high corruption, the incumbent is more able to target spending to narrow constituents and elites, so economic infrastructure will increase with political competition at the expense of social infrastructure.

I further explore, which categories within economic and social infrastructure are more targetable, to enhance the policy implications of my findings and enable the symptoms of potentially wasteful investments to be realized earlier on.

3.3.2. Sample

For my empirical analyses, I focus on Middle Income Countries⁵⁵, which means my dataset has 62 countries with 27 years of observations for each country[1990-2016]. I focus on the subsamples of my dataset with accountability attributes that should theoretically create the most harmful manipulations. And in line with Ademmer and Dreher (2015), instead of a linear effect of these variables, it is more intuitive to assume that there may be a certain threshold that needs to be passed for countries to have a sufficiently strong institutions or accountability to constrain manipulation. To test this assumption, I divide the sample into strong versus weak values of these variables and focus on the weak contexts⁵⁶. Specifically, in this chapter I focus on contexts with low rule of law, low executive constraints and high corruption.

This study limits its core empirical analysis to low accountability MICs, which is both theoretically and empirically justified. As I outlined before, theoretically, these are the contexts in which political competition is most likely to produce distortive investment behavior. Empirically, the number of high accountability MICs in the dataset is extremely small, limiting the reliability and interpretability of results in that subgroup. As such, the core focus remains on the contexts where the political value of investment is most likely to compromise its economic function. And including high accountability results would not even serve a robustness function here, given the limited sample and lack of theoretical justification for expecting significant effects in those settings⁵⁷.

Running separate group analyses allows me to estimate different models for each category, which provides transparency and clarity with regards to the relationship between the independent and dependent variable in each group. This allows me to

55 The most recent classification of the World bank defines low-income countries as those with GNI pr capita of \$1,135 or less, low middle-income countries \$1,136 to \$4,465, high middle-income countries \$4,466 to \$13,845 and high-income countries are those with a GNI per capita above \$13,845.

56 This is like Veiga et al. [2017]

57 Nonetheless, I include these results in the appendix.

effectively isolate the impact of political competition, only in the contexts where theoretically it is believed to have a negative effect. This has been recommended over interaction effects especially when there is no substantial overlap between groups. This is also because interaction effects rely on the assumption that the relationship between the independent variable and the dependent variable is consistent across groups. However, I argue that the effect of political competition on investment is nonlinear. This means that interaction terms may impact the validity and robustness of my results. Since I am only interested in manipulation towards potentially and theoretically wasteful categories, I focus solely on these settings. And most strategies to measure the effect of context on budget manipulation, rely on splitting the sample, which is more efficient at capturing unique or distinct contextual dynamics. As a result, this method has been recommended⁵⁸ and implemented in several similar studies⁵⁹.

In line with similar research, splitting the sample is done according to the median value and countries are classified as having “high” or “low” transparency for example, where for each measure of transparency I put countries into the “high” [“low”] group if transparency is above [below] the sample median. Although, this separation is imperfect it provides models that are easier to interpret. This has been implemented in most similar studies⁶⁰.

In a split sample analysis, I fit one regression for each group, allowing the coefficients for all Xs to vary. This is equivalent to running a fully interacted regression⁶¹. And in most similar research it is found that estimating by splitting the sample yields results that are similar to including a dummy as well as the interaction (Gootjes et al., 2020). By splitting

58 By Marcel Fafchamps and Julien Labonne[2016]; Ratkovic[2020]; Blackwell and Olson[2020] and Iacobucci[2015]

59 Splitting the sample is common practice in the literature on political budget cycles see for example: Lindberg et al. [2024], Garcia and Hayo [2024], Crombach et al. [2022], Bohn and Sturm [2020], Lokshin et al. [2023], Ugur [2014], Han [2021], Ademmer and Dreher [2014], Klomp and De Haan[2013], Brender and Drazen[2005], Nannicini et al. [2013], Kouvavas[2013], Efthyvoulou [2012], Alesina and Paradisi[2016], Shmuel [2020], Repetto [2017], Vortherms [2019], Shi and Svensson [2002], Alt and Lassen[2005], Geys[2007], Bircan and Saka[2018], Kyriacou et al. [2020] and Streb et al. [2004] who also only focus on subsamples where cycles are more prominent, in their case, new democracies.

60 See for example Dutta and Roy[2016]; Brown and Martinsson[2017]; Olken[2009]; Cull et al., [2015]; Nguyen[2019]; Kouvavas[2013]

61 <https://anhqle.github.io/interaction-term/#comparison> and <https://stats.stackexchange.com/questions/155895/interaction-effect-in-a-multiple-regression-vs-split-sample#:~:text=Splitting%20the%20sample%20is%20equivalent,slope%20for%20every%20independent%20variable.>

the sample, however, I am not restricting the coefficients on the FEs to be the same (Repetto, 2017).

I limit my sample to MICs, not only because they are understudied, but because in line with Brender and Drazen (2005), Shi and Svensson (2006), Sanford (2021) and Gonzalez (2002), I expect that manipulation is more likely to be distortionary in MICs where spending decisions have a strong effect on survival and re-election probability (Brender and Drazen, 2008). And it is more likely in these contexts that policy choices will depend on patron-client relationships and targeting towards narrow interests (Corstange, 2017, Demarest, 2021).

And despite having a legacy for failed economic infrastructure projects and WE, MICs are where over half of the world's economic infrastructure investments are taking place (Flyvbjerg, 2009, Gupta et al., 2011, Hall and Jones, 1999). And inefficiencies in the provision of this economic infrastructure is widely prevalent because it is believed that the relatively low levels of economic development give incumbents an incentive to manipulate the budget towards economic infrastructure (Hammami et al., 2006, Remmer, 2007). There is also evidence that in these contexts, governments continuously starve and underinvest in social categories and there is a clear bias towards economic infrastructure investment at the expense of social infrastructure investment (IFPRI, 2015, Doner, 2020).

There is therefore ample evidence that MICs are particularly prone to harmful manipulation and even though larger and more significant manipulations have been found in MI non-democracies, most research has focused on developed democracies. MICs also provide the biggest puzzle and are where most of the world's economic 'miracles' and 'disasters' are. These countries are plagued by resource misallocation and there are huge gaps between them and higher and even lower income countries⁶² with

⁶² Low-income countries will also be excluded from my analysis because it is believed that some of the features of low-income countries like low absorptive capacity make it difficult for them to ramp up investment.

regards to the productivity of these investments(Hall and Jones, 1999). Many MICs have inadequate infrastructure with regards to both quality and quantity and even low-income countries have higher returns to economic infrastructure investment than them. As a result, economic development is a mystery in these countries in ‘the dangerous middle’(Chirot, 1978). And very few countries have made the additional leap to high income status and are therefore stuck in the MIT(Gill and Kharas, 2007).

It has therefore been highlighted that the political and economic effects of misallocation are the worst in MICs(Canning and Pedroni, 1999, Hanusch, 2012, Hanusch and Keefer, 2011, Martinez-Bravo and Wantchekon, 2021). This compelling evidence of strong manipulations in MICs, is because certain features of these countries make them more prone to harmful manipulations(Brender and Drazen, 2005, Shi and Svensson, 2002). It is therefore essential to understand the determinants of investment because these politically motivated investments are often at odds with economic development and this overinvestment in WE crowds out socially and economically desirable projects and wastes valuable resources which keeps these countries stuck in the trap (Vergne, 2009, Robinson and Torvik, 2005). Weak institutions and corruption are among the features of MICs that are believed to exacerbate the harmful effect of budget manipulation(Sewell, 1987, Golden and Nazrullaeva, 2023). Because of these features, it is generally believed that narrow targeting via clientelism proliferates.

3.3.3. Dependent variable: Public Investment

Public investment is believed to symbolize the ‘wheels’ if not the engine of economic activity in many MICs(Shonchoy, 2010). As a result it is believed to be driven by the political process and to give a good picture of government activity(Castles, 1994). I focus on public investment because investment in MICs is dominated by the public sector and private investment is less than one tenth of overall infrastructure investment. I focus on Central Government Expenditures[CGE] since this category has the most data, especially for MICs and non-democracies. CGE is ideal for any research that wants to compare between a large sample of countries since all modern governments use the same national

accounting methods to generate their annual CGE data (Blais and Nadeau, 1992, Castles, 1994). This makes it more reliable and comparable across countries than General Government Expenditures which involve several levels of government which may respond differently to political competition.

For measurement, due to a lack of disaggregate data, researchers quantify public infrastructure investment using various proxies. For example, public investment⁶³ or Gross Fixed Capital Formation are often used to measure infrastructure investment due to the availability of data and are often used interchangeably in the empirical literature. However, the problem with relying on these proxies is that sectoral breakdowns are not available, and they often include many items that are typically not infrastructure. This limits the ability of researchers to extract more insights and to understand its dynamics (Bennett, 2023, Foster et al., 2022b). Countries also do not report budget estimates for infrastructure and do not have it as an identified sector. And even if one were to look across multiple line ministries, the definition of infrastructure would differ and it is difficult to disentangle it from operating expenses which makes it particularly problematic when attempting to extract figures for social infrastructure investment (Bennett, 2023). As a result, it has been accepted that investment includes all government spending on these sectors and not just capital expenditures as defined in official statistics. This is what I do and is in line with Jimenez (1995), Nugroho and Suriani (2022) and Nguyen and Bui (2022).

The reason I am interested in sectoral breakdowns is that as I demonstrated in the previous chapter, the composition of infrastructure investment represents several critical trade-offs that clearly reflect political motivations and not necessarily economic and social rationality. I showed in the previous chapter how manipulation is steered towards visible or targetable categories when political competition is high and argued that

⁶³ Public investment includes both direct and indirect social and economic infrastructure with a productive use that extends beyond one year [Prabheesh et al. 2022]

‘visibility’ and ‘targetability’ are not intrinsic traits and are context specific. Therefore, I disaggregate spending and do not focus on fiscal aggregates like most of the literature on budget manipulation does. Looking at the subsectors also helps overcome many measurement issues and is important because as I previously argued, these critical trade-offs within investment decisions can help explain the negative effect of infrastructure on growth. Therefore, by disaggregating, these trade-offs are represented in my main dependent variable. And although studying the structure and composition of budgets has become an increasingly important research topic in the last few years, most comparative analyses of the determinants of public spending still tend to look at different sectors of spending separately without taking account of interdependencies between budget categories. This stands in contrast with the empirical reality of government decision making where policy makers are constantly faced with decisions on how to allocate scarce resources between different budget categories (Garrizmann et al., 2018). Absolute values therefore do not capture how leaders change their policy priorities with political competition. They are also difficult to compare over time and between countries. Therefore, by focusing on spending as a percentage of total expenditures I will be able to demonstrate a shift in government preferences and priorities in line with what is more ‘visible’ and ‘targetable’ in different contexts.

Transport and communication and defence expenditure are often used as proxies for economic infrastructure spending and this is what I do in my empirical chapters (Devarajan et al., 1996, Vergne, 2009). I also focus on these categories separately, because there are some arguments that defence expenditure is not always the best proxy for economic infrastructure (Ugurlu and Balas, 2025, Taylor, 2024). Social infrastructure investments include health, education, and social protection⁶⁴. And I also look at social protection as a percentage of overall spending on its own as it is often used as a proxy for redistributive policies.

⁶⁴ This is in line with recent research and is justified by Feng and Wu [2018]

3.3.3.1. Measurement

I use the ‘Statistics on Public Expenditure for Economic Development’ [SPEED] dataset for data on public investment. The dataset is developed and maintained by the International Food Policy Research Institute [IFPRI]. It uses multiple sources, including the IMF, the WB, and national governments, and conducts extensive data checks and adjustments to ensure consistent spending measurements over time that are free of exchange-rate fluctuations and currency denomination changes. This means that the dataset offers an extensive coverage of public expenditure across various sectors and levels of government. It includes expenditures related to education, healthcare, infrastructure, social services, and other critical areas of spending that I am interested in. The SPEED dataset is ideal because it is focused primarily on the areas that are most important to MICs and places a large emphasis on productive-economic infrastructure-sectors like infrastructure, as well as social infrastructure sectors that contribute to the well-being of the population [such as health, education, and social protection]. By leveraging such a comprehensive dataset, my dissertation can provide a nuanced understanding of government spending patterns and priorities across different sectors. The longitudinal nature of the dataset also allows for the analysis of trends over time, which enhances the depth and richness of the analysis, enabling me to uncover patterns and insights that may not be apparent from cross-sectional data alone. And by examining data across multiple years my dissertation can explore temporal dynamics and trends that shape government spending decisions. The SPEED dataset is widely recognized for its high quality and reliability within academia and its rigorous data validation processes, robust documentation, and its quality assurance protocols are believed to ensure the accuracy and consistency of the data.

The SPEED dataset presents total government expenditure and its functional breakdown of eight sectors, five of which are the most relevant to my analysis: transportation and communication, education, health, social protection, and defence. The functional breakdown is done according to the United Nations Classification of the Functions of

Government [COFOG], outlined in the Government Finance Statistics Manual 2001 by the IMF.

3.3.4. Independent variable: Political Competition

As I highlight in the previous chapter, most research has focused on the ability of incumbents to manipulate the budget and has ignored motives, especially beyond elections. This is despite the fact that the theories I reviewed in Chapter 2 suggest that political competition forces leaders in all regime types to behave ‘as if’ their main goal is to gain and stay in office. One of the ways this can be done is through budget manipulation towards sectors that are visible and/or targetable to key groups. However, as I demonstrated in the previous chapter both theoretical and empirical work on the effect of political competition on the provision of investment is scarce, scattered, and inconclusive.

Since I am interested in measuring a politicians perceived [in]security in office, which will shape their responsiveness in the form of budget manipulation, political competition is an ideal independent variable. To capture this perceived [in]security, I vary the level of political competition. In this chapter I argue that political competition affects economic growth via the manipulation of public investment⁶⁵ and that the category that increases with political competition will be deemed more targetable.

3.3.4.1. Measurement

The Political Competition [POLCOMP]⁶⁶ variable ranges from 1 to 10, with low and high values indicating low and high political competition respectively. The fact that political competition is measured as a continuum provides a finer level of discrimination which allows for a more nuanced analysis of how politics affect spending (Pinto and Timmons, 2005). For example, a totalitarian country with no limit to repression will have a score of

⁶⁵ This has been posited in other studies like Maher and Zhao[2022] and Haan and Sturm[1997]

⁶⁶ I have dealt with missing and extreme values by linear interpolation. The Polity V index codes regimes transitions with -88, foreign interruption with -66 and periods of anarchy with -77. In this case, I follow the suggestions given in the Polity V user's manual and treat - 66 as "system missing", -77 are converted to a polity score of 0 and cases of transition- 88 are pro-rated across the span of the transition.

1, while a score of 6 will describe a country with some repression but also some factional competition even if there are no free elections⁶⁷(Marshall et al., 2011). The variable measures the extent to which alternative preferences for leadership roles can be pursued in the political arena. This makes it a measure of overall political competition, which according to Man (2016a) means it has the most significant effect on spending. I am not aware of any better political competition measure that would be available for such a large number of countries and years.

The variable accounts for restrictions on political competition and captures its ‘quality’ (Prichard, 2016). Critically, since my dataset contains non-democracies, it can account for changes in the level of political competition both when competition is about entry into a more or less elected elite and when it is through organized elections. This allows me to distinguish between power struggles that in principle can be lost, from those that are merely a façade. The variable does not presume that democratic structures are in place and is therefore ideal to reflect the level of political competition in non-democracies(Hyde and Marinov, 2012). Therefore, using this variable allows me to provide a novel and more nuanced approach to understanding budget manipulation in different types of regimes.

The variable is a composite measure comprised of both PARCOMP [competitiveness of participation] and PARREG [regulation of participation]. Both indicators together mean that POLCOMP measures the extent to which alternative preferences for leadership can be pursued in the political arena and the extent to which there are binding rules on when, whether and how political preferences are expressed.

⁶⁷ For example, some East Asian dictatorships scored a 2 or 3 on political competition during nondemocratic periods. This is like the scores of some Latin American countries during their early democratic periods. This may be because some of the East Asian dictatorships allowed some political participation, notably by business organizations, whereas some newly democratic Latin American countries had very restricted political participation. At the same time most African dictatorships, in contrast, scored 1, reflecting the fact that political participation was monopolized by a narrow circle of politicians.

3.3.4.2. *Component variables*

1.1.1.1.3 PARCOMP

PARCOMP measures the competitiveness of participation and the extent that non-elites can access institutional structures for political power. The greater the extent of the franchise and the more that alternative preferences for leadership can be pursued in the political arena, the higher the PARCOMP score. A high score in general is believed to reflect high tolerance for deliberation; which is believed to be a key indicator of high political competition (Chandra and Rudra, 2013). It is critical in measuring the insecurity of the incumbent since it also measures the ‘potential’ for contestation.

1.1.1.1.4 PARREG

PARREG focuses on the existence of rules that may limit the exercise of expressing alternative political preferences. Specifically, it measures the extent to which there are binding rules on when, whether and how political preferences are expressed.

By including both PARCOMP and PARREG, POLCOMP captures both the nature of political competition and the level of its regulation. Therefore, the variable accounts for restrictions on political competition more broadly and captures the ‘quality’ of competition or elections as reflected by the absence of inequality and malfeasance (Prichard, 2016). It also measures competition regardless of the extent of electoral participation, making it ideal for panel data analysis that includes cases without elections.

3.3.4.3. *Why ideal*

POLCOMP from Polity V is believed to be an ideal measure for my research since it focuses on competition for executive power, whether elections are important or not (Vanhanen, 2000). This makes it a critical determinant of ‘insecurity’ of both democratic and non-democratic incumbents. It also focuses on competition between regime authorities and non-state actors, both during elections and during periods of popular mobilization or protests. The variable also captures the extent to which the

political system enables elites and non-elites to influence the decisions of the executive (Shmuel, 2020). As a result, it is believed to capture both institutionalized and ‘uninstitutionalized’ competition. The variable has also been deemed ideal for panel datasets due to its large coverage (Aidt and Eterovic, 2011).

Political competition as measured by the Polity dataset, differs from measures of democracy⁶⁸. This makes it particularly relevant to my theoretical argument since it combines de jure and de facto restrictions on competition and measures outcomes [like political violence for example] and not just institutions. And according to Chandra and Rudra (2013) and Manzur (2022) it is more relevant to budget manipulation than democracy or elections. According to Boese (2019), POLCOMP evaluates the extent to which political activity by potential opposition⁶⁹ is possible and regulated⁷⁰. In his view, it is a more accurate measure of political contestation than democracy ‘even if one embraces the minimalist democracy definition with contestation and participation.’ Therefore, instead of merely capturing whether a country is a democracy or not, the measure captures changes in authority characteristics⁷¹ and takes into account constraints on autocratic leaders and heterogeneity within regime types (Besley and Kudamatsu, 2006). For example, even though India in the 1960’s and Venezuela in the 1970’s both scored 9 out of 10 for democracy⁷², they scored 2 and 5, respectively for political competition⁷³. This shows how some processes are inclusive and others are exclusive (Manzur, 2022). As such, the variable operationalizes how much ‘voice’ or ‘power’ is afforded to alternative groups. According to, Ishihara and Singh (2016), the ordered values of the variable are believed to accurately describe the leverage that the

68 For example, political competition has an opposite effect to democracy on procyclicality and government crises in research by Gadenne et al. [2014] and Agnello et al. [2017] respectively.

69 It also considers opposition from several sources like elites, political parties, or interest groups etc.

70 Regulation is not necessarily an indicator of regime type, but instead shows whether the recruitment process is ordered and predictable. For example, both the United Kingdom and Qatar have similar scores with regards to regulation and ‘unregulated’, ‘multiple identity’, and ‘regulated’ systems are not indicative of democracy or autocracy

71 For example, even though the US has been a democracy since it’s foundation it has had substantial variations in the degree of political competition [Besley, 2010]

72 Democracies vary in their ability to foster political competition, which may explain why some democratic regimes succeed in promoting economic development while others do not [Girma and Shortland, 2008; Mulligan and Tsui, 2003].

73 Another example is Argentina and Greece in 1985. And although Lebanon was classified as a democracy and Qatar an autocracy, Qatar scored higher than Lebanon with regards to Political Competition.

opposition has against the incumbent, which makes it a good measure of their insecurity. It measures the availability of channels for competition and participation, which are key to insulating the political system from domination by the incumbent; because if these channels exist, the incumbent will naturally feel less secure(Boix et al., 2003). As a whole it measures the threat an incumbent face from potential challengers.

It is also an ideal measure since it is believed that most political competition takes place outside⁷⁴ the context of impending elections(Eibl and Lyng-Mangueira, 2016, Hansen et al., 2015). And the effect of political competition on spending, especially on economic infrastructure, is not believed to be linked to electoral ‘cycles’ in MICs(Dash et al., 2019). And although some research on budget manipulation uses outcome based measures such as vote margin or ‘length of time a party has been in office’; these measures also presume that some democratic structures are in place which means they may not accurately reflect the level of political competition in non-democracies(Hyde and Marinov, 2012). And the efforts of opposition parties are difficult to measure unless they perform well in an election and therefore using the win margin may not actually reflect political competition(Lee, 2022).

In contrast to most other measures of political competition, it is available for both democracies and non-democracies. So, although the variable was previously criticized for being somewhat subjective and not capturing constitutional constraints coming from electoral rules⁷⁵ for example, I am not aware of any better measure of political competition that is available for different regime types for as many years.

As a result, several studies⁷⁶ have used the POLCOMP subcomponent from Polity to examine the effect of politics on the economy. This is especially the case, when testing

74 For example, opposition parties can be banned shortly before elections or be subject to political harassment that cripples their chances for electoral success.

75 See Glaeser et al. [2004]

76 Like Lahtinen and Taavitsainen[2018]; Asongu and Odhiambo[2015]; Turchin et al. [2011]; Eibl and Lyng-Manguira[2017]; Tell and Hansen[2011]; Acemoglu and Robinson[2003] and Yang et al. [2023]

these effects in non-democracies, hybrid regimes and MICs(Wong, 2017, Smith, 2014, Man, 2016b, Gilbert and Mohseni, 2011, Robertson and Teitelbaum, 2011). And according to Shmuel (2020) and Manzur (2022), POLCOMP from the Polity dataset is the most dominant determinant of budget manipulations, especially in non-democracies⁷⁷.

3.4. Model

I test my hypotheses on cross-country panel data from 62 MICs, with low rule of law, executive constraints, and high corruption from 1990 to 2016 by regressing different categories of public expenditures as a percentage of total spending on political competition. The cases were chosen according to data availability. For all variables and data sources see ‘Variables and Labels’ in the Appendix. Panel data allows me to control for both time-invariant and time-varying characteristics of individual units in the dataset, providing more robust estimates of the coefficients. Having multiple observations for each country allows me to consider dynamic and country-specific fixed effects.

$$\text{Category of Spending as \% of Total Spending} = \alpha + \beta_1 \text{PolComp}_{\tau-1} + FE + \mu\tau$$

I chose the model based on theory, prior research, and the structure of the data. Following common practice and standard models in recent empirical research, I employed panel data analysis to examine the relationship between political competition and public investment over time while accounting for country and year-specific effects. Specifically, I utilized the "plm" package in R to estimate the panel data regression.

A key distinction in my approach is that I do not use a binary election-year dummy variable in my models. Since my central argument is about structural political insecurity and not short-term electoral incentives, this choice is both conceptually and empirically driven. As I highlight above, in MICs elections-if they take place at all- are mostly irregular, uncompetitive or even non-binding; I therefore choose to conceptualize

⁷⁷ despite this they do not use it as their main independent variable

political insecurity more broadly and argue that political competition comes in a wide-range of forms, that are often completely unrelated to electoral cycles. I also highlight above that the literature has found that most manipulation actually takes place between cycles. The PBC literature has also concluded that election-year effects vary dramatically based on contextual factors⁷⁸ and the inconclusive results of these studies reinforce the need to model competition structurally and not cyclically. My sample of countries is also full of countries that lack clean electoral data or have low-frequency or manipulated elections; therefore, including an election dummy would limit the sample, introduce measurement inconsistency and potentially bias results towards electoral regimes, contradicting the purpose of my design. Finally, including both political competition and an election dummy would introduce redundancy and multicollinearity⁷⁹, because both intend to proxy political risk. In conclusion, I believe that including election year dummies in my sample can become empirically noisy and conceptually misleading, because they over-state the disciplining effect of elections. It could also lead to misspecification of the causal process and obscure the structural drivers of misallocation that I focus on⁸⁰. Empirically it is also challenging to include this dummy since election year data is not consistently available for all countries and years in the sample and even when available the definition of what constitutes a politically meaningful election varies widely, reducing comparability.

A Fixed Effects[FE] model with Panel Corrected Standard Errors [PCSEs]and a lagged dependent variable has proven very popular and has become a standard modeling practice for panel data in political economy. Unit dummies absorb cross-sectional

⁷⁸ See Gonzalez[2002] and Shi and Svensson[2006].

⁷⁹ I believe that including an election dummy variable might mask the more enduring effects of structural insecurity and conflate electoral timing with broader political incentives-which my theory explicitly separates.

⁸⁰ Brender and Drazen[2008] find that in contexts with low accountability, which are my focus, elections do not significantly alter fiscal behaviour, further justifying the exclusion of an election dummy.

⁸¹ The Panel Corrected Standard Errors [PCSE] method adjusts the standard errors to account for the panel structure of the data and to control for serial correlation, enhancing the reliability of the statistical inference and the use of these error correction models is commonly justified on technical grounds.

variation and the lagged dependent variable absorbs time-series variance(Plumper et al., 2005). Therefore, the inclusion of the lagged dependent variable, the time and country dummies, and PCSE deal with autocorrelation, heteroscedasticity, contemporaneous correlation of errors and autocorrelation and heteroscedasticity of errors at the same time(Plumper et al., 2005, Castro and Martins, 2018). The lagged variable is essential in research dealing with budgets since budgets tend to increase incrementally and are made with reference to the budget of the previous year and there are therefore substantive reasons for persistence(Kittel and Obinger, 2002, Niskanen, 1971). As a result it has become standard practice to use a lagged dependent variable with country and year dummies and PCSE in panel data for spending to control for and reduce the possibility of reverse causality and to account for temporal-within unit dependencies (Lee, 2022).

For my baseline model, as suggested by Beck and Katz (1995), I estimate the model with a FE estimator allowing for panel-specific standard errors and correlations between panel units(Eterovic and Eterovic, 2010, Lipsmeyer and Zhu, 2011, Getmansky and Zeitoff, 2014, Plümper and Troeger, 2018, Busemeyer and Seitzl, 2018). The FE₈₂ model was employed as the baseline model instead of the Random effects[RE] model based on the Hausman test₈₃. Also, using the "within" variation to identify the impact of political competition on fiscal choices -within a given country- over time reduces the risk of omitted variables bias.

Several control variables discussed in the literature were tested for statistical significance in my baseline model, including growth, revenues, GDP per capita, population density and inequality. However, while these variables may have empirical relevance they could not be identified as significant determinants of spending₈₄ and therefore in my baseline model I control for fixed effects, the lag of the dependent variable and GDP per capita.

82 FE models assume that differences between cross-sections can be accommodated from different intercepts using the dummy variable technique.

83 The Hausman test compares the results of using fixed effects or random effects estimators leads to mixed results. In most estimates, the null hypothesis that the RE estimator is valid is rejected; however, in a few it is not. To follow a uniform criterion, I always use the FE estimator, but I also report the findings of the RE estimator.

84 I begin my regressions with only including the lagged dependent variable and fixed effects as controls and then I added growth, population density, revenues and GINI finding that they are statistically insignificant, and their inclusion has little effect on the coefficient for political competition. See section 7.2 in the appendix.

The model includes country and year fixed effects to rule out that the inference regarding the parameters of interest is contaminated by unobserved determinants of fiscal choices that are constant over time -country fixed effects- or affect all countries at a given point in time in the same way -year fixed effects-. Therefore by using fixed effects, I control for all stable characteristics of the entities and capture cross-sectional institutional variation and therefore adding further control variables will “throw out the baby with the bath water”(Kittel and Winner, 2003, Plumper et al., 2005). And the country fixed effects should sufficiently account for and adjust the unobserved characteristics and confounders that affect an incumbent’s tendency to change their expenditure composition(Brender and Drazen, 2013 , Lee, 2022, Achen, 2005, Wooldridge, 2010). Moreover, by separating groups and running distinct regressions, the study inherently controls for many variables that would traditionally be included as controls. This strategic model specification reduces the risk of overfitting and multicollinearity, ensuring that the focus remains on the core relationship of interest. I also include the results of my model with no controls in line with Uribe (2013) and Bracco et al. (2018).

This dissertation employs three primary model specifications: fixed effects (FE), random effects (RE), and pooled ordinary least squares (OLS). The FE model is the baseline due to its ability to control for all time-invariant country-specific heterogeneity, thereby isolating the within-country effect of political competition on spending composition. The RE model is included to retain both within- and between-country variation, which provides additional insights into broader cross-national dynamics and structural fiscal patterns. Pooled OLS is incorporated as a transparency measure and benchmark model, offering an initial view of the unconditional relationships in the data. Together, these specifications serve to triangulate findings and assess the robustness of the results under different assumptions about data structure and endogeneity.

This is in line with several studies dealing with similar topics and models⁸⁵ and therefore the results of these models are not merely robustness tests. I include results of the pooled OLS regression because in the presence of long time series, the Nickel Bias and Beck and Katz (2011) show that other estimators can perform worse⁸⁶. It has also been argued that when the sample is split, within group variation becomes limited, which reduces the suitability of FE. As a result, most of the literature uses pooled OLS (Rolph, 2017). This is in line with (Stasavage, 2005), Abou-Chadi and Immergut (2019), Nguyen and Tran (2023), Drazen and Eslava (2010), Janku and Libich (2019), Busemeyer and Garritzmann (2019) and others⁸⁷. These authors argue that the OLS estimate provides greater statistical power and more stable estimates, especially in smaller sub-groups.

I also include results of the RE estimator since, according to Bell et al. (2018) and Rolph (2017) it should be used in all multilevel analyses, at least as a starting point, because it allows for important extensions. This means that RE can give a better understanding of the correlation between political competition and spending within countries and years. For this reason, RE has gained increasing prominence in political science and political economy research (Beck, 2001). Beck and Katz (2007) show that for panel data, RE models perform well even if normality assumptions are violated. Studies that use RE estimators argue that FE⁸⁸ models cut out too much of what is going on and can therefore lead to misleading interpretations and impoverished results. And it has been deemed 'almost always preferable to the FE model since the latter is inappropriate if unexplainable heterogeneity remains in the true effect size', according to Philips (2016), this is the case in nearly all social science research (Stanley and Doucouliagos, 2012). Therefore, it has been posited that RE models offer a compromise between FE models and fully pooled models and that their efficiency gains outweigh any biases (Clark and Linzer, 2015). As a result, RE have been used as an estimator in studies that deal with political effects on

85 Including Klein and Sakurai [2015]; Lyngø and Eibl [2017]; Wiguna and Khoirunrofik [2021]

86 Brender and Drazen [2004] argue that since T is more than half a dozen, Pooled OLS is a valid procedure

87 See for example Brender and Drazen [2004]; Klomp and de Haan [2013]; Bracco et al. [2017]; Foremny et al. [2014]; Uribe and Pilar [2013]; Müller [2019]; Wenzelburger et al. [2020]

88 It is argued that time-invariant processes can have effects on time-variant variables, which are lost in FE models

government expenditures like Crombach and Bohn (2022), Busemeyer and Garritzmann (2019), Bueno (2021) and Duerrenberger and Warning (2018). The results of the RE estimator also allows the analysis to extend beyond the sampled countries; especially since many important structural factors don't vary much over time but differ across countries.

In the appendix, I also present the results of my estimation that excludes a lagged dependent variable, this is in line with Jacques and Ferland (2021) and Kittel and Winner (2003). Huber and Stephens (2001) argue that the lagged dependent variable can suppress the power of the other independent variables. Beck and Katz (2007) also argue that correcting for autocorrelation already deals with the problem of serial correlation without suppressing this power. And particularly with regards to OLS models, Baltagi (2013) and Bermpei et al. (2018) argue that the inclusion of the lagged dependent variable will mislead the estimates due to the correlation between the lagged dependent variable and the error term.

3.5. Summary Statistics

My dataset consists of 62 MICs, with 27 years of observations for each country. These countries are divided into 8 regions and regime types and 2 income level classifications. Below I provide some descriptive statistics of the dataset. For a full list of countries and more information see Appendix.

Figure 3-1 Political Competition by Income Classification

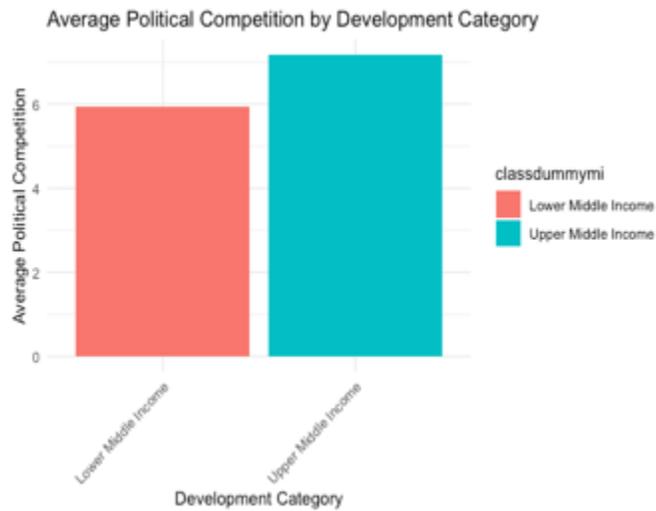


Table 3-1 Average Political Competition According to Regime Type and Income Classification

Regime Type	Mean Political Competition
<i>Presidential Democracy</i>	8.27
<i>Mixed Democracy</i>	8.18
<i>Parliamentary Democracy</i>	7.27
<i>Civilian Dictatorship</i>	5.42
<i>Royal Dictatorship</i>	4.75
<i>Military Dictatorship</i>	3.53
Classification	Mean Political Competition
<i>Upper Middle Income</i>	7.17
<i>Lower Middle Income</i>	5.95

Figure 3-2 Political Competition by Regime Type

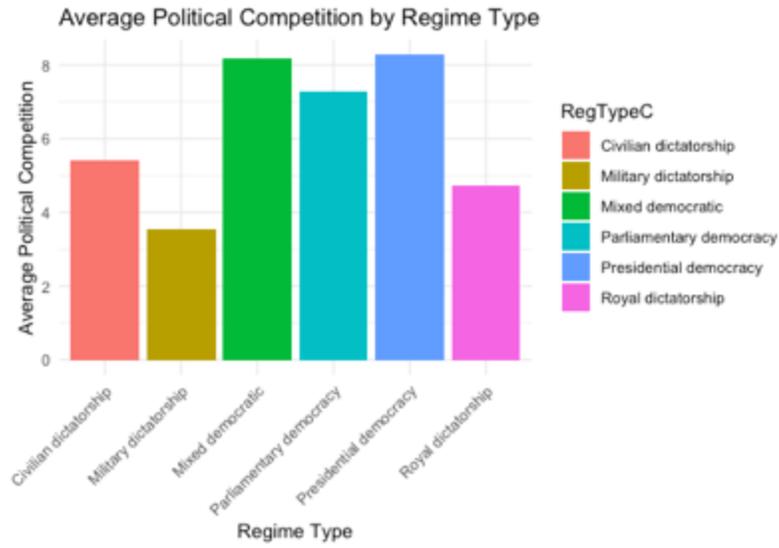


Table 3-2 Count for each income category

Lower Middle 729

Income

Upper Middle 793

Income

Figure 3-3 Regime Types among MICs

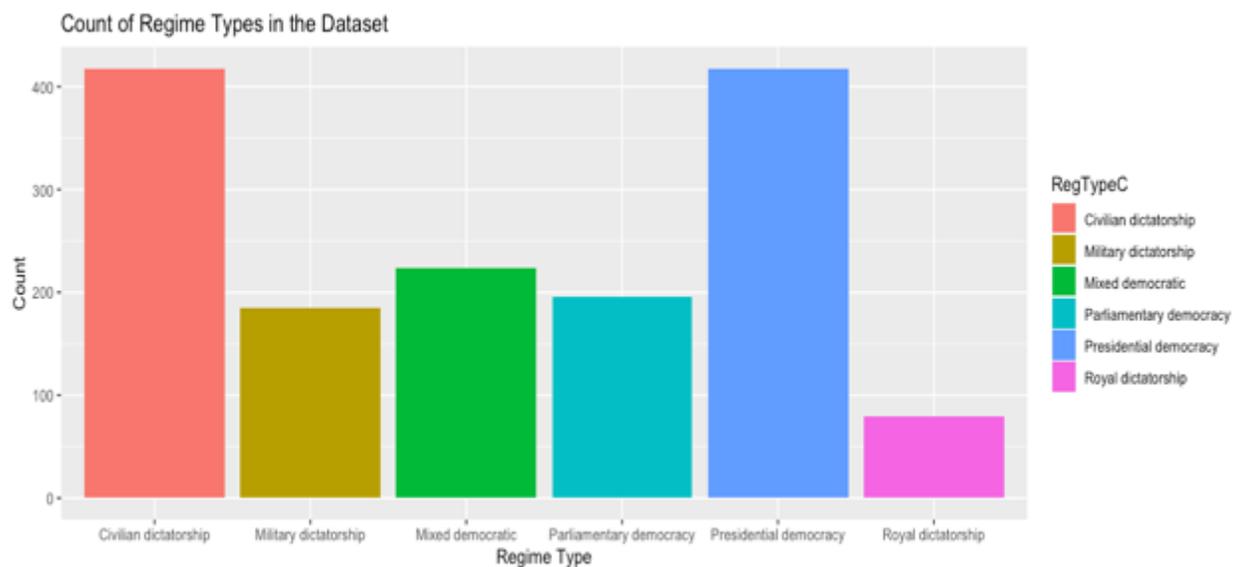


Table 3-3 Number of cases for each regime type

<i>Regime Type</i>	<i>Low Middle Income</i>	<i>Upper Middle Income</i>
<i>Civilian dictatorship</i>	178	262
<i>Military dictatorship</i>	119	66
<i>Mixed democratic</i>	103	120
<i>Parliamentary democracy</i>	150	133
<i>Presidential democracy</i>	153	269
<i>Royal dictatorship</i>	52	48

3.6. Results

3.6.1. Rule of Law

ruleoflaw_SGI	Rule of Law [Sustainable Governance Index]	To what extent are public officeholders prevented from abusing their position for private interests? Higher values mean better rule of law
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According to the SGI and the WBWGI, Rule of Law is a good indicator of the quality of government. And it has been suggested that higher scores for rule of law reduce evidence of harmful budget manipulation towards narrow interests (Klomp and Haan, 2016, Keefer, 2009). It measures the extent to which an incumbent is prevented from abusing their position for private interests (Luhmann et al., 2020), and how rigorously rules punish and prevent corrupt, clientelist behavior and narrow targeting (Lokshin et al., 2023). Countries with low rule of law, generally allow more narrow targeting and discretion (Elbahnasawy and Revier, 2012). This makes it a good proxy for horizontal accountability⁸⁹ and the abuse of state resources by incumbents. Rule of law as measured by the SGI is the most used measure in similar studies.

Although I include figures comparing contexts with low levels of accountability to those with high levels of accountability; I focus my regression analysis to those with low levels of these variables⁹⁰. This is due to both theoretical and empirical reasons. Theoretically, since my main aim is to focus on contexts where low accountability is more likely to distort the effect politics has on spending; when accountability is high I expect the mechanisms I describe not to operate. Including them in my main regression results may dilute the interpretation of coefficients by pulling in cases where my theory predicts no effect. I therefore include the results of these regressions in my Appendix only (See

⁸⁹ According to Dewatripont and Seabright [2010] wasteful projects arise due to weak horizontal accountability mechanisms that allow capture of the political governance process by narrow interests

⁹⁰ I include the rest in the Appendix section 7.4

section 7.4). Also, empirically the number of MICs with sustained high values of variables like schooling, transparency etc. across time is extremely limited. Therefore, the results of these regressions are likely to be statistically noisy and non-comparable due to reduced degrees of freedom. Any differences could reflect sample size artifacts and not real variation in mechanisms⁹¹.

⁹¹ In small sub-groups standard errors become inflated making it difficult to draw meaningful inferences. Presenting such results in main tables could mislead the reader into over-interpreting weak or statistically meaningless variation.

Table 3-4 Regression Results: Effect of Political Competition on Spending in Countries with Low Rule of Law

DV: Investment % in this category	FE	RE	OLS [Pooled]
Social Infrastructure	-0.108*** [0.011]	0.070 [0.103]	-0.104* [0.062]
Education	-0.109** [0.053]	-0.090*** [0.012]	-0.071** [0.036]
Health	0.042 [0.079]	0.012 [0.011]	-0.048 [0.048]
Social Protection	-0.023 [0.031]	-0.066*** [0.017]	-0.022 [0.020]
Transport and Communication	0.059 [0.201]	0.157*** [0.011]	0.070 [0.220]
Defence	0.116 [0.091]	0.136** [0.011]	0.175*** [0.058]
Controls	Y	Y	Y Extensive ⁹²
Fixed Effects	Y	N	N
Lag Dependent Variable	Y	Y	Y
Observations	921	1,065	1,042

. p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001
All models with PCSE
Robust standard errors in parentheses

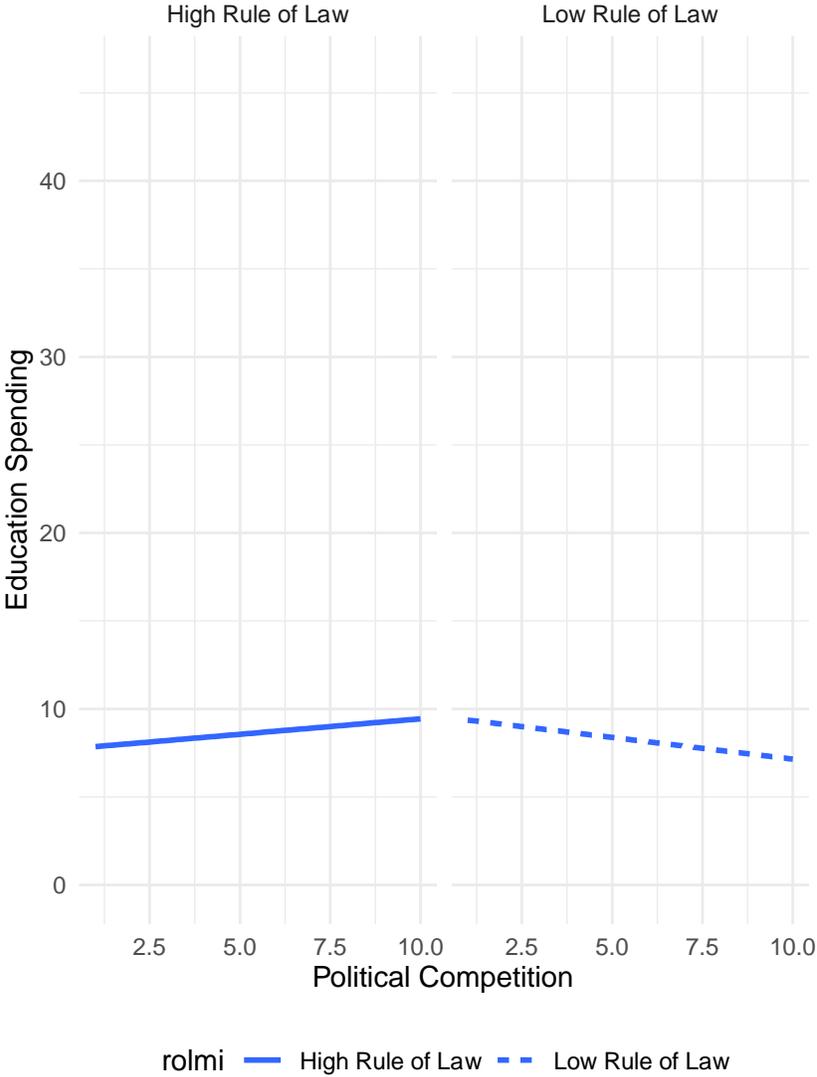
⁹² This model controls for GDP per capita, growth, revenues, population density and inequality

According to the Hausman test and in line with prior research my main findings are based on the baseline FE model that controls for GDP per capita. However, as I argue above including results from RE and Pooled models is also important. When rule of law is low⁹³, and incumbents theoretically have more discretion to narrowly target spending[see table 3-4], I find that social infrastructure and education[see figure 3-4] significantly decrease. Social protection also decreases, whereas transport and communication and defence[which can be targeted to the military- a key group in many of these contexts] increase. We can also see from figure 3-4, that the decrease of education with political competition in contexts with low rule of law, is the opposite of what takes place in countries with high rule of law.

This is more or less in line with theoretical expectations, but the fact that social protection decreases suggests that even though it has theoretically been argued that social protection and transfers are targetable, incumbents with more discretion would rather manipulate spending towards economic infrastructure categories that are more targetable to elites and where there are more opportunities for rent seeking. One interesting finding is that health spending also increases when rule of law is low, albeit not significantly. I discuss this finding in the discussion section below.

93 The separation of the countries into low and high countries has been done using the median value, thus the separation is imperfect and there are probably some countries in the middle misclassified.

Figure 3-4 The Effect of Political Competition on Education Spending Across Rule of Law



3.6.2. Executive Constraints

xConst	Executive Constraints [Polity V]	The variable 'refers to the extent of institutionalized constraints on the decision-making powers of chief executives'(Marshall et al., 2011). It therefore captures the degree to which incumbents are constrained in their ability to manipulate the budget. Each country is coded on a seven-point continuum, ranging from [1] unlimited authority to [7] executive parity and subordination.
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Table 3-5 Regression Results: Effect of Political Competition on Investment in MIC with Low Executive Constraints

DV: Investment % in this category	FE	RE	OLS [Pooled]
Social Infrastructure	-0.172 [0.187]	-0.029 [0.018]	-0.054 [0.111]
Education	-0.017 [0.104]	0.180*** [0.021]	0.211*** [0.076]
Health	0.069 [0.143]	-0.032 [0.020]	-0.075 [0.084]
Social Protection	-0.095 [0.070]	-0.089*** [0.021]	-0.076* [0.042]
Transport and Communication	0.094 [0.367]	0.172 [0.018]	0.032 [0.205]
Defence	0.311** [0.156]	0.527*** [0.027]	0.426*** [0.103]
Controls	Y	Y	Y Extensive
Fixed Effects	Y	N	N
Lag Dependent Variable	Y	Y	Y
Observations	433	443	460

. p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001
All models with PCSE
Robust standard errors in parentheses

A high level of executive constraints is believed to reduce an incumbents ability to manipulate the budget for political support(Shmuel, 2020). It is therefore generally believed that targeting will be more harmful when high political competition is combined with low executive constraints. Streb et al. (2009) find that only when executive constraints are low will an incumbent be able to manipulate the budget and according to them, that is why manipulation is more harmful in MICs. This has also been found by Klomp and Haan (2016) and Persson and Tabellini (2002), who argue that when executive constraints are high, the incumbent has lower discretion over spending and there are more veto players. Therefore, the concept of executive constraints is believed to capture the constraining institutional effects that are discussed in PBC literature, making it help determine whether the incumbent can inefficiently target spending to favoured groups(Eibl and Lynge-Mangueira, 2016). This aspect of budget manipulation has generally been overlooked in the empirical literature.

Based on the results presented in Table 3-5, I find that in contexts with low executive constraints, where the incumbent should theoretically have more discretion to narrowly target their spending, defence*, transport and communication and health increase; while social infrastructure, education and social protection decrease. This is in line with contexts with low rule of law and supports arguments that incumbents have limited discretion over education spending(Stučka, 2024). Figures 3-5 and 3-6 also show how political competition affects education and transport communication spending in different ways according to whether executive constraints are high or low.

Figure 3-5 The Effect of Political Competition on Transport and Communication Across Executive Constraints

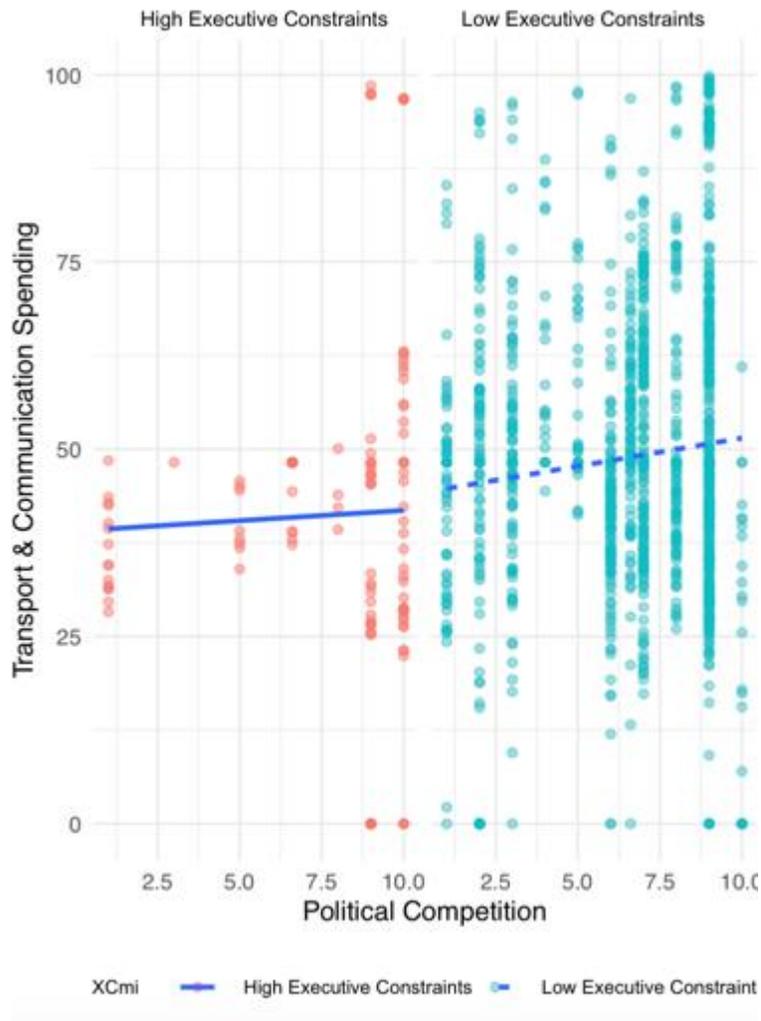
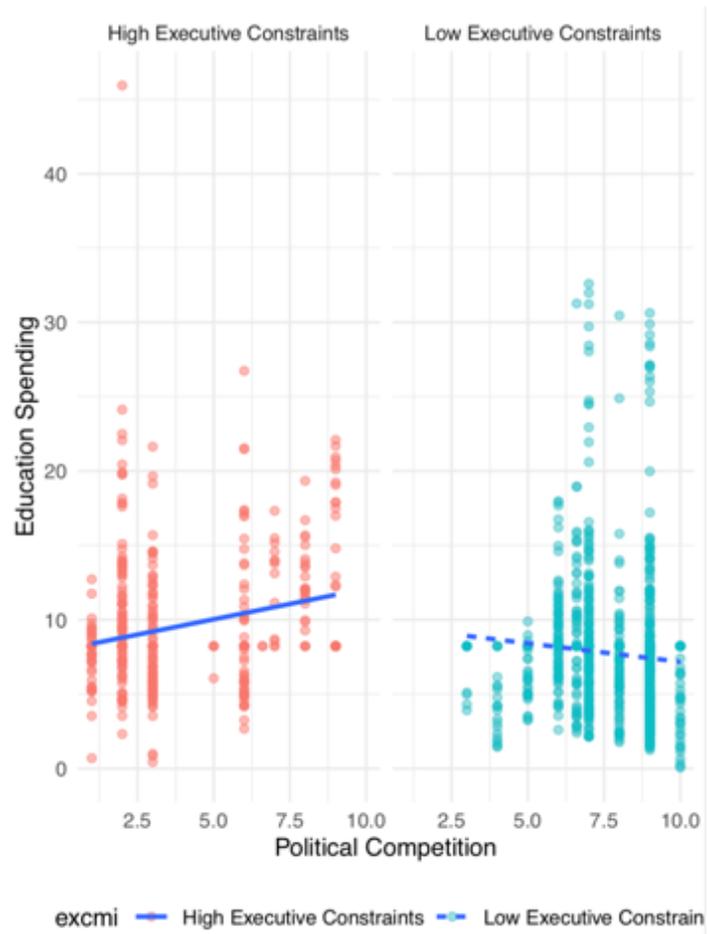


Figure 3-6 The Effect of Political Competition on Education Across Executive Constraints



3.6.4. Corruption

bci_bci	Degree of corruption [The Bayesian Corruption Indicator]	The BCI index values lie between 0 and 100, with an increase in the index corresponding to a raise in the level of corruption.
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Institutional quality in general is often measured by levels of corruption which can alter the composition of government spending towards rent-seeking and narrow targeting via clientelism to the detriment of economic growth (Ilzetzki et al., 2013, Mauro, 1997, Rose-Ackerman, 2004, Odo, 2015, Bernhard et al., 2019). And it is generally believed that when corruption is low, political competition may result in less harmful manipulation and more efficient investment allocation (Laffont and N'Guessan, 2000, Martinez-Bravo and Wantchekon, 2021, Acemoglu and Dell, 2010). Corruption has also sometimes been used as a proxy for the extent to which people perceive the government to be transparent and a politicians rents of being in power (Keefer et al., 2020, Shi and Svensson, 2006). Gottlieb and Kosec (2018) use it as a proxy for the extent to which electoral incentives are perceived to discipline politician behavior. This is because theoretically, it is believed that higher levels of corruption can result in elite capture which can lead to the initiation of unproductive economic infrastructure projects that are targeted towards a narrow elite (Tanzi and Davoodi, 1998, Venables and Harding, 2013, Vukovic, 2019, Bobonis et al., 2024). Therefore it is reasonable to believe that high corruption could lead to wasteful infrastructure because corruption results in a lack of accountability that leads to the provision of low quality infrastructure and manipulation (Davoodi et al., 2010). And today it is accepted that corruption is one of the main factors behind the inefficient allocation of economic infrastructure investment towards WE (Al-Ississ and Atallah, 2015).

Figure 3-7 Effect of Political Competition on Transport & Communication Across Corruption

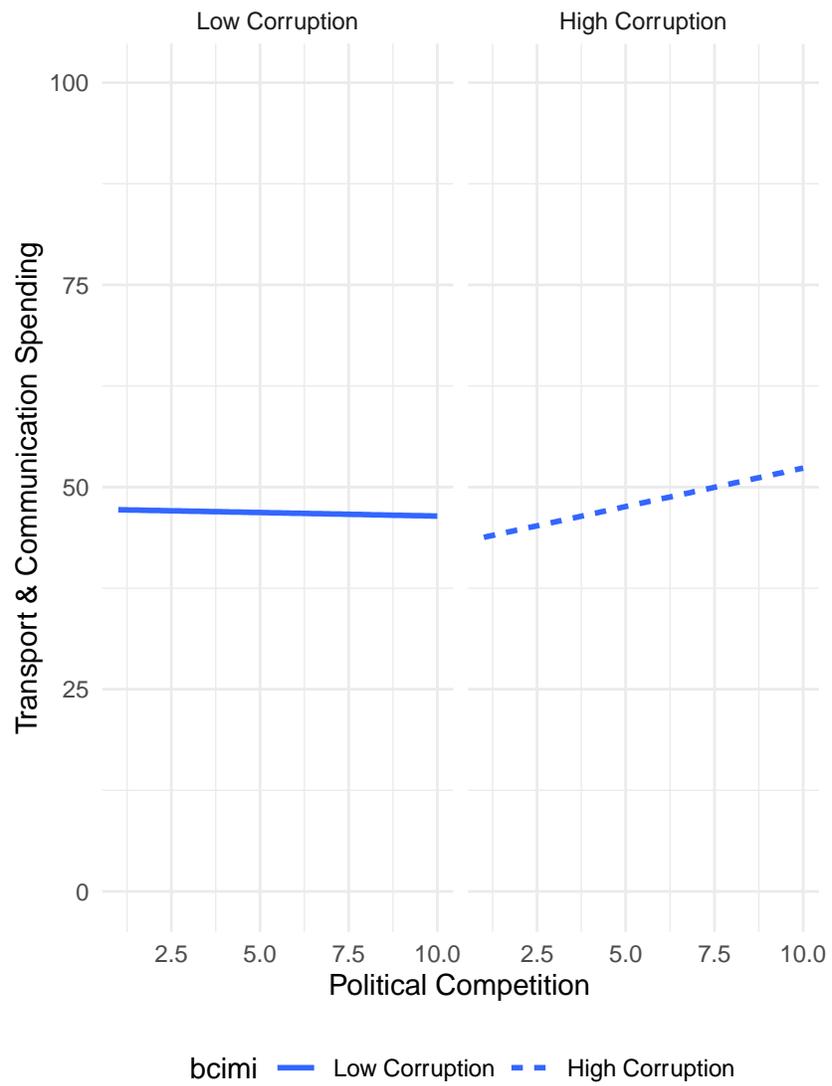


Figure 3-8 Effect of Political Competition on Social Infrastructure Across Corruption

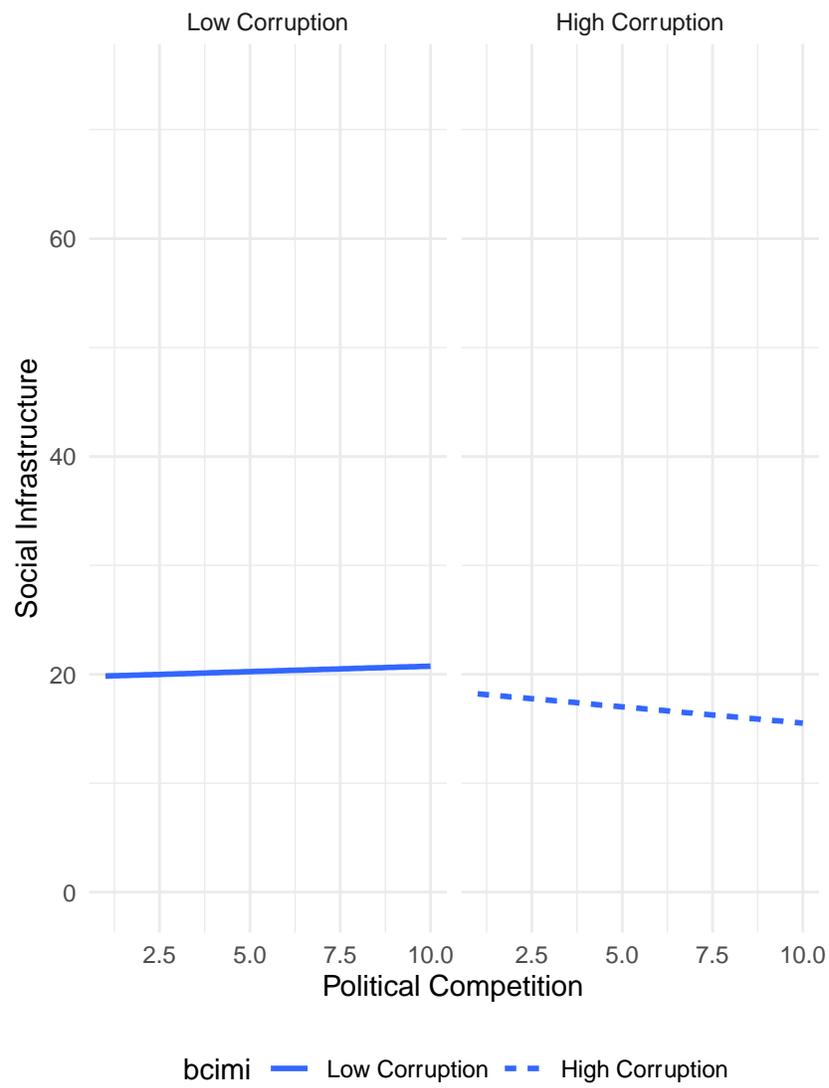


Table 3-6 Regression Results: Effect of Political Competition on Investment in MIC with High Corruption

DV: Investment % in this category	FE	RE	OLS [Pooled]
Social Infrastructure	-0.039* [0.113]	-0.132*** [0.011]	-0.117* [0.068]
Education	0.067 [0.058]	-0.096*** [0.013]	-0.073* [0.041]
Health	-0.058 [0.088]	0.009 [0.012]	-0.056 [0.053]
Social Protection	0.009 [0.037]	-0.047*** [0.014]	-0.010 [0.022]
Transport and Communication	0.125 [0.269]	0.287*** [0.012]	0.109 [0.130]
Defence	0.148 [0.114]	0.140*** [0.012]	0.188*** [0.066]
Controls	Y	Y	Y Extensive
Fixed Effects	Y	N	N
Lag Dependent Variable	Y	Y	Y
Observations	988	1,016	1,026

. p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001
All models with PCSE
Robust standard errors in parentheses

It is generally believed that social infrastructure like education and to a lesser extent health provide less opportunities for rent-seeking than other sectors like economic infrastructure and as a result this economic infrastructure can be inefficient and

wasteful(Tanzi and Davoodi, 1998, Hines, 1995, Keefer and Khemani, 2003, Mauro, 1998). This economic infrastructure becomes more appealing in these corrupt settings because it is easier to levy bribes and extract rents from(Loftman and Nevin, 1996). This is in line with arguments that corrupt politicians are more able to extract large bribes from and target economic infrastructures towards narrow interests (Mauro, 1998, Vukovic, 2019, Demarest, 2021). And, according to Mauro (1997) it is reasonable to interpret any empirical relationship between corruption indices and particular components of government spending as tentative evidence of targeting and that bribes can be more readily collected from these types of spending. This corruption within economic infrastructure leads to WE projects due to a 'wagon wheel effect' whereby pouring more funds into these categories due to political incentives results in less effective outcomes(Hardoon and Heinrich, 2011, Wright, 2010). In line with this, figures 3-7 and 3-8 demonstrate that political competition increases transport and communication spending in contexts with high corruption and decreases social infrastructure spending; the opposite is true in contexts with low corruption.

Table 3-6 shows that when political competition increases in contexts with high corruption, which means narrow targeting can be widespread, indeed transport and communication, defence, education and social protection increase, whereas social infrastructure* and health both decrease. Although the fact that education increases is not in line with theoretical expectations, it has previously been established that in contexts with high corruption, education spending can be targeted towards elites, via the building of schools, universities, and other education facilities⁹⁴.

So even though it has been argued that within social infrastructure investment, education is the least suited to targeting⁹⁵, it is clearly not completely free from patronage⁹⁶(Mauro, 1998). And works like Galileu (2020) and Morley and Coady (2003) show how within education spending there are many opportunities for patronage towards vested interests⁹⁷. This provides support to arguments that, even investments that are generally considered non-excludable, can be applied in abusive and unequal ways that can turn them into targeted goods(Elkjær and Iversen, 2022). It has therefore been posited that education spending can be characterized with distributive politics and pork barrelism(Lowi, 1964, Gordin, 2002, Lo, 1991). And Stasavage (2005) argues that in this sense education spending can increase political support. And in contexts with high corruption bureaucrats often steal some of the money that should be spent to buy supplies, maintain facilities, and pay teachers(Jayachandran, 2015). But it is important to note that if politics drives spending even on social categories like education and health, in contexts with high corruption, their quality and contribution to growth and development will be low(Davoodi et al., 2010, Galileu, 2020). It is also important to note that education only increases with political competition in one of my empirical specifications.

94 See Baldwin[2016]

95 This is because according to Mauro[1988] it requires widely available mature technology, and it is harder to give a teaching job to an unqualified person.

96 Falkinger and Grossmann[2005] show that within education spending vested interests can be catered to. Kroth[2012] also shows that transfer payments exist within education spending that may be targeted towards special interests in South Africa.

97 Dizaji et al., [2016] show how education can be targeted to the whole population

Social protection spending as a percentage of total government expenditures which is often used to measure redistributive policies also increases with political competition in contexts with high corruption⁹⁸. Theoretically, social protection spending indeed provides opportunities for discretion and rents, but these rents may be limited, per transaction, which may explain why in the other contexts [those with low rule of law or executive constraints], social protection did not increase with political competition. However, the fact that it did increase in contexts with high corruption is in line with findings by Mauro (1998) that fraud is widespread in social protection categories like unemployment benefits and disability pensions. This is also in line with theoretical expectations that social protection can be indicative of redistribution or narrow targeting, especially in MICs (Wibbels, 2006).

3.7. Discussion

Government quality has been defined as ‘impartiality in the exercise of public authority’ or ‘the extent to which public officials implement laws and policies regardless of personal preferences and relationships’ (Rothstein and Teorell, 2008). This impartiality is violated by corruption, low executive constraints and the absence of rule of law (Kyriacou et al., 2019). That is why I focus on these contexts.

The results of this chapter are in line with my hypotheses that transport and communication investment increases with political competition in MIC’s, where the incumbent has more discretion via features that allow patronage and narrow targeting of these investments to increase. And it is clear from all models that economic infrastructure is more targetable in MICs with high corruption, low executive constraints or low rule of law.

One interesting finding is that health spending also increases when rule of law or executive constraints are low, albeit not significantly. Although this is not in line with my

⁹⁸ Only in the FE models

initial hypothesis, it is in line with recent evidence that some aspects of health spending, like spending on building clinics and hospitals can be targeted towards narrow groups (Chen and Kitschelt, 2022). It is also in line with the findings of Drazen and Eslava (2010) and Albalade and Geddes (2015) that health spending increases with elections and arguments by Weitz-Shapiro (2012) that the process required to create almost any good embeds many private goods within it, some of which may be distributed via clientelism. And it is in line with arguments that health-care spending can be targeted to bureaucrats due to the large amounts of bribes and informal payments⁹⁹ that exist within the sector, especially in MICs. This may also contribute to findings that health spending is particularly inefficient and wasteful in MICs (Gupta et al., 1997). The fact that health spending was the only sector of spending that was affected by the inclusion of a lagged variable¹⁰⁰, further highlights the opportunistic and wasteful aspect of this spending.

Contrary to my initial predictions, education spending also increases with political competition in contexts with high corruption. However, this is in line with arguments that education spending can also be characterized with distributive politics and pork barrelism (Lowi, 1964, Gordin, 2002, Lo, 1991). This is believed to be mainly the case when corruption is high¹⁰¹. And Stasavage (2005) argues that when this is the case, education spending can increase political support, yet becomes wasteful.

So, although it is generally believed that education and health spending are harder¹⁰² to target towards narrow interests than economic infrastructure; I find that this is not always the case. This may also be because within health and education spending political patronage is allowed in the form of targeted jobs. My findings suggest that this is more likely the case for health spending. My findings also lend support to arguments that for

99 See Lewis[2007]

100 See Appendix

101 See Keefer and Khemani[2003]; Hicken and Simmons[2008]; Rose Ackermann[2008]

102 See for example Kwon[2005]

health spending, opportunities to collect bribes may be widespread. In general prestige projects like advanced hospital facilities and state-of-the-art medical equipment can motivate opportunistic incumbents to bias spending towards this category. This warrants further exploration into the flows of spending within these broad categories. Another issue that warrants further research is how partisanship can shape targetability, especially in democracies and there is evidence that for leftist governments, health spending is more targetable than economic infrastructure; however, this is beyond the scope of this dissertation and is not particularly relevant to a sample that includes mainly non-democracies.

In line with Mauro (1998), my evidence suggests that education is-for the most part-unattractive for incumbents hoping to narrowly target their spending¹⁰³; this is because it does not require expensive inputs and investments to be provided by business elites. And education¹⁰⁴ is only believed to be more targetable when broad-based¹⁰⁵ and not narrow, targeting is favoured(Dizaji et al., 2016). Incumbents may also prefer to bias spending away from education when political competition is high because they are scared to lose the ability to ‘bribe’ and manipulate uninformed voters. According to Stolfi and Hallerberg (2015), patronage via jobs¹⁰⁶ is also more prominent in health spending than education spending, which may explain why this category increases with political competition when incumbents had more discretion.

So, although many studies on targetable spending argue that in MICs, economic infrastructure is more targetable than social infrastructure and transfers, my findings suggest that investments in health, education, and sometimes even social protection, may be more targetable in MICs.

103 Education is believed to be more broadly targetable[Dizaji et al. 2016]

104 Education spending is believed to have a broad, unorganized constituency in MICs[Wibbels, 2006]

105 This is believed to be preferred in democratic contexts with high vertical accountability[Persson and Tabellini, 2003, Kammass and Sarantides, 2019]

106 Which is a particularly valuable form of patronage in MICs. See Acemoglu et al., [2011], Alesina et al., [1999], Robinson and Verdier, [2013].

And although I find that social protection increases with political competition in contexts with high corruption; this is not the case in contexts with low rule of law and low executive constraints. This further highlights how narrow targeting is induced by political competition in these MICs, since social protection is generally believed to be targetable towards the poor(Akhmedov and Zhuravskaya, 2004, Kroth, 2012). This also for the most part contradicts arguments that social transfers are more targetable, which is one of the most robust findings in the PBC literature(Franzese, 2002).

Generally, defence spending is highly associated with non-economic priorities(Bove et al., 2017). As a result, it is argued that in countries where non-economic priorities are high on the agenda, incumbents with more discretion will prefer to bias spending towards defence and other economic infrastructure. This is in line with my findings that political competition increased spending on defence especially since defence spending helps the incumbent to repress opposition and stay in power and in this sense the armed forces are a key interest groups that contributes to political survival(Silva, 2020, Ross, 2001, Svolik, 2012, Mesquita and Root, 2000). And within defence spending there are generally opportunities for large contracts and bribery and it is generally believed to be narrowly targeted towards vested interests(Dizaji et al., 2016). This is also something I look at in more detail in Chapter 5.

It is important to note, that I do find that political competition can- in some cases- increase aspects of social infrastructure investment like health and to a lesser extent education in contexts where this spending is more likely to be wasteful. It has indeed been found in many MICs that this reduces the quality and efficiency¹⁰⁷ of this spending and its contribution to economic growth and development(Keefer and Khemani, 2003, Duerrenberger and Warning, 2018). This highlights the importance of looking at the

¹⁰⁷ For example, Duerrenberger and Warning[2018] find that increased spending on education does not translate into more years of schooling or higher education levels when there is high corruption.

political drivers of spending, in contexts where politics can theoretically “distort” outcomes.

To summarize, the regression results presented in this chapter reinforce the broader theoretical claim that targetability is shaped not only by the category of spending but by the discretion institutional weaknesses afford incumbents. Consistent across contexts with low rule of law, high corruption, and weak executive constraints, the sectors most responsive to political competition are those with greater potential for discretionary allocation and elite capture. Notably, defence and transport and communication consistently exhibit statistically significant increases with political competition. These findings align with the idea that these sectors offer contracting opportunities, patronage jobs, and rent-seeking channels, making them highly targetable under conditions of low accountability. Conversely, social protection, often framed as a highly targetable pro-poor instrument in the political budget cycles literature, does not behave as predicted—showing negative or null effects in most contexts. This suggests that even theoretically targetable categories may lose political utility where delivery mechanisms are inefficient or voter monitoring is weak. Importantly, the finding that education spending increases under high corruption challenges traditional views that education is a diffuse good, difficult to politicize. In fact, it may reflect growing use of patronage-based job allocation or elite-captured capital spending in the sector. These patterns emphasize that targetability in MICs is context-dependent and dynamic, shaped by the interplay between institutional constraints, sector-specific rent potential, and political incentives. They also highlight the need for more disaggregated analysis of how funds are deployed within sectors—particularly education and health—where mixed findings may stem from variations in how different subcomponents are manipulated for political gain.

3.8. Conclusion

In the previous chapter I argued that as political competition increases, incumbents will target spending towards the categories that their key supporters value the most. Previous

research focused on democracies and the targetability of social transfers and neglected the aspect of elite capture that exists within economic infrastructure projects. This targeting is believed to only compromise the efficiency of spending if it is towards narrow interests. Since incumbents will not always be able to target spending to narrow interests, I focus on contexts in which theoretically incumbents have more discretion to target narrow interests.

Theoretical arguments suggest that in MIC's political competition increases narrow targeting, towards narrow interests (Keefer and Khemani, 2003). In this chapter, I find that targeted spending takes a variety of forms in different contexts, and that within all government expenditures there may be targeted elements. It is clear from my findings, that it is difficult to classify expenditures into 'targeted' and 'non-targeted'. However, I can provide rough evidence that in MICs, economic infrastructure is more targetable than social infrastructure.

In conclusion, from my results it can be argued that transport and communication and defence investments are more narrowly targetable, because they are the categories that tended to increase in all models and all contexts where incumbents had higher discretion. This is in line with arguments that economic infrastructure is more targetable towards narrow, elite interests, while most elements of social infrastructure and social protection as a whole are targetable towards more broad-based interests (Diaz-Cayeros et al., 2016). Therefore, when an incumbent has more discretion, they will prefer targeting spending towards narrow interests. This highlights why they are at more risk of becoming wasteful and is in line with theoretical predictions and empirical findings of a bias towards economic infrastructure in MICs¹⁰⁸.

108 See Gurara [2017]; Bisbey et al. [2020]; Kenny [2006]; Hammerschmid and Wegrich [2016]; Ocampo [2015]; Cavallo and Daude [2011]; Mauro [1998]; De la Croix and Delavallade [2009]; Khemani [2010]; Arezki et al. [2017]; Trabelsi and Boujelbene [2024]; Egert et al. [2009]

The relevance of my findings lies in exposing the investments that are more prone to political distortions and harmful economic repercussions in developing countries. Finding that economic infrastructure is more prone to harmful and narrow targeting is critical not only to understanding why there is overinvestment in economic infrastructure categories at the expense of social infrastructure categories in these contexts, but also to understanding the proliferation of WE and more generally, the MIT. This is also important to understand because explaining why incumbents bias spending away from education spending can help explain the ‘ignorance trap¹⁰⁹’ that is created due to this manipulation.

109 Janku and Libich[2019]

Chapter 4: Visibility and Vertical Accountability in MICs

4.1. Introduction

I demonstrate in Chapter 3 how political competition can shape the allocation of investment differently, according to institutional constraints that shape how able an incumbent is to target different investments towards narrow interests. This is based on the argument that even though high political competition may create an incentive for incumbents to manipulate the budget towards narrow interests, they are not always awarded the discretion to do so successfully. Recent research has highlighted that although it is often believed that manipulation via targeting is more widespread in developing countries, signaling competence via spending on more visible goods is still important for political support in these contexts.

In general, explanations for the under-provision of social infrastructure investments in developing countries have focused on supply side factors[that I analyzed in the previous chapter] like governance and institutions; however according to Keefer et al. (2020), public spending misallocation may also represent demand side factors(Besley and Kudamatsu, 2006, Uribe, 2013). And the characteristics of interest groups and the public will affect their preferences and their ability to push for investments that are favorable to them(Becker, 1983). Therefore, the characteristics of these groups in terms of transparency, education, and information access affect the public's knowledge and subsequently the visibility and the form that politically induced manipulations will take. These factors are generally linked to visibility arguments and therefore, by splitting the sample according to these demand side variables, we can understand what categories of investment are more visible in the contexts where this manipulation is more likely to be harmful.

More visible categories of investment are more attractive to incumbents seeking political support because they signal ‘competence’ (Rogoff, 1990, Keefer and Vlaicu, 2005, Mogues and Rosario, 2016). And according to Mani and Mukand (2007), this is mainly the case in MIC’s where this ‘electioneering’ or ‘manipulation’ is less likely to be punished (Peltzman, 1992). In these contexts, with low information, manipulation is a major impediment to the productivity of infrastructure investments. Namely, I focus on contexts with low vertical accountability, through low transparency, education levels or low press freedom.

I focus on these subsamples because according to early PBC and economic voting literature, which focused on ‘visibility’ not all groups are as malleable to budget manipulation by incumbents, and some may punish an incumbent for electioneering. As a result, certain features, like freedom of the media and voter information can affect whether the public relies on intrinsic visibility or not and therefore what is visible to them. This highlights how the characteristics of the public are an important variable that will affect investment allocation and its productivity. Among the relevant variables identified by the literature are, access to free media (Brender, 2003), education (Alt and Rose, 2009) and transparency or fiscal illusion¹¹⁰ (Gonzalez, 2002, Buchanan and Wagner, 1977).

Here I hypothesize that whether the public is informed or uninformed will affect the direction of manipulation. This is because when voters are unable to monitor government performance effectively, they may need to rely on intrinsic visibility as a signal of competence (Gonzalez, 2002, Alt and Lassen, 2001, Alt and Lassen, 2006). They will therefore favor these investments over more long-term less visible categories (Achen and Bartels, 2017, Wang, 2018, Philips, 2016). In line with this, what is more visible varies from context to context.

110 Defined by Gonzalez [2002] as the likelihood with which the voters learn the politician’s competence from spending

The main premise I base my argument on is that incumbents have ‘career concerns’ which make them have incentives to signal their competence to the public. According to PBC theories, this can be done via investing in more visible categories (Rogoff, 1990). But these theories have more recently acknowledged that if voters are rational and well informed, they will not be fooled, and an incumbent will not be able to manipulate policy or spending towards more visible categories to enhance their survival prospects. On the other hand, it is generally accepted that when voters are uninformed, they become myopic and make irrational decisions, which reduces social and economic welfare (Stokes, 2005, Bartels, 2008, Caplan, 2007). This suggests that the efficiency of spending may depend on accountability induced by voters.

Building on Chapter 3, this chapter contributes to a growing theoretical literature on the connection between voter information and political and economic outcomes. Pioneered by Coate and Morris (1995) this literature argues that voter information will shape the flow of spending because limited information can increase manipulation towards certain sectors and subsequently decrease the efficiency of spending and its outcomes (Lizzeri and Persico, 2001, Glaeser and Ponzetto, 2013, Ponzetto and Troiano, 2014, Carr, 2015, Bergman and Hutchison, 2014). By focusing on these contexts, this chapter will contribute further towards examining the theoretical link between budget manipulation and inefficient outcomes and WE, through examining the demand aspect of manipulation that shapes vertical accountability.

4.2. Visibility and Vertical Accountability^m

As I showed in Chapter 2, there are theoretical and empirical reasons to believe that valuing only what is intrinsically visible can upend efficient spending decisions. But what makes the public only value intrinsically visible investments? The literature on the political economy of public investment is relatively well established, but by primarily

¹¹¹ This is also known as social accountability because it does not rely on changes in the political incentives of leaders in government to trigger better performance on the part of providers.

focusing on the characteristics of developed democracies, it has neglected the reality that certain characteristics of the public themselves can induce distortions in the budget by affecting the composition and success of manipulation (Keefer et al., 2020). This is despite the fact that various mechanisms have been proposed in theoretical works to explain why manipulation via visibility is successful, including asymmetric information and voter myopia, with the most important being the quality of information (Rogoff, 1990, Healy and Malhotra, 2009). And it is generally believed that information constraints mean that citizens are less able to hold politicians accountable, which suggests that political competition may have a negative effect on the allocation of investment.

It is, therefore, fair to argue that governments responding to political competition will underinvest in less visible categories. When the public is uninformed, their inability to hold the government accountable can contribute to significant inefficiencies in government spending. This is believed to reduce social welfare and economic development by discouraging insecure incumbents from investing in long-term, less visible categories. And instead incumbents become more likely to provide the inefficient investments that are more intrinsically visible to voters and therefore signal their competence (Healy and Malhotra, 2009).

This is more likely to be harmful in MICs, where the public is poorly informed. In these cases, it is believed that the public will not be able to distinguish between competence and manipulation (Shi and Svensson, 2006, Akhmedov and Zhuravskaya, 2004, Brender and Drazen, 2005, Rogoff, 1990, Milesi-Ferretti et al., 2001). These populations are therefore more prone to harmful political manipulation, and it will be more successful in these contexts (Eibl and Lynge-Mangueira, 2016, Rogoff, 1990, Carkoglu and Aytac, 2014). The logic is that poor information, reduces accountability and therefore means that political competition leads to more manipulation towards visible yet inefficient investments (Gottlieb and Kosec, 2018, Healy and Malhotra, 2009). And in general, if an incumbent is not afraid of scrutiny from the public it is believed that they will be more

able and motivated to manipulate the budget towards more visible categories for political gain (Fukumoto et al., 2020, Gordon and Huber, 2007). But if information asymmetries do not exist, voters can punish incumbents for manipulations, rendering them less effective (Alesina et al., 1997, Brender and Drazen, 2005, Alesina and Stella, 2011).

Information asymmetries may exist for several reasons, for example this may be because of low education levels, limited access to the media or because the media is restricted. As a result, literacy levels, the share of informed voters and the media can all affect visibility (Mani and Mukand, 2007, Janku and Libich, 2019, Shi and Svensson, 2006). And less informed voters are believed to reward investment in intrinsically visible categories, for example, there is evidence in the US that only when the proportion of educated voters increased, economic infrastructure investment, megaprojects and pork barrelism decreased (Altshuler and Luberoff, 2003). This is because uninformed voters more readily perceive or observe the upside of economic infrastructure projects, and only when they have more information will they understand the drawbacks of this overbuilding and the benefits of long-term social investments (Glaeser and Ponzetto, 2018). As a result, it has been posited that lower information can distort incentives to provide broad social investments to the people who need them the most because they are less intrinsically visible and it is difficult to attribute investments in and improvements in social services to these incumbents (Keefer and Khemani, 2003, Gingrich, 2014, Mani and Mukand, 2007, Harding, 2015). And in these low information contexts, lobby groups and public opinion that highlight social welfare also do not have an institutional basis; which makes social spending less visible (Potrafke, 2010, Vortherms, 2019). As a result, low information can increase manipulation away from social investments and towards more intrinsically visible economic infrastructure categories, even if they are wasteful (Khemani, 2004, Kahn and Zimbalist, 2022). And these investments can often become failures or WEs and the incumbents are able to ‘spin scenarios of success and gloss over the potential for failure’ (Flyvbjerg, 2009). Whereas in contexts where voters are more informed, the public can extract greater social investments, less manipulation and better overall economic

performance from incumbents (Besley and Preston, 2002, Stromberg, 2001). Therefore, in general, when information, education and voter understanding of fiscal issues is low, opportunism and manipulation are more widespread and politically successful, despite being economically wasteful.

A review of the literature makes it clear that categories of investment that are visible will depend on voter information. It also makes it clear, that political competition will upend intelligent spending decisions and divert investment away from productive sectors when there is less transparency and low vertical accountability. I therefore focus on these contexts.

4.3. Argument

In the previous chapter, I tested my argument that the form of budget manipulation will depend on different aspects of horizontal accountability. I argue in this chapter that the negative effect of budget manipulation will also depend on vertical accountability, specifically the role of the public in determining what is more visible and therefore the success of using different investments to signal competence. These factors will affect the ability of an incumbent to manipulate investment and the potential success of manipulation, subsequently affecting the form that manipulation will take and theoretically, how wasteful it will be.

According to the empirical evidence to date a wide array of investments have been deemed more visible in different contexts. For example, Kneebone and McKenzie (2001), Khemani (2010), Medina and Stokes (2007), Veiga and Veiga (2007), Klein and Sakurai (2015), Bonfatti and Forni (2019) and Gonzalez (2002) highlight the intrinsic visibility of economic infrastructures and construction projects like roads, schools and hospitals. On the other hand, Rogoff (1990) defined current spending as more visible, and for a while this was accepted by most research on budget cycles. Marx (2018) and Schneider et al. (2010), however claim that education and health are more visible and education and development projects were found to be more visible in Israel by Brender and Drazen

(2005). Nguyen and Bui (2022) also claim that spending on social infrastructure is more visible. It is important to note that most studies that found that social infrastructure was more visible were focused on developed democracies (Potrafke, 2010). And although there is some discrepancy with respect to which budget items are more 'visible', it is often assumed that economic infrastructure investment has particularly high visibility in MICs (Akhmedov and Zhuravskaya, 2004; Veiga and Pinho, 2007). This may be because, theoretically, low information and myopia of the public, can result in large economic infrastructure projects being relied on more due to their intrinsic visibility and therefore increase the risk of them becoming WE prestige projects (Rodríguez-Pose et al., 2018). On the other hand, social spending categories are believed to only be visible to 'attentive' and 'informed' voters (Bueno, 2021).

It has been accepted that harmful budget manipulation will only emerge when voters and the media have not yet developed the ability to monitor spending policies or observe the full details of the manipulation. If this is the case the public will have to rely on intrinsic visibility to deduce competence, which may compromise the long-term efficiency of investments (Ferris and Dash, 2019). This is because the information that the public possesses affects how much they know about the efficacy and necessity of different categories of investment (Achen and Bartels, 2017). Therefore, one explanation for underinvestment in certain categories relates to the argument that it is difficult to observe these investments, especially when voters are not informed enough to reward incumbents for this spending. This absence of 'observed' or 'visible' outcomes is believed to often lead to perverse outcomes via budget manipulation (Gailmard and Patty, 2019, Rogoff, 1990).

Therefore, in this chapter, I argue that in MIC's economic infrastructure investments are relied on to signal competence due to their intrinsic visibility and the fact that they are high up on their developmental agendas which makes them more salient and extrinsically visible too. I argue that these investments only successfully signal competence when the

public is less informed and there is less transparency. And even though it is reasonable to assume that in all contexts economic infrastructure is more intrinsically visible; it is clear from works like Rogoff (1990) that it is not always more extrinsically visible and therefore does not successfully signal competence in developed democracies. This is because more transparency and information mean that public opinion, the media and lobby groups that highlight social welfare have an institutional basis and social infrastructure can be more visible to the public (James et al., 2015, Vortherms, 2019).

4.3.1. Hypothesis

The observable implication of this, is that we should see the effect of political competition on the allocation of investment driven by certain characteristics that theoretically should shape visibility. Empirically, I expect that uninformed voters in MICs prefer more intrinsically visible investments in economic infrastructure. To this end, I test the following hypothesis in this chapter:

H₂: In MICs, with low information, knowledge or transparency, the public relies more on intrinsic visibility so economic infrastructure will increase with political competition at the expense of social infrastructure.

Like in the previous chapter, I further explore, which categories within economic and social infrastructure are indeed more visible, to enhance the policy implications of my findings and enable the symptoms of potentially wasteful investments to be realized earlier on.

4.4. Results

4.4.1. Education

Av_tyr_sch Barro-Lee Educational Attainment Data Average Total years of schooling,
population ages 15-64

Figure 4-1 Effect of Political Competition on Transport and Communication Across Schooling

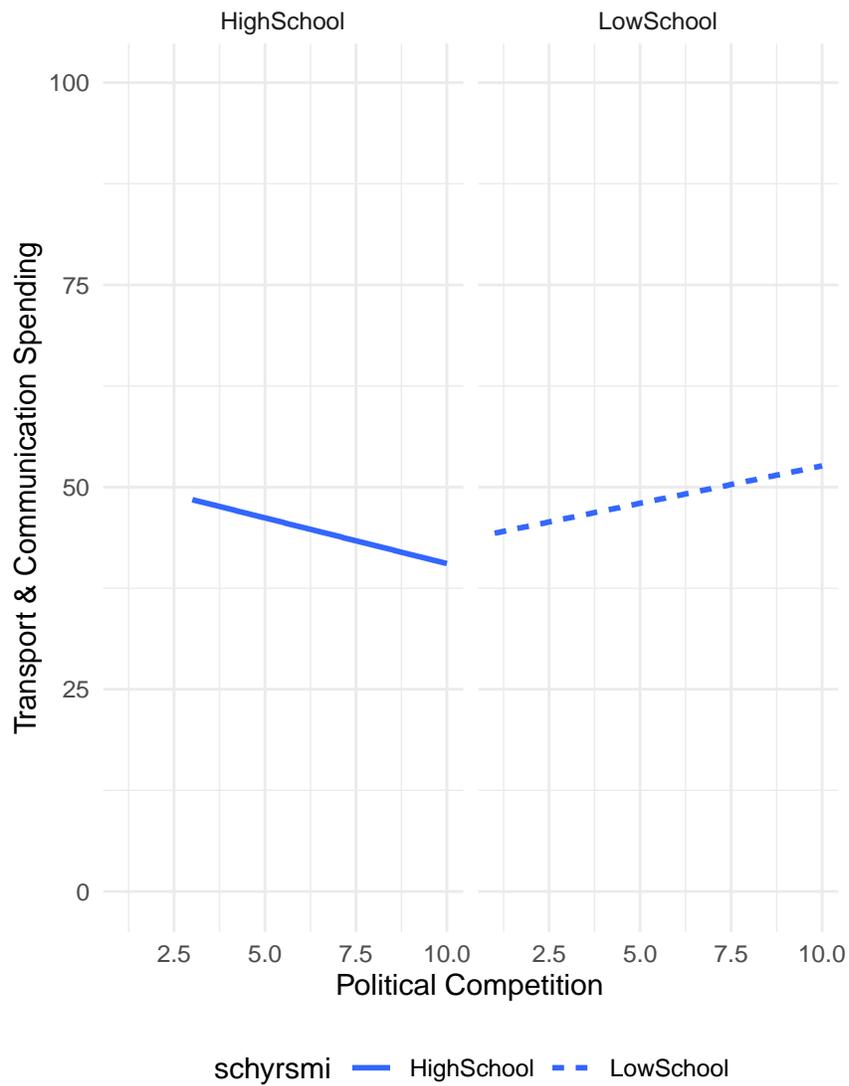


Figure 4-2 Effect of Political Competition on Social Infrastructure Across Schooling

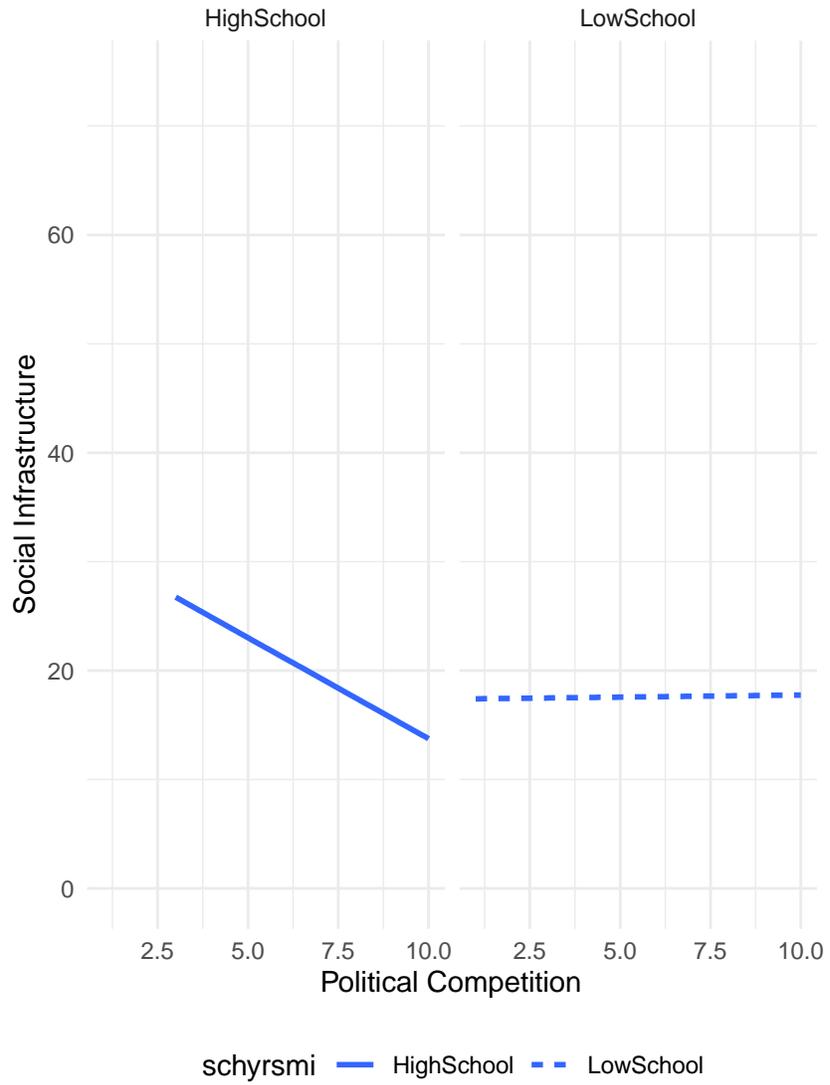


Table 4-1 Regression Results: Effect of Political Competition on Spending in Countries with Low Schooling

DV: Investment % in this category	FE	RE	OLS [Pooled]
Social Infrastructure	0.250* [0.104]	-0.071*** [0.015]	-0.071 [0.062]
Education	0.179*** [0.051]	-0.083*** [0.016]	-0.047 [0.038]
Health	0.126* [0.076]	-0.016 [0.015]	-0.030 [0.051]
Social Protection	-0.025* [0.033]	0.039** [0.018]	0.033 [0.025]
Transport and Communication	0.048 [0.224]	0.142*** [0.015]	0.112 [0.147]
Defence	0.091 [0.105]	0.055*** [0.015]	0.162** [0.075]
Controls	Y	Y	Y Extensive
Fixed Effects	Y	N	N
Lag Dependent Variable	Y	Y	Y
Observations	716	725	750

. p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001
All models with PCSE
Robust standard errors in parentheses

Populations with low levels of education, are believed to only care about immediate visibility when deducing competence. This is because they tend to discount the future and undervalue more long term investments(Kouvavas, 2013). They are therefore more prone to harmful budget manipulation(Sanjuán et al., 2020). Nannicini et al. (2013) argue that lower education suggests less control over the actions of incumbents since more educated citizens are believed to be more able to hold their leaders accountable(Lindstedt and Naurin, 2010). This suggests that incumbents in these cases may feel less constrained in pursuing strategic manipulation of investment. And education in general is a good indicator of the quality of information the public has.

In line with this, the results from Table 4-1 suggest that in countries with low average years of schooling, where the population should, theoretically be more myopic, malleable, and less informed, political competition increases investment in transport and communication and defence in line with theoretical expectations. This is believed to be because of the strong competence signaling these projects provide and their quick and intrinsic visibility. However, although I expected social infrastructure* to decrease, this is not the case and I also find that health* and education* increase¹¹², which although is against my theoretical expectations, is in line with arguments that health can be salient[and therefore visible] to the poor (Glaeser and Ponzetto, 2013). And there is some evidence that less informed voters are believed to prefer basic necessities, like schools and hospitals(Diaz-Cayeros et al., 2016). This makes them more salient, and subsequently visible.

But recent research has highlighted how variables like years of schooling do not accurately reflect information levels and future research may benefit from using measures

¹¹² This is only in the FE models. It is interesting that we observe that for all social categories, in the FE model the effect of political competition is completely opposite to RE and OLS models; however for economic infrastructure the effect is consistent.

of the quality of education, like for example test scores. This data was not available for my sample of countries, but this limitation is important to mention.

4.4.3. Transparency

diat_ti	Transparency Index [Dataset for Information and Accountability Transparency]	The dataset “A global index of information transparency and accountability” [Williams, 2015] uses a relatively new methodology, like Transparency International’s Corruption Perceptions Index, to construct composite indicators of Informational Transparency, and Accountability. The indicator uses data from 29 sources, with scores being derived annually across more than 190 countries. Higher scores= more transparency
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Figure 4-3 Effect of Political Competition on Transport & Communication Across Transparency

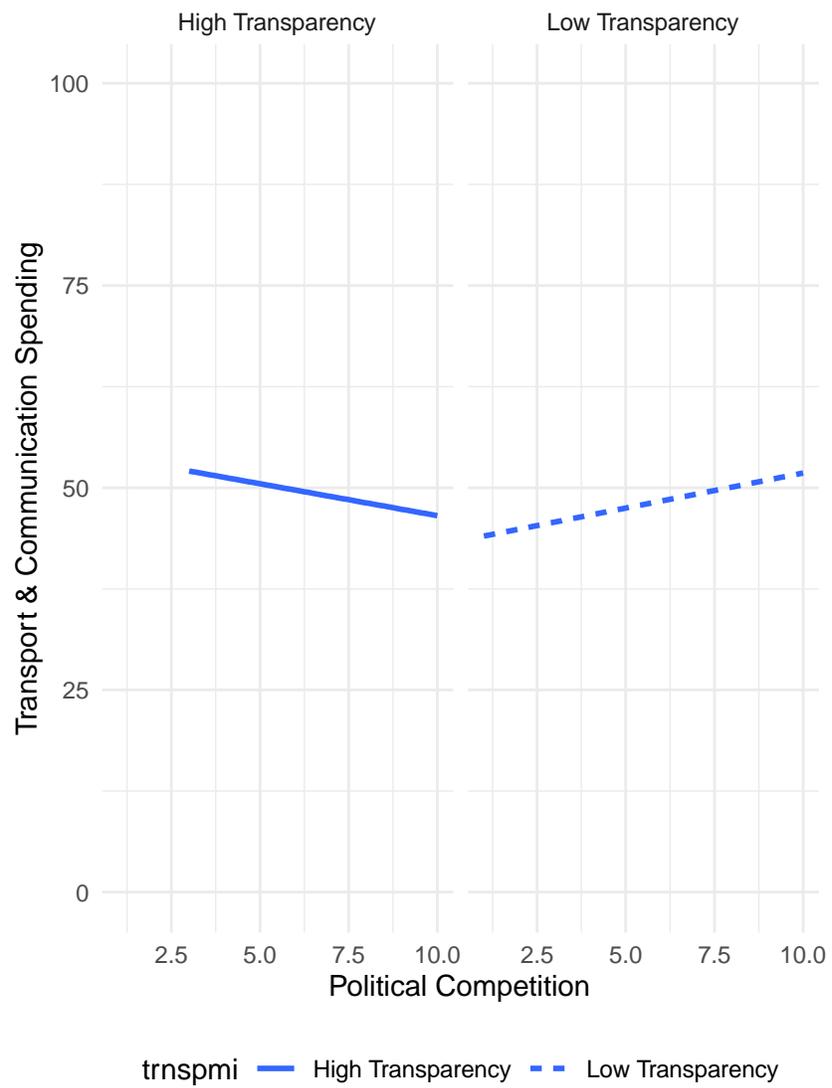


Figure 4-4 Effect of Political Competition on Social Infrastructure Across Transparency

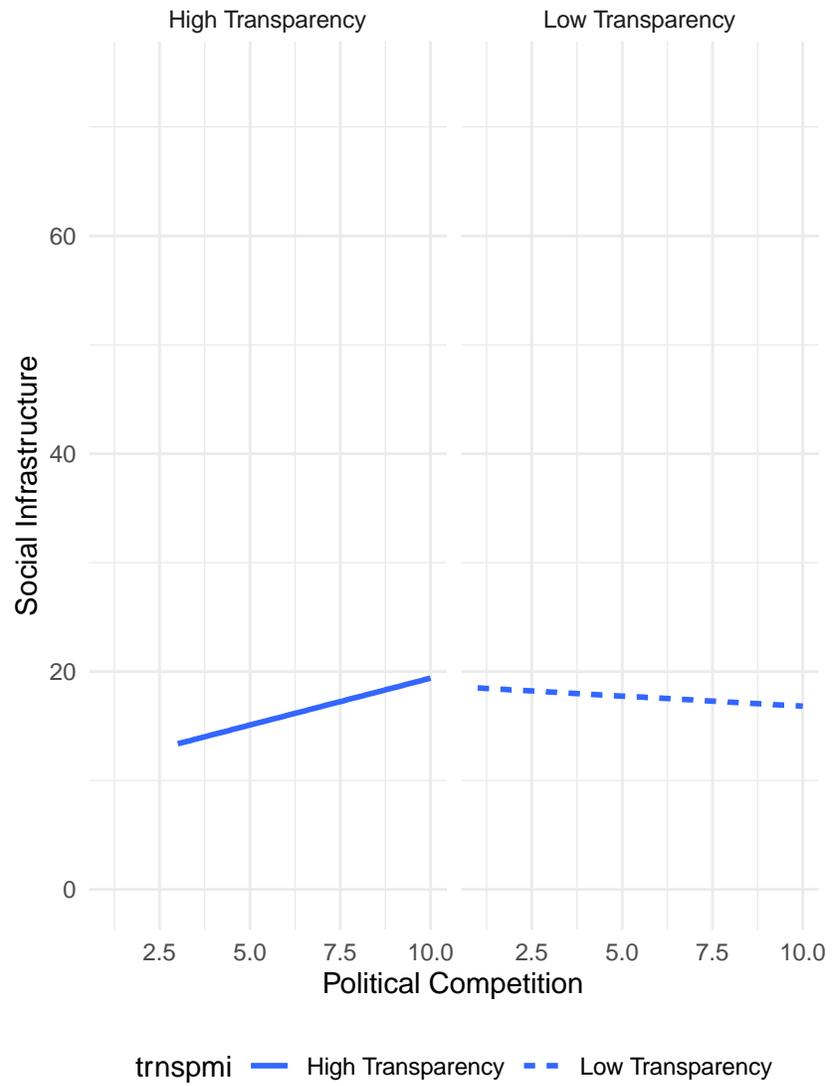


Table 4-2 Regression Results: Effect of Political Competition on Spending in Countries with Low Transparency

DV: Investment % in this category	FE	RE	OLS [Pooled]
Social Infrastructure	-0.021 [0.104]	-0.014 [0.011]	-0.028 [0.058]
Education	0.088 [0.056]	-0.020 [0.013]	-0.011 [0.039]
Health	0.080 [0.082]	0.019 [0.012]	-0.042 [0.049]
Social Protection	-0.089** [0.037]	-0.060*** [0.013]	-0.037* [0.022]
Transport and Communication	0.085 [0.197]	0.095*** [0.011]	0.047 [0.115]
Defence	0.149* [0.084]	0.144 [0.014]	0.195*** [0.056]
Controls	Y	Y	Y Extensive
Fixed Effects	Y	N	N
Lag Dependent Variable	Y	Y	Y
Observations	975	991	992

. p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001
All models with PCSE
Robust standard errors in parentheses

Higher levels of transparency reduce information asymmetries and leave less room for incumbents to manipulate the budget for their private interests(Chen and Neshkova, 2020). Crucially, increased transparency makes the public more able to distinguish competence or effort from opportunistic behavior or manipulation mainly “by providing actors with greater degrees of certainty about the present and future behavior of other actors”(Hall and Taylor, 1996). As a result, the political benefits of manipulating the budget have been found to be higher in less transparent contexts, where it is harder to hold politicians accountable(Keefer et al., 2020, Haan and Klomp, 2013, Gottlieb and Kosec, 2018). On the other hand, the economic benefits of politically motivated investment in less transparent contexts are severely compromised. And transparency has been identified as the most important factor in depoliticizing government investment in economic infrastructure, because efficient allocation requires a high degree of transparency(KPMG, 2010).

Theoretically low transparency should mean that voters will use readily available information about an incumbent’s competence and performance based on intrinsic visibility(Healy and Lenz, 2017 , Shleifer and Vishny, 1993, Mani and Mukand, 2007). As a result, there is evidence that economic infrastructure investments are favored by opportunistic incumbents in contexts with low transparency (Bonfatti and Forni, 2019); which I argue is due to their intrinsic visibility.

And indeed, transparency levels yielded some significant findings[see Table 4-2] and in countries with low levels of transparency, where the public should presumably rely more on intrinsic visibility to deduce competence, I indeed found that transport and communication, health, education and defence* all increase with political competition, whereas social infrastructure as a whole and social protection* decreased.

Although I expected health and education to decrease, my results highlight that all categories of spending that include capital aspects increased¹¹³; whereas social protection[the only category with no capital spending] decreased significantly and consistently across models. This is in line with previous findings that intrinsically visible categories will be favoured by opportunistic politicians in contexts with low information because they are better able to overcome these information asymmetries (Mani and Mukand, 2007, Kahn and Zimbalist, 2022, Khemani, 2010).

Within education and health spending, there is significant construction spending. As I mentioned before, health and education may also be more visible because they are more important to the poor and therefore they cultivate political support in contexts with poverty due to their salience (Keefer and Khemani, 2003, Stasavage, 2005). This is also in line with findings of Nguyen and Tran (2023) that education and health signal competence in MICs. They are also believed to provide more immediate gains through the jobs they provide.

Although initially social protection and transfers were believed to be the ultimate example of visible spending. I find that in MICs it seems that social protection is not believed to signal competence which makes it less attractive for political manipulation.

¹¹³ However, this is only the case in the fixed effect model

4.4.4. Media

rsf_pfi Press Freedom Index [Reporters without Borders] The Press Freedom index measures the amount of freedom journalists, and the media have in each country and the efforts made by governments to see that press freedom is respected. It does not take account of all human rights violations, only those that affect press freedom. Lower values mean press is freer.

Table 4-3 Regression Results: Effect of Political Competition on Investment in MIC with Low Press Freedom

DV: Investment % in this category	FE	RE	OLS [Pooled]
Social Infrastructure	0.089 [0.094]	0.045*** [0.011]	0.031 [0.060]
Education	0.121** [0.052]	-0.019 [0.012]	0.0004 [0.037]
Health	0.109 [0.072]	0.030*** [0.012]	-0.022 [0.046]
Social Protection	-0.073** [0.035]	-0.057*** [0.013]	-0.031 [0.023]
Transport and Communication	0.063 [0.179]	0.119*** [0.011]	0.072 [0.110]
Defence	-0.030 [0.077]	0.099*** [0.011]	0.133*** [0.052]
Controls	Y	Y	Y Extensive
Fixed Effects	Y	N	N
Lag Dependent Variable	Y	Y	Y
Observations	1,015	1,019	1,035

. p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001
All models with PCSE
Robust standard errors in parentheses

Besley and Burgess (2002) highlight how media freedom and availability are important for creating accountability. The media is also a mediating factor in what the public observe, because it has the power to set the agenda on the issues that citizens use to evaluate politicians, thereby making them more visible (Krosnik, 1988). Available research highlights the role of the media as a force for persuasion, and as an institution that can address coordination problems among the population beyond information alone (Keefer and Khemani, 2003). The media also plays a pivotal role in supplying the public with information, making different investments more visible and shaping public opinion, making it a crucial mediator of the forms of budget manipulation (Strömberg, 2004, Veiga et al., 2017, Klomp and Haan, 2016, Geddes, 1996). And according to Shi and Svensson (2006), Akhmedov and Zhuravskaya (2004) and Veiga et al. (2017) variations in access to free media can explain differences in budget cycles across countries, to the extent that it has been described by Klomp and Haan (2016) and Veiga et al. (2017) as the most important conditioning factor of budget manipulations. And fiscal transparency is believed to mitigate the harmful effect of budget manipulation, through the strength of the media (Alt and Lassen, 2006).

The quality of information can therefore be proxied by media freedom data, and theoretically when the media is restricted, there should be greater manipulation of the budget towards more intrinsically visible sectors which compromises the efficiency of investment and worsens economic and social outcomes (Djankov et al., 2003). This is because when the media is restricted and owned by the government, it can be used to make certain 'opportunistic' categories more visible and salient (Banerjee et al., 2020). To account for this, I use the Press Freedom Index from Reporters without Borders. This measure is believed to proxy the share of uninformed voters (Luhmann et al., 2020).

In countries with low press freedom [see Table 4-3], I find that again political competition increases investment in the more intrinsically visible transport and communication. But I

also find that social infrastructure, education* and health increase with political competition; whereas defence and social protection* decrease.

This is in line with my previous findings that health and education are more visible and is justified by the fact that within health and education spending, schools and hospitals are believed to be visible to large groups of the population. As a result, they have been found to successfully signal competence(Wiguna and Khoirunurrofik, 2021). As I mentioned previously, education investment is believed to contain different facets, some of which are intrinsically visible, and some are not. My findings are in line with those by Abou-Chadi and Immergut (2019), Jacques and Ferland (2021), Busemeyer and Garritzmann (2019) and Garritzmann (2016), that education is widely popular and subsequently visible. Healthcare is also believed to include significant industrial spending that is used for intrinsically visible aspects such as construction(Vortherms, 2019). And it is believed to be a very salient category that is high on the public list of priorities(Bove et al., 2017).

These mixed results may be because if the media is not free, it can be used to highlight and make visible a wide range of investments. It could also be that controlling the media makes it easier for politicians to take credit for a number of different investments and to make different infrastructure investments more visible¹¹⁴ via propaganda(Mullin and Hansen, 2022, Doner and Schneider, 2017).

¹¹⁴ For example, Vortherms[2019] showed how making education a promotion target and highlighting it in the media in China made it more visible.

Figure 4-5 Effect of Political Competition on Transport and Communication Across Press Freedom

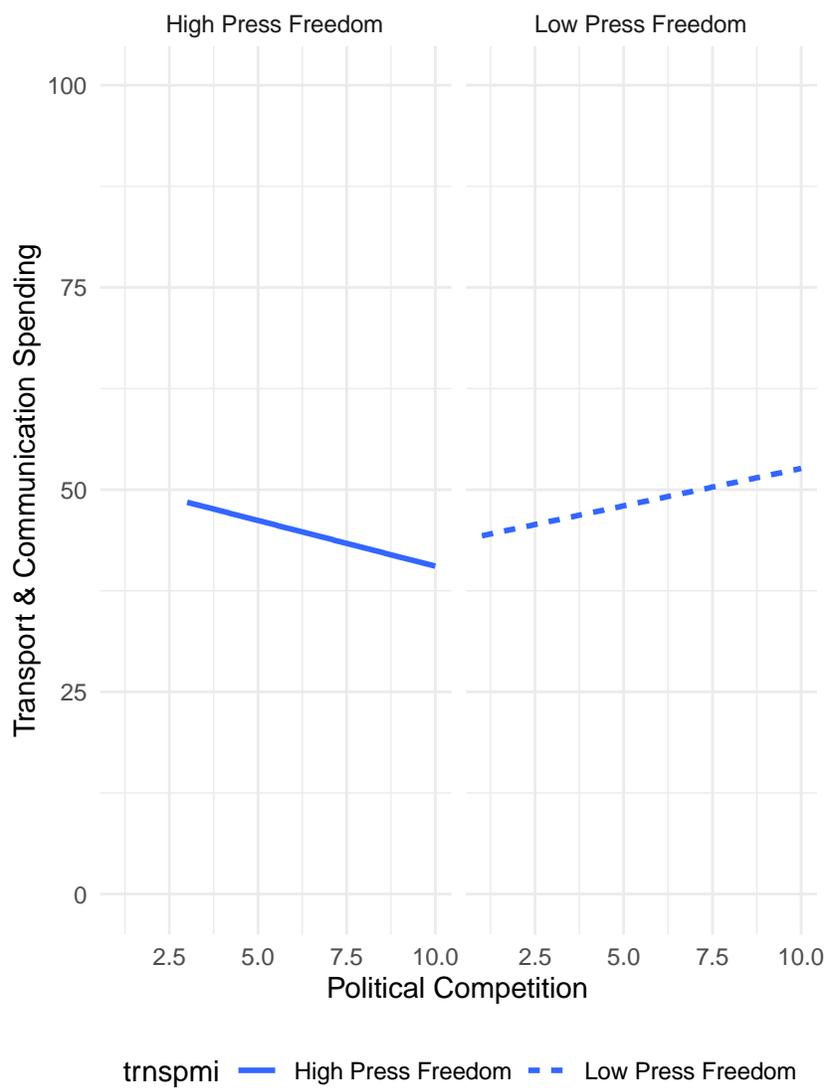
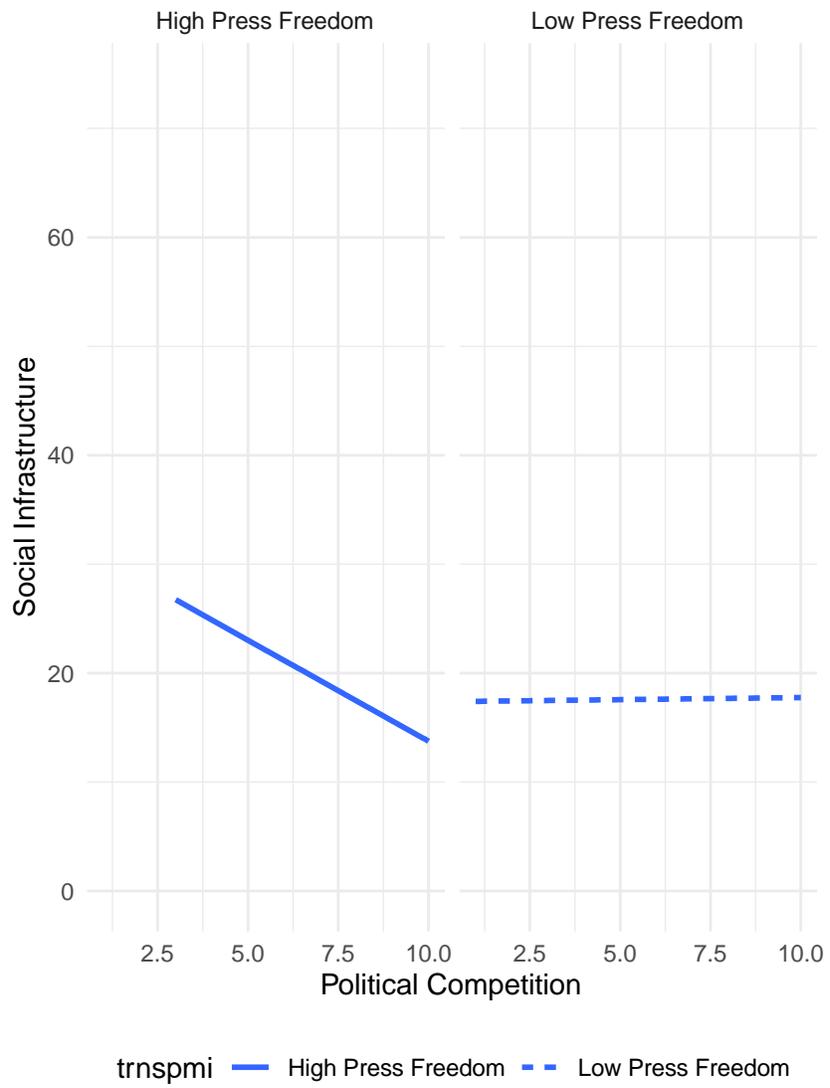


Figure 4-6 Effect of Political Competition on Social Infrastructure Across Press Freedom



4.4.5. Newspaper Circulation

news_WB World Bank Daily newspapers per 1,000 people

Access to media has also been used to measure voter information and can be proxied by newspapers per 1000 (Repetto, 2017). According to Besley and Burgess (2002) this measure adequately captures the flow of information about policy to citizens. And newspaper circulation is believed to be directly related to competence signaling (Drago et al., 2014). Therefore, I also look at how access to media, proxied by newspaper circulation. The results of the regression analysis are not significant, but I include figures below to show similar patterns to those found above.

Figure 4-7 Effect of Political Competition on Transport and Communication Spending Across Newspaper Circulation

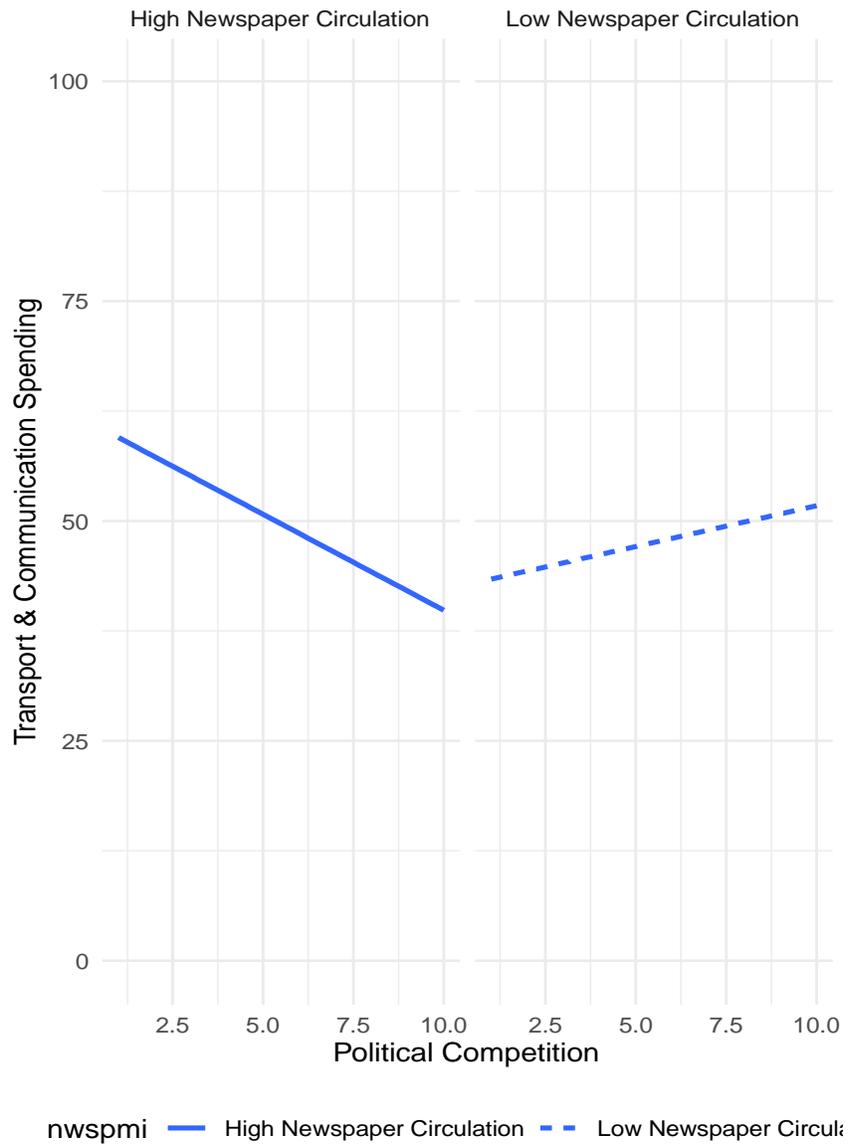


Figure 4-8 Effect of Political Competition on Social Infrastructure Across Newspaper Circulation

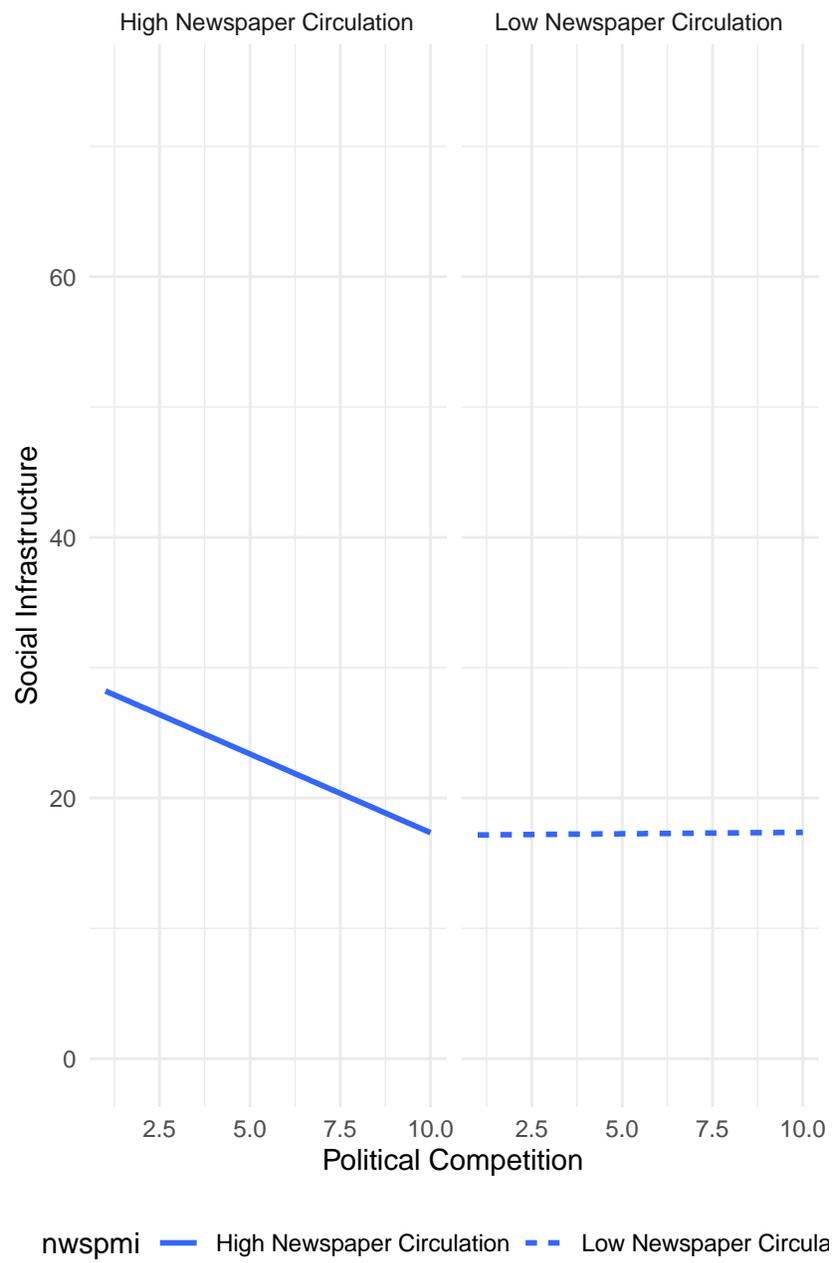
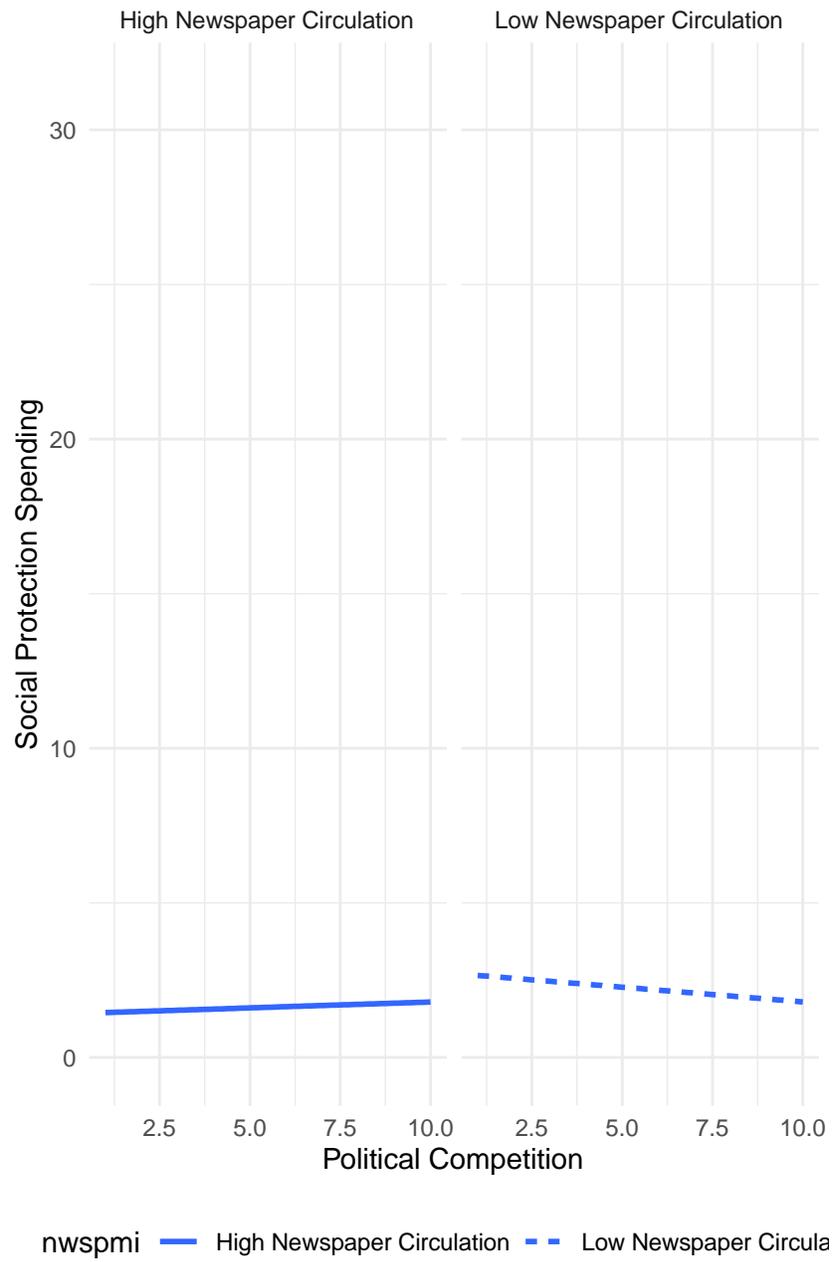


Figure 4-9 Effect of Political Competition on Social Protection Spending Across Newspaper Circulation



4.5. Discussion

I argued in this chapter that information constraints are generally believed to push the public to place more weight and derive competence from intrinsically visible investments. This creates perverse political incentives and distorts the allocation of spending away from more productive investments, towards short-term visible ones. Therefore, how well informed the public is will determine how an incumbent will respond to political competition and the wastefulness of this manipulation.

The findings of this chapter lend support to empirical evidence that a wide range of investments have been found to be more visible in different empirical contexts. They also highlight how even theoretically; visibility is very difficult to pre-define. For example, Rogoff (1990) views spending as visible only if it is immediately visible at the time it occurs. As such according to his model, only social protection and transfers are visible, this is not what I find.

Other studies claim that visible spending categories are those that have visible outcomes, like improved health or education. However, with the increase in studies on visibility in non-democracies and less developed contexts, it has emerged that visible spending, can be spending on bricks and mortar, that is more intrinsically visible (Drazen and Eslava, 2010). There are even arguments that construction is immediately visible, especially in MICs which are known for fast construction and large-scale projects. There are also arguments that what is more visible, is whatever is in line with the public priorities (Ferris and Dash, 2019). This highlights the importance of understanding what is more visible in different contexts, especially those where theoretically manipulation towards visible investments is more likely to lead to adverse economic outcomes. As such, this is what this chapter explores. And in line with much of the literature¹¹⁵, I find that budget manipulation towards more visible categories can be found within several different

115 See Phillips [2016] and Koppl et al., [2016]

categories of both social and economic infrastructure. This highlights why evidence for manipulation in developing countries has been ambiguous and at times even contradictory¹¹⁶.

Recent assumptions are that health and education have low short term and immediate visibility, making them not particularly politically valuable¹¹⁷. In line with this I expected low information to increase spending only on intrinsically visible investments within economic infrastructure. However, this was not the case, which may suggest that the type of information may be an important factor to consider in this relationship. This also highlights the need for more qualitative analysis on the visibility of different aspects of spending within education and health. Because although it has been argued that less informed populations will value health and education provision less; it is clear that this is not necessarily the case and in line with Sen and Dreze (1995), education may be seen by these people as the most promising chance for a better life, making it more visible¹¹⁸.

I also find that even though, visibility through outcomes-which is generally associated with social infrastructure investment- was thought to be less important in MIC's, this is not necessarily the case. Instead, I find that both health and education increased with political competition in these contexts¹¹⁹. And my findings show that in line with Blais and Nadeau (1992) and Veiga and Veiga (2007), health and education can more suited to political manipulation(Galli and Rossi, 2002).

According to the literature they may be more visible because these sectors are more salient to populations in MICs(Johannessen, 2019, Schiumerini, 2016). This is because they are generally seen to be 'good' policies(Castro and Martins, 2018). These sectors are also believed to be more visible to broader groups of the population, which may be more

116 For example, in Mexico, Hecock[2006] finds that health is more visible, whereas Clearly[2007] does not find evidence for this.

117 Sanjuan et al. [2020]

118 Education was found to be visible by Rios[2020]; Castro and Martins[2016]; Turyna et al. [2016]

119 Although especially for education, this was not found in all empirical specifications

important for political support, especially in democracies¹²⁰, but even in non-democracies where low and middle income voters are usually left behind (Vergne, 2009). This makes them a form of populist policy that can generate broad based political support (Doležalová, 2011, Hübscher et al., 2020); especially since they are believed to be popular with all segments of the population (Castro and Martins, 2018). They are also believed to emphasize government involvement in welfare and signal the governments goodwill. Education may also be visible in MICs, because it is popular with middle-class voters (Wielechowski, 2019). This has been found in Africa by Stasavage (2005), India by Chaudhuri and Dasgupta (2006) and Mexico by Hecock (2006). Therefore, the fact that education and health increase with political competition in these contexts highlights how incumbents can signal competence through populist expenditure that benefits most voters.

In addition to the intrinsic visibility associated with the construction of schools and hospitals, education and health investments can also be more visible due to outcomes like the amount of employment opportunities they provide¹²¹. For example, Kremer and Holla (2009) find that approximately 75% of education spending in developing countries goes to teachers wages. The fact that political competition increases education spending in contexts where this may lead to less productive outcomes¹²² may also help explain the negative effect education spending has on measures of education attainment in MICs¹²³. High absentee rates particularly within the health and education sectors¹²⁴ may also be explained by these political distortions in the allocation process.

120 I include in the appendix more evidence that this increase in health and education may be driven particularly by democracies.

121 According to Clements et al., [2010], Healthcare and education account for over a third of the public-sector workforce in developing countries.

122 Baldacci et al., [2008] find that the positive effects of both education and health spending are strongly influenced by the quality of governance. In countries suffering from poor governance, the positive effects of increased spending on education are reduced, and those of higher health spending can be completely negated.

123 See for example, Landau [1986], Mingat and Tan [1998] and Flug et al., [1998]

124 See Chaudhury et al., [2006]

Investments in health may also be more visible and become prestige projects via large, advanced hospital facilities (Keefer and Khemani, 2003). They are also believed to be more immediately visible than education investments (Baldacci et al., 2008). My findings of manipulation towards health are in line with most empirical evidence¹²⁵. However, again it is important to note that the relative visibility and targetability of health care spending in these contexts may also help explain why the relationship between increased health spending and mortality rates is weak¹²⁶ in MICs and why it is generally considered to be the least efficient sector of spending¹²⁷.

These findings suggest that further research may benefit from looking deeper within the categories of education and health spending as it is not clear whether this is because these investments contain intrinsically visible construction or whether the jobs and outcomes associated with them are more visible. And Castro and Martins (2018) for example, find that manipulation within education is mainly focused on primary education, which contains significant infrastructure investment and most voters pay attention to. They also highlight how some aspects of education and health can be intrinsically visible and offer quick short-term benefits to uninformed populations.

Social protection was initially believed to be more visible, not in the intrinsic sense, but because it immediately increases voter welfare (Rogoff, 1990, Nguyen and Tran, 2023, Block, 2002). However, there have been arguments that this will not be the case in MICs¹²⁸. This is indeed what I find. And my findings support my initial hypothesis that intrinsic visibility may matter more to the public in these contexts with lower vertical accountability.

125 See Potrafke[2010], Castro and Martins[2016]; Drazen and Eslava[2005]; Klomp and de Haan[2012]; Chortareas et al. [2016]

126 This has been found by Gupta et al., [2002]

127 Ibid.

128 Schuknecht[2000] and Krueger and Turan[1993]

My findings also provide evidence for the argument that many incumbents view spending on defence to be a general measure of status and prestige, which makes it more visible and appealing to incumbents seeking political support (Synder and Diesing, 1977, McMahon, 1991, Dafoe et al., 2014).

The findings of this chapter conclude that both social or economic infrastructure can be visible (Diaz-Cayeros et al., 2016). And that when political competition is high, incumbents increase spending on a wide range of categories to signal competence to several different interests. This is also in line with arguments that public services in general are manipulated for political purposes¹²⁹. These findings also highlight why it has been difficult for studies to identify which category of spending is more visible and further highlights how visibility is a continuum and within many categories like education and health, some aspects like school and hospital construction may be more intrinsically visible than others. Therefore, one explanation for the increased visibility of education and health is traceable to the composition of health and education expenditures. While a breakdown of capital and current components of health and education expenditures is not available, this further highlights the importance of looking further within categories of spending.

In line with significant research that finds that the bricks and mortar and sounds of ongoing construction mean that economic infrastructure investment is more visible to less informed populations, this is what I find. Economic infrastructure is intrinsically visible, extrinsically visible through the jobs¹³⁰ it creates and visible due to its timely, short-run outcomes. But as the findings of this chapter highlighted, this can also be the case for some social infrastructure investments, albeit to a lesser extent¹³¹.

129 See Enkelmann and Leibrecht[2013]

130 it has been argued that more labor-intensive sectors, like construction are more visible[Havlik, 2020]

131 Education spending decreases with political competition in all estimations except for the FE models.

Finally, as I noted earlier, the relative visibility of different spending categories is difficult to ascertain objectively. My assessment is that expenditures in Health, Education, Transportation and Communication and Defence are more visible than expenditures in Social Protection in contexts with low vertical accountability . Although I initially expected that only economic infrastructure would be more visible, the fact that health and education expenditure include capital spending that is associated with intrinsically visible bricks and mortar, makes sense.

In summary, the regression results provide further nuance to the conceptualization of visibility, revealing several departures from conventional theoretical expectations. While standard models suggest that only economic infrastructure is intrinsically visible—due to its physical and immediate outputs like roads and transport—my findings show that sectors with capital spending components across both economic and social infrastructure also increase with political competition. Notably, education and health spending increase significantly under political competition in countries with low schooling, while transport and communication and defence spending also rise in low transparency and press-freedom contexts. This pattern strongly suggests that it is not the functional category (e.g., health vs. roads) but rather the presence of capital-intensive, intrinsically visible elements—like school construction, hospitals, and defence infrastructure—that drives political manipulation. In contrast, social protection, which lacks a physical or capital component, does not follow this trend and even declines in several models. These findings lend robust empirical support to the argument that intrinsic visibility—anchored in physical infrastructure, construction, and employment effects—is a key determinant of visibility in political competition. They also underscore why visibility should be treated as a continuum, not a binary, with capital spending acting as a key marker of politically useful visibility in contexts of weak vertical accountability. Finally, the observed increase in defence spending, traditionally excluded from visibility discussions, suggests that elite-oriented or symbolic capital investments may also generate visibility, albeit to different audiences.

4.6. Conclusion

The somewhat surprising results of this chapter highlight how visibility is highly nuanced and largely context specific¹³². Each public investment component, except for social protection contains both visible and invisible elements and both productive and unproductive projects. However the results are important especially since there is evidence that when expenditures are politically driven, whether this is social or economic infrastructure, this reduces their quality and productivity, particularly in low information settings (Keefer and Khemani, 2003, Sen and Dreze, 1995).

Even though there are arguments that targetability is the more credible mechanism for budget manipulation in developing countries¹³³; it is still important to look at visibility. This is because more recently there are suggestions that incumbents need to rely on both targeting investment towards key interests and also spending on more visible categories to signal their competence to a wider group of people¹³⁴. This is indeed what I find here; I analyze this further in Chapter 5.

These two chapters allowed us to better understand what categories of investment are being politically driven in contexts where this will more likely have a negative effect on economic growth and development. Although, especially for visibility, a range of expenditures can be politically driven in these contexts; it is clear that economic infrastructure is both visible and targetable, and subsequently is the most prone to political distortions and WE. Figure [4-10] shows how transport and communication, increases with political competition in all contexts¹³⁵ with low accountability; suggesting that it is both visible and targetable, but more prone to wastefulness and political distortions. Crucially, these findings can help explain the overinvestment in economic

132 I provide further evidence of this in the appendix where I show that these results may change according to regime type

133 See for example Keefer and Vlaicu[2008]

134 This is in line with arguments by Kitschelt and Wilkinson[2007]

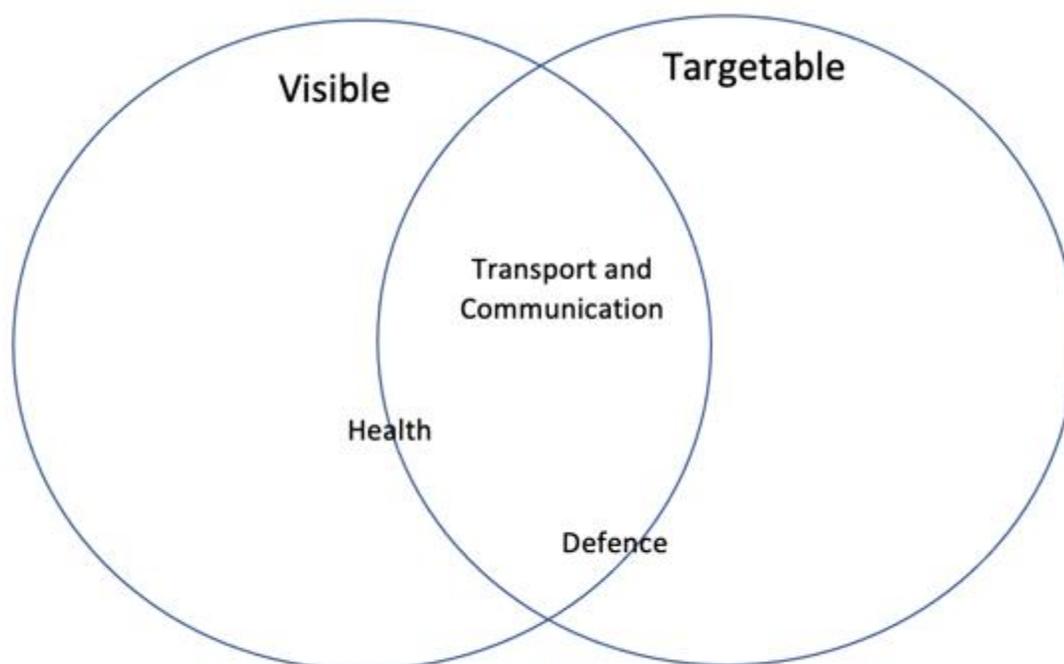
135 And in all empirical specifications

infrastructure at the expense of social infrastructure and proliferation of WE that has been documented in MICs.

These empirical findings demonstrate how economic infrastructure investments can be more targetable and visible in MICs where manipulation is more successful in garnering political support and subsequently more widespread and harmful. When an incumbent has more discretion or the public is less informed, they will bias spending towards narrow interests and intrinsically visible categories which means these investments are more vulnerable to become wasteful, due to these political distortions (Crescenzi et al., 2016, Turro and Penyalver, 2019, Cantarelli et al., 2010). And, theoretically when manipulation is biased towards economic infrastructure this can often result in WE (Golden and Picci, 2008).

My findings also highlight how research on budget manipulation should distinguish between targetability and visibility, because although the previous chapter and works like that of Boulding and Brown (2013) among others find an inverse relationship between political competition and education and health spending, I find that when taking into consideration visibility and low information contexts this is not necessarily the case.

Figure 4-10 The Visibility and Targetability of Different Expenditures in MICs with low accountability¹³⁶



Another important note that arises from my findings and empirical evidence elsewhere is that the distinction between visible and non-visible expenditures is confusing and arbitrary. As I reveal in this chapter some aspects of every spending category, except for Social Protection, includes capital spending and current spending. This and the fact that Castro and Martins (2017) argue that most of the opportunism that occurs within education spending is for primary education, raise an important avenue for future works that explores which aspects within broader categories like health or education are being manipulated for political purposes.

¹³⁶ Transport and communication were visible in 15/15 regressions and targetable in 15/15 regressions
Health was visible in 10/15 and targetable in 9/15. Defence was targetable in 15/15 regressions and visible in 13/15 regressions.
See Appendix for full list of regressions.

The findings of this chapter highlight how low information levels in MIC's make intrinsically visible 'bricks and mortar' projects more appealing for political reasons, regardless of their economic rationale. And in these contexts, information asymmetries are important factors that help explain the manipulation of spending towards these intrinsically visible categories regardless of their efficiency, meaning that performance-based voting is more likely to exist in MICs (Atolia et al., 2017). These findings are in line with Shi and Svensson (2006) and Nguyen and Tran (2023) that spending on economic infrastructure, particularly public projects with high immediate and intrinsic visibility are the most visible and successful at signaling competence.

I also find that health spending is more visible and increases with political competition in these contexts. This shows how political leaders often prioritize healthcare as a key policy issue due to its salience in public opinion polls, voter preferences, and electoral campaigns, which make it more visible. And even though there are arguments that education spending may be less valued and face greater scrutiny and debate due to factors such as varying educational outcomes, complex challenges in education systems, and competing demands for resources across different sectors, I find that it increases with political competition in these contexts.

This is also in line with the findings of Drazen and Eslava (2010) and Albalade and Geddes (2015) that health spending can be visible in many different contexts, and arguments that the public prefer investments that prevent deteriorations to those that increase social welfare like education. My findings contradict these arguments and arguments that education is not one of the public's priorities and is therefore less visible and the government may neglect it (Doner and Schneider, 2016). Instead I find that in line with Havlik (2020), education is sometimes visible.

This chapter also makes it clear that although the previous chapter suggests that Social Protection spending is more targetable, it is less visible. This is also in line with power

resources theory and findings by Abou-Chadi and Immergut (2019) and Kenneth (2007) that highlight the importance of political organization, namely labor unions and political parties 'ideologies', to the degree of social protection spending and its visibility.

Chapters 3 and 4 contribute to the literature by exploring *why, when, and how* political competition can have a negative effect on the allocation of investment. And although I do not actually measure the productivity of these investments; the factors I examined were those that are theoretically expected to increase opportunistic behavior, clientelism and manipulation which degrades the investment effect of resources and reduces its quality and productivity in MICs. And it is clear from the theoretical overview in Chapter 2, that the effect of political competition on the manipulation of investment and the forms it takes is conditioned by several political variables that can make political competition have a distortionary effect on the allocation and subsequently the efficiency of investment. As a result of this distortionary effect, many resources and investments are misallocated, wasted, and can become WE. Many of these factors are common to MICs, which means that these countries are more prone to manipulation and wasted resources, investments, and WE. In this chapter and Chapter 3, I explored the forms that this manipulation will take, when theoretically this manipulation will lead to more harmful outcomes.

But it is important to note that even though theoretically demand side mediators are more associated with visibility and supply side mediators with targetability, these two can often overlap¹³⁷ and poorer, less educated voters will deduce competence from intrinsically visible investment but will also prefer more targeted investments¹³⁸. Therefore, although these empirical chapters contribute towards further disentangling the concepts of

137 For example, according to Alt and Lassen [2006] It is important to note that with regards to transparency, it has been suggested that it is also linked to 'targeting' spending. This is because countries with low-transparency levels are believed to have more veto players which would motivate incumbents to target their spending towards special interests.

138 Voter information can also affect the extent of targeting, as special interest groups can profit from low information contexts to push for and get narrowly targeted policies at the expense of broad services. And 'uninformed voters' were found to be the most likely targets of targeting [Grossman and Helpman, 1996, Armand et al., 2020]

visibility and targetability we still do not fully understand how the mechanism works to increase political support. Therefore, to complement these findings, in the next chapter I explore these mechanisms more closely in the case study where I show *how* these favoured investments can help contribute to an incumbent's survival and popularity and I also show how these distorted incentives can result in these investments becoming wasteful and often lead to WE.

4.7. Next Chapter

These two chapters provide evidence to help build my argument that in MICs, with certain features, economic infrastructure categories are more targetable and visible and therefore politically valuable. This contributes towards explaining the empirical observation of overinvestment in economic infrastructure and underinvestment in social infrastructure that has been described above.

Through a case study in Chapter 5, I supplement my findings that economic infrastructure investment is more visible and targetable in certain cases with a chapter that looks closer at *how* this targetability, and visibility can manifest itself in large scale infrastructure projects that can become WE. This builds further on findings that economic infrastructure investment increases with political competition in low middle income, military dictatorships [like Egypt]. To do this, I analyze several major economic infrastructure megaprojects in a country that has always been plagued with the political manipulation of spending and WE, Egypt. Theoretically, weakly autocratic states with relatively high political competition and low executive constraints like Egypt will have the most harmful budget manipulations (Blaydes, 2011, Shmuel, 2020). This makes Egypt an ideal case study.

I also show how this manipulation can result in a cycle that is very difficult to break. This is based on the argument that in general, in most countries, public investment is path dependent and related to historical pathways and contexts. I also provide evidence of how

this is further reinforced when incumbents put a system in place that protects their rent-seeking behavior via the misallocation of investment (Vukovic, 2019). This is important because it demonstrates how the negative dynamics described in Chapters 3 and 4 can create a status quo bias and reinforce a trap in which these inefficiencies persist, further highlighting why this phenomenon is important to understand.

Through the case study, I also examine how these investments actually increase political support but waste resources by examining several WE projects implemented under different presidents. In Chapter 5 I show *how*, many economic infrastructure investments are both visible and targetable to a narrow selectorate and an uninformed public, which compromises their efficiency and means that many of these projects end up becoming wasteful WE. This approach reveals the distinction between socially beneficial investments and those aimed at prestige or profit and the qualitative nature of the chapter helps explain the process of project cancellations and the importance of project announcements, that are difficult to analyze using only quantitative measures.

So, in Chapter 5, I show how subsequent incumbents indeed used large economic infrastructure projects for political support, because these projects were targetable to different constituencies and were visible to the large, uninformed public. Through a historical qualitative study, I also show how when constituents changed, the nature of these projects changed. I show how in Egypt public investment policies changed in line with who the main constituents are and how the visibility and targetability of economic infrastructure projects and the construction sector in general has made them a key tool for creating and stabilizing patronage networks which the regime relies on for political survival.

It has also already been established that expenditure data in general can sometimes be misleading and should be complemented with in-depth understanding of the specific projects and the general context of spending (Esping-Andersen, 1990, Hacker and Pierson,

2006). In Egypt more specifically, the construction of highways and roads for example involves the Ministry of Transport, the Ministry of Public Works, the Ministry of Labor and the Ministry of Interior in conjunction with private construction companies and different government agencies that are often “off-budget¹³⁹” (Adly, 2023). Therefore in Egypt, merely looking at public expenditure data is not enough, because many aspects may be hidden¹⁴⁰ (Castles, 1994, Blais, 1993).

Therefore, a narrative case study on these projects in Egypt is necessary since most of infrastructure investment is managed through state-owned enterprises or with private partnerships or even completely off-budget (Foster et al., 2022a). And arguments that budget manipulation can take the form of subsidizing the public sector to improve re-election prospects is also something I can examine in a qualitative case study. The data used for the description of each major project has been collected from existing literature, interviews, and media coverage.

Within case process-tracing allows me to follow and analyse changes over time and repeated patterns, and to fully explore multi-causal mechanisms, which is believed to have broader descriptive power. A historical approach is also invaluable in this case since the roots of political outcomes are believed to rest with causal processes that are found in the history of countries (Mahoney and Villegas, 2009). And as I demonstrate, historical legacies can stand in the way of the incentives to manipulate budgets and to provide targeted goods with the inherited structure of the economy being crucial in explaining how politics affects economics (Hall and Jones, 1999). The approach also shows why some countries are more likely to create extractive institutions and waste investment (Acemoglu et al., 2002).

139 Mubarak even redefined his finances so that public sector companies were excluded from fiscal accounts, allowing him to show balanced budgets instead of the actual deficits [Mitchell, 1999]

140 Another more specific example of why a qualitative lens is necessary, is the Aswan High Dam. The numbers show that the regime invested a lot in agriculture between 1952 and 1968; but this increase is mainly due to the building of the dam [Richards, 1980, Verhoeven, 2016] that was actually a political project and a major part of the regimes patronage networks.

Diwan et al. (2020) also underscores the limitations of a purely quantitative analysis, pointing out that because infrastructure investments can backfire in certain economic contexts, a qualitative approach is necessary to fully understand the dynamics of public investment (Richards, 1980). Therefore, a historically grounded case study can explain how different elite interests drive public resource allocation in Egypt and can highlight the characteristics and configurations among relevant actors over time to see whether the current environment reinforces these traps (Perry, 2018). Especially because it is often believed that these configurations of power are decisive, difficult to break and shape the nature of politics (Singh, 2012). This is because the political capacity of an incumbent to make decisions with distributional consequences is believed to be created through episodes of historical interaction with interest groups(Migdal, 1988). And weak political capacity is a historic trait that is self-reinforcing and is very hard to break away from which can create a trap. It is also in line with a commonly observed pattern in autocracies that they are particularly vulnerable early on in their tenure (Bak, 2016). This is something I can analyze in a qualitative case study where I demonstrate how presidents throughout Egypt's history used large scale infrastructure projects for 'honest' political benefits by being able to claim credit and signal competence due to their visibility and 'dishonest' political benefits like buying support through favorable contracts and targeting.

Chapter 5: Case Study: Patronage and Prestige: The Targetability and Visibility of Megaprojects in Egypt from 1952 to 2024

The Great Pyramids of Egypt, the Alexandria Library and the Great Wall of China are all examples of how since the dawn of civilization, leaders have been building political megaprojects (Corey, 2011). These projects build prestige, profits, and patronage and as a result are appealing to the public, elites, and the regime. They convey symbols like power, modernity and development to the public and other countries and create prestige or glory that appeals to leaders (Dudman, 2017). The intrinsic visibility of these massive projects demonstrates performance legitimacy, which signals competence and can create support and obedience of the public, especially in MIC's (White, 2011). In addition to performance legitimacy, they also maintain legitimacy through patronage and targeting (Chabal and Daloz, 1999, Wang, 2022, Beresford, 2015). And they even provide the regime with both moral and financial external support (Corey, 2011). Although sometimes they do fill a functional aspect, their main appeal is the strength, stability and legitimacy they convey, making them particularly valuable politically, but also making them more often than not, underachieve economically (Marsh and Jones, 2011, Ghalib and Serag, 2022). As a result of these political motives, many of these projects rarely generate trickle down effects for the population or contribute to socio-economic growth (Ghalib and Serag, 2022, Mason, 2016). Because of their sheer size and complexity, many of these projects are also usually financed with debt which makes them even more harmful to the economy (Mabugu et al., 2013, Belcaid, 2022, Boccia, 2013, Tsoulfidis, 2007). Therefore the negative effect of public infrastructure on growth and ultimately the MIT can be partially explained by these diminishing returns to WE as a result of these political distortions (Pedersen, 2011, Estache et al., 2005).

5.1. Summary

This chapter builds upon the findings of the previous chapters and further disentangles the distortionary effect of politics on the allocation of investment found in the literature and in previous chapters, by examining the impact of politics on infrastructure investment in Egypt. This contributes towards our understanding of why not all infrastructure projects lead to economic growth. It particularly focuses on the phenomenon of WE – large-scale infrastructure projects that serve more as symbols of power, patronage, and prestige than as drivers of economic development. I argue that successive Egyptian presidents, driven by a lack of electoral legitimacy and inherent insecurity, have pursued these projects due to their targetability and visibility, to signal competence, secure support, co-opt elites and engage in rent-seeking, leading to inefficient resource allocation and wasteful investments. To this end, this chapter disentangles the different political purposes that WE serve, like symbolism, patronage, rent seeking and prestige and traces how Egyptian presidents from Gamal Abd El Nasser to Abdelfattah El Sisi have used different projects to target key constituencies and signal competence to the masses for political survival, often at the expense of genuine economic development. The research design allows me to look closer within broader categories of spending, that I have analyzed in the previous chapters to understand the differential visibility and targetability and the different political purposes different projects within different sectors fulfill.

5.2. Introduction

Theoretically and in my previous chapters, I show how within aggregate spending some categories are more visible or targetable than others. This is what this chapter attempts to investigate more closely by providing a nuanced explanation of how targetability and visibility work to signal competence and buy support, to ultimately understand why many projects often become WE.

In this chapter I focus on economic infrastructure, namely large-scale infrastructure projects because based on the findings of the previous chapters they are believed to be the most visible and targetable types of infrastructure in MICs and more specifically in Military Dictatorships[as I show below]. As I demonstrated in the previous chapter, their intrinsic visibility can create a tangible sense of progress and signal competence and I showed in Chapter 3 how they are targetable to key elites who are often the main base of support in non-democracies, like Egypt. However, in contexts with low horizontal and vertical accountability[also like Egypt], they often become WE that contribute to the MIT(Robinson and Torvik, 2005).

By comparing the major projects announced and built by different Egyptian presidents I show the different ways these projects can contribute to regime survival and the different political purposes these projects can fulfill, that can contribute to their economic wastefulness. I provide further evidence of the findings of the previous chapters and show that, problematically, large scale economic infrastructure projects can do it all, they are visible: signaling competence and wowing the public and are targetable to key elite constituencies by providing preferential contracts and even to some of the public via employment promises¹⁴¹.

My main argument with regards to Egypt is that without electoral legitimacy, authoritarian leaders in MIC's are inherently insecure; they therefore need to maintain their survival and legitimacy by targeting spending to narrow key constituents via patronage and signaling their competence to the malleable public via more intrinsically visible projects. I show in this chapter how both these targets are fulfilled via large scale infrastructure projects but that due to these political motivations these projects often become WE.

¹⁴¹ They are also attractive for foreign patrons and investors, who often play a major role in the development processes of MICs.

The relevance of this chapter is not only in tracing the causal mechanisms suggested previously, but it also allows us to uncover the symptoms and determinants of these unproductive investments. This is particularly important since this political misallocation contributes to the waste of resources, budgetary debt and impedes economic development. And as I demonstrate, these projects foster a cycle where the regime must persist in building these wasteful projects instead of investing in social infrastructure to maintain political support and survival, ultimately contributing to the MIT.

Engels (1976) writes that political economy is a historical science and highlights the importance of utilizing historical and in-depth analyses. Momoh and Hundeyin (2008) also argue that political economy needs to probe into the depth of issues and the interconnection of phenomena and policies. As a result, I utilize a historical case study to do this. In this chapter, I use qualitative data on public project announcements to examine infrastructure projects through political, social, and historical perspectives to dissect mechanisms related to these large-scale infrastructure projects. This allows me to explore the signalling, or visibility mechanism, and the patronage or targetability mechanism and illustrate *how* these mechanisms work and contribute to the construction of WE in Egypt.

I also address some gaps in the literature, for example, contrary to theoretical expectations that economic infrastructure takes time to materialize, reducing its visibility, I show how fast-policy implementation, especially in non-democracies, makes these economic infrastructure projects immediately visible but at higher costs. I also show how the media fanfare and ‘ribbon-cutting’ that come with merely announcing the projects can be enough to give the leader critical support. I also examine the nuanced dynamics of responsiveness, comparing elite and public priorities to understand how these projects are more targetable to different groups, who are important at different times during an incumbent’s tenure.

Building on the findings of the previous chapters, this chapter emphasizes the importance of symbolism, fanfare, and the media in enhancing project visibility by exploring how different presidents attached different values to projects to align with the dominant discourse of the time and I compare the narratives and ideologies of the different presidents to discern the visibility of investments during their tenures. The chapter also analyses shifting support and patronage networks under different presidents to understand how targetability plays a major part in Egypt's WE. The chapter looks at how these infrastructure projects reflect changes in ruling coalitions and state-society relationships, revealing the political settlements and power dynamics underpinning the authoritarian social contract.

Explaining how visibility and targetability can lead to WE or projects that are scaled back, neglected, or fail to deliver on their promises requires a longitudinal qualitative approach, that allows me to focus on project announcements and scaled back projects rather than just completed ones. This long-term view also allows for an examination of how inherited vested interests, a centralized state, and a bloated, inefficient, corruption-ridden public sector have made Egypt an ideal case for the proliferation of WE.

The importance of this case-study lies in the fact that the literature hasn't fully understood why some infrastructure does not lead to economic growth and why WE exist. Because even when these projects fail, they are written off as incompetence and overambition, but research has not investigated the initial motivations for these projects. And although the literature agrees that in Egypt the incumbent has relied on a loyal base of supporters through favoritism and patronage, it does not acknowledge and explain how authoritarian clientelism is flexible and can take different forms, like for example investments.

The chapter is also motivated by the gap revealed within my dissertation itself. The dissertation begins by looking at *why* incumbents misallocate resources and shows that

there is empirical and theoretical evidence that political competition provides the main incentive for misallocation. It goes on to argue that *what* they bias this misallocation towards is visible and targetable categories and attempts via the empirical analysis to decipher what these are. The empirical analysis also highlights *where* this misallocation is more likely to be harmful. Building on this, this chapter looks at *how* certain projects are more visible and targetable, ultimately allowing us to understand how they can be politically valuable, why WE exist and why not all infrastructure leads to growth.

To fill this gap, this chapter looks closely at the misallocation of resources via WE in Egypt, where since 1952 the focus on large scale projects has consumed massive resources, without yielding any real or proportionate economic benefits and drained funds that could have been used for more essential social infrastructure or reducing Egypt's massive debt. This ultimately hinders economic growth and keeps Egypt stuck in the MIT (Tasch, 2015, Mandour, 2023a, Springborg, 2022a).

In this chapter I show why Egypt's current president Abdelfattah El Sisi and those before him have a legacy of 'edifice complex' building highly visible, debt fueled infrastructure projects that 'rise from the desert' to mirror their authority, signal their competence, distribute patronage to key elites and generate nationalist fanfare (Walsh and Yee, 2022, Waterbury, 1983, Kienle, 2001, Ikram, 2018). I show how these projects contribute to the support and subsequent survival of these presidents and I argue that because of the value of these projects in maintaining the support of the elites, the public and the international community, economic development in Egypt focuses on these projects and often uses them as a substitute for policies, believing that they will cultivate the loyalty of elite and broader constituencies by creating jobs and rents, signaling competence and distributing patronage via preferential contracts (Deboulet, 2010, Kienle, 2001, Mabro and Radwan, 1976).

This is particularly important to understand because today, the scale of these projects has become unprecedented (Beblawi, 2008, Waterbury, 1983, Dorman, 2013). And although historically the World Bank and other International Financial Institutions have turned a blind eye to this wastefulness, today even they have started to raise concerns, that these massive, show-piece infrastructure projects are wasting valuable resources, weighing down the Egyptian economy and driving it into the ground (World-Bank, 2021, Fabiani and Hanna, 2023, White and Hawthorne, 2023, Arefin, 2019). However despite these concerns and even though national savings rates have reached historical lows and debt is rampant, stopping these projects is not an option as it could upset core constituents like the military, key business elites and international allies, risking the regime's survival, especially given the regime's declining popularity (Fabiani and Hanna, 2023, Aman, 2014, Diwan, 2023a, Matar and Dernaika, 2022, Al-Anani, 2022). And despite the failure of so many of these projects, these rapidly pursued massive projects continue to be built and presented as panaceas for all social and economic challenges. This phenomenon is not unique to Egypt and exists in diverse contexts from China, to Malaysia to Argentina and is becoming even more problematic with the proliferation of investment states that continue to prioritize large development projects with high private returns but significant social and economic costs (Nabawy et al., 2020).

This chapter therefore seeks to unravel the reasons behind this persistent focus on large-scale infrastructure in Egypt, regardless of project failure. To do this I focus on how the visibility and targetability of these large public infrastructure projects helps to build the prestige and patronage networks of the incumbents and subsequently ensure their survival, which reduces economic growth potential and can be a detrimental waste of resources in a country in desperate need and in dire debt.

5.3. Why Egypt

“Egypt’s main enemy has been Egypt”

- Bent Hansen in Ikram (2018)

The findings of Chapters 3 and 4 that economic infrastructure investment is more visible and targetable in MICs with low horizontal and vertical accountability helped inform my choice of Egypt as a case study. This case study also supplements my findings from the quantitative chapters by demonstrating how the variables¹⁴² tested in Chapters 3 and 4 can indeed increase the distortionary effect of politics on the productivity of investment.

Egypt is an ideal case because it is a country that economists have constantly predicted to be one of the next economic miracles but has never actually lived up to its expectations. It has long presented a puzzle for mainstream explanations, with outcomes often diverging from expectations derived from conventional political economy theories (Wurzel, 2004). Time and time again scholars wonder why, despite a plethora of assets and resources, it has rarely met its potential (Richards, 1991).

Khaled Ikram, an expert on the Egyptian economy once described it as the “slowest train wreck in history”. Although for a while major investments in public infrastructure in Egypt allowed growth and reasonably good social indicators, this progress stagnated at the beginning of the 1980s¹⁴³ (Cammett and Salti, 2018, Cammett and Diwan, 2016). And despite it looking like it was poised for economic take-off at the beginning of the century, the 20th century in Egypt was described as almost a complete failure. The Egyptian political system is believed to be the reason why it is forever mired in stagnation and has resulted in a constant implementation of economic strategies built on sand (Ikram, 2018).

Many of the chronic problems that Egypt is plagued with are believed to be as a result of the inefficiency of its investment (Grigoli and Mills, 2014). And it has been argued that most of the growth has actually been the result of building and not total factor productivity, further contributing to the MIT (Keller and Nabli, 2007, Galal and Selim,

142 for example, I can show how the media plays a role in elevating the profile and visibility of investments [Lopez-Garcia and Heathcott, 2022].

143 Social expenditures in Egypt decreased between 1980 and 2002

2014). And as I show in this chapter, in Egypt today, the consistent development of large infrastructure projects is a clear manifestation of elite capture, corruption and bribery via commissions or the usurpation of public lands.

The regime in Egypt largely conforms to current definitions of authoritarianism like those by Roger Owen, Juan Linz, and Guy Hermet¹⁴⁴. It has been characterized as a Low Middle Income, Military Dictatorship, with elections that are more or less controlled and no real competition. Even political reforms that were meant to liberalize the system have not gone deep enough to threaten the real power of the regime and the state continuously falls prey to special interests who manipulate the regimes policies towards their interests(Farah, 2008). And empirical work has suggested that the public is more responsive to clientelistic than pragmatic appeals when deciding who to support(Wantchekon and Vermeersch, 2005, Harding, 2015, Vicente et al., 2013).

Egypt suffers between foreign aid, the myth of modernity, a rentier economy and various embodiments of neoliberal politics(Deboulet, 2010). It has been described as a non-performing economy with very low productivity and it significantly underperforms in comparison to regional and global competitors(Springborg, 2017). The gap in Egypt between policy and actual performance is believed to be the highest in the region¹⁴⁵. It has a weak private sector, low political legitimacy, limited state capacity, endemic unproductive investments in WE, widespread rent-seeking and an oversized public sector(Collier, 2019). Most public spending benefits powerful political constituents, but has limited economic benefit for the general population(Diwan, 2023b). And since 1952, a major characteristic of Egypt, is its ‘very political economy’ where the simplest economic activity has political connotations(Roccu, 2013). I argue that since then, the domination of political considerations over economic rationality has manifested itself in the government

144 Roger Owen considers authoritarianism to be a political order with highly centralized power, suspect pluralism and in which the regime exercises a monopoly over all legitimate political activity. Linz describes authoritarian regimes as ones with limited pluralism, without guiding ideology, without political mobilization and in which a leader or a small group exercises power within ill defined, but predictable limits.

145 This is according to the Arab Reform Initiative’s Democracy Index

misallocation of resources to enhance its image, “buy” political support and gain legitimacy.

Qualitative work and scattered case studies emphasize how in the region the main function of institutions is to fulfill clientelistic and patronage purposes and not actual policymaking. In line with this, formal institutions in Egypt have acted as channels for elite networking and rent seeking, including the strategic rents from foreign aid which have long supported the Egyptian economy (Springborg, 1975, Richards, 1991, Soliman, 2011). It is therefore expected that there is low congruence and responsiveness between the priorities of the public and those of the decision makers (Shalaby and Aydogan, 2016). Ruling elites continue to write the rules of the game and therefore political and economic institutions have remained extractive and the political misallocation of resources is now endemic, inefficient, inequitable and unsustainable¹⁴⁶ (Galal and Selim, 2014). The use of the state as an employer for patronage and as a vehicle for elite enrichment has further resulted in inefficient and erratic political decisions and wasteful investments (Springborg, 1998, Springborg, 1979, Dorman, 2013, Munro, 1998, Callaghy, 1987).

Like in many MICs, it is widely accepted that in Egypt, the problem is not the lack of resources, but the inefficient politically motivated allocation of these resources (Loewe, 2004). The problem is exacerbated because the regime has an interest in maintaining patterns of spending and biasing spending towards actors upon whom they rely on for political support (Wurzel, 2004). It has generally believed to have survived by creating rents and allowing access to economic opportunities for elites, neglecting the rest of society and then using these rents to sustain order (Weingast and Wittman, 2008, Malik and Awadallah, 2013). This means that any real development is hindered by a pre-occupation by leaders with short-term survival and a subsequent neglect of any long-term development.

¹⁴⁶ For example, even though Nasser improved education, this inefficiency means that the increased supply of presumably skilled labor was not put to productive use [Galal and Selim, 2014]

According to Khaled Ikram, the fragile legitimacy of successive Egyptian presidents can explain its economic troubles. Egyptian presidents are inherently insecure, and even though they seem strong, the strategies they use to stay in power make them quite vulnerable (Goldstone, 2011). This vulnerability and fragile legitimacy have pushed successive regimes to waste resources on buying support. This has decreased domestic resource mobilization in fear of antagonizing the public, which increased Egypt's vulnerability and reliability on foreign pressures, and can also explain a Dutch Disease effect or resource curse. As I show in this chapter, leaders in Egypt create wealth, which they then use to buy off support and punish opponents; subsequently they promote economic development only insofar as it allows them to obtain the resources they need for their patronage networks (Goldstone, 2011). Theoretically in these cases, as rulers become more secure and entrenched they become more corrupt and this corruption becomes more concentrated among an inner circle (Goldstone, 2011). This strategy that entails a continuous enlargement of the cake, requires endless resources that are ultimately wasted and is generally unsustainable.

It is generally accepted by both researchers and the Egyptian public that patronage plays a crucial role in the Egyptian political system. However, what is striking is that in Egypt redistributive policies did not create a specific political constituent, which explains why, as I demonstrate, different presidents easily moved from one main constituent to another (Dessouky, 1982). Regardless of who this constituent is, these policies of appeasement have worked against the strategic and economic goals of the state (Aoude, 1994). This chapter is focused on understanding the extent to which political factors impact infrastructure investment and the provision of large infrastructure projects in the context of Egypt's economy. To this end, this chapter will show how in pursuit of survival, the Egyptian government has mainly implemented short-term survival strategies instead of long-term development planning. Looking at these strategies will help explain the lost potential for economic growth and development that seems to have plagued Egypt.

5.4. Summary Statistics

I further demonstrate in table 5-1 why Egypt is an ideal case. The summary statistics show that it constantly scores on the lower end with regards to all measures of horizontal and vertical accountability that I focus on throughout this dissertation.

Table 5-1 Accountability Scores in Egypt

Variable	1=Lowest score	2	3	4=Highest Score
Transparency	8	19	0	0
Years of Schooling	27	0	0	0
Newspapers Press Freedom	0	24	3	0
Executive Constraints	0	27	0	0
Rule of Law	2	20	5	0
Corruption	0	0	26	1

Table 5-2 Political Competition in Egypt

Min.	Max.	Median	Mean
2	6	2	3.111

5.4.1.1. Military dictatorships

Egypt is classified for most of the period covered in this chapter as a Military Dictatorship. Military dictatorships tend to be more myopic, predatory and short lived than other less ‘personalist’ dictatorships (Bak, 2016). The executive in military dictatorships relies on the armed forces to stay in power and these leaders view themselves as ‘guardians of the national interest’. And Geddes (2005) argues that the

assumption that all rulers want to remain in power may not always be true for military regimes, who might value the efficacy and survival of the military itself more than anything else(Decalo, 1976, Kennedy, 1974). They therefore have weak incentives to develop the country and economy as a whole, apart from the military and are believed to be satisfied by increasing the visibility of spending areas they advocate regardless of their economic value or electoral success(Peterlevitz, 2022). And in general, military dictatorships, due to their nature of consolidation and display of power, have historically been involved in initiating large economic infrastructure ‘prestige’ projects, often in the name of national security and stability. Table 5-3 shows the results of my regression analysis in Military Dictatorships.

Table 5-3 Regression Results: The Effect of Political Competition on Investment in Middle Income Military Dictatorships

	Social Infrastructure	Economic Infrastructure	Social Protection	Transport & Communication	Education	Health	Defence
lag	0.906 ^{***} [0.043]	0.621 ^{***} [0.080]	0.582 ^{***} [0.116]	0.785 ^{***} [0.024]	0.713 ^{***} [0.060]	0.937 ^{***} [0.052]	0.846 ^{***} [0.022]
Political Competition	-0.092 [0.196]	0.256 [0.434]	-0.001 [0.107]	0.385 [*] [0.217]	-0.034 [0.067]	-0.010 [0.165]	0.565 ^{***} [0.139]

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

N=175

Robust standard errors in parentheses

PCSE Fixed Effects Model

In military dictatorships unsurprisingly defence and transport and communication spending significantly increase with political competition, whereas social protection, health and education and social infrastructure in general decrease with political competition. This is in line with the argument that military dictatorships are preoccupied with the prestige that comes with investments in economic infrastructure like transport and communication and in developing the military complex. Military dictatorships also decrease spending on all social categories with political competition, highlighting how they rely predominantly on the support of elites, mainly the armed forces.

With regards to Egypt in particular, I find that the data supports my initial hypotheses, that political competition will increase spending on economic infrastructure and decrease it on social infrastructure¹⁴⁷. See figures 5-1 and 5-2.

147 The coefficients for the regressions are significant

Figure 5-1 The Effect of Political Competition on Economic Infrastructure in Egypt

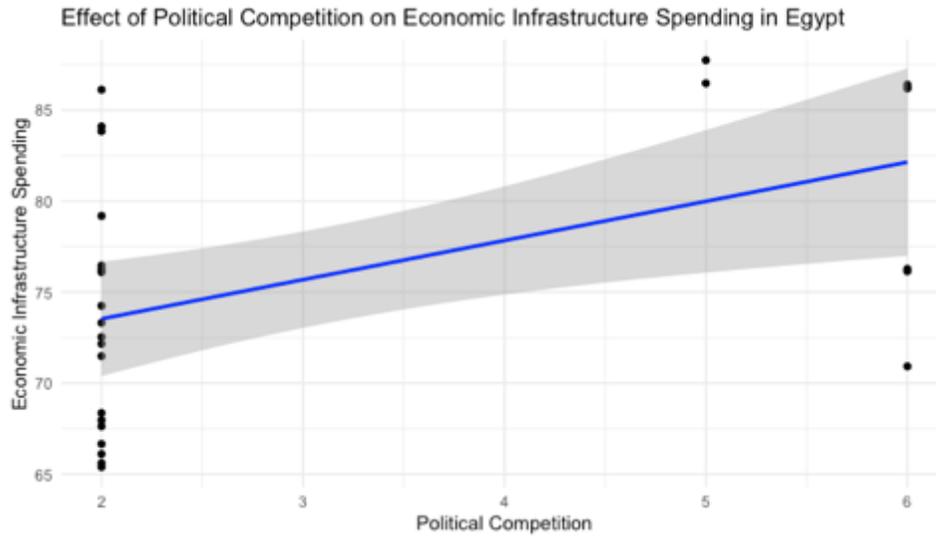
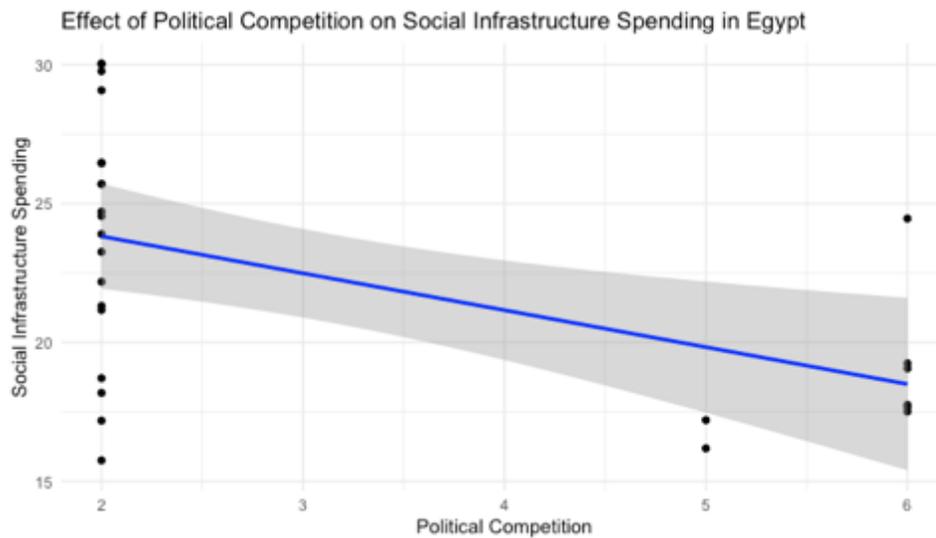


Figure 5-2 The Effect of Political Competition on Social Infrastructure in Egypt



5.5. Argument

I have established in previous chapters that for an infrastructure project to be appealing to incumbents who are motivated by survival concerns, it must be visible and targetable. It can be visible by symbolizing national achievements that ‘wow’ the public, by aligning with the interests of the public and foreign donors and signaling competence. It can be targetable by being a vehicle for distributing material patronage and public employment. Therefore, I argue that large scale infrastructure projects are pursued by opportunistic,

insecure incumbents in Egypt due to their visibility to the public and targetability to key elites, allowing them to secure political support from a broad electorate and special interest groups at the same time. The incumbent can also use these projects to target jobs to the lower classes and signal competence to foreign patrons.

The problem however is that this focus on these visible and targetable large infrastructure projects leads to overinvestment and elite capture that often manifests in WE. This can create a systemic issue where the public sector as a whole becomes wasteful and the leader becomes trapped in a cycle in which they need to keep building these projects to maintain survival, perpetuating a cycle of misallocation and inefficiency.

In summary, the inherent insecurity of Egyptian leaders incentivizes short term survival strategies, often manifesting in increased wasteful infrastructure investment, at the expense of more productive social infrastructure investment aligning with both opportunistic and rent seeking objectives. To support my argument, I outline the major large scale infrastructure projects that have been implemented by different Egyptian presidents and show *how* these projects were very important politically for the regime's survival yet were economically inefficient. Below I outline the main projects.

5.6. Projects

There are no definite criteria that characterizes a project as 'mega' or as a 'failure' since both are relative terms. However, in general megaprojects are viewed as huge development schemes which are particularly ambitious, expensive, difficult to manage and they have a tendency to fail to meet their stated or initial objectives (Schindler et al., 2019, Muller-Mahn et al., 2021). I base my choice of projects in this chapter on this criterion.

Lacking other means to co-opt society and maintain legitimacy, the main ingredient in most of the economic development plans of Egyptian presidents have been massive investments in large economic infrastructure projects (El-Gamal, 2016). This philosophy

that appeals to the government, elites, the public, businessmen, foreign donors and politicians alike is problematic due to these projects questionable rates of return, the sources of their funding, their modest and short term job creating and productivity effects, their increased reliance on foreign capital and the opportunity costs that result from the size of megaproject financing requirements(Sewell, 1987). As I show, they often become WE that build the grandeur, prestige and patronage of the incumbent, without delivering any actual benefits or at least proportional ones, actually hindering economic growth rather than stimulating it(Yahya, 2022, Schrecker, 1984). Their political value results in them being rushed without any proper feasibility studies and they therefore become as I show, embarrassing legacies for many of these regimes(Barthel and Vignal, 2014). Their existence has also created a cycle in which these projects must continue and are very hard to kill or stop and their impact is large enough to be irreversible(Kassim et al., 2018). It is generally believed that in MICs larger projects are more visible(Havlik, 2020).

The selection of projects analysed in this chapter—spanning from Nasser to Sisi—represents the largest, most prominent, and highly propagandized development initiatives undertaken by the different Egyptian presidents. These projects have been widely documented in academia, policy analyses, and media coverage as the most prominent projects of each of these presidents' tenures. They have more recently been described as flagship political initiatives intended to symbolize national progress and political legitimacy(Ikram, 2006, Mitchell, 2002, Sims, 2012). Each project was launched with extensive state-led propaganda campaigns and significant financial investments, positioning them as central to the regimes' narratives at the time. However, their questionable economic returns, underutilization, and long-term fiscal burdens have led to their characterization as WE by scholars, critics, and economic analysts (Mitchell, 2002).

The projects included in this chapter were chosen based on their scale, visibility, and symbolic significance rather than an arbitrary selection of failed initiatives. By analysing

the major projects implemented by different presidents, this chapter provides a balanced examination of the political determinants of these projects. Moreover, these projects stand out in terms of their historical importance and disproportionate allocation of resources, making them the most suitable examples for understanding the intersection of political prestige, patronage, and economic inefficiency in Egypt. The absence of comparable, more successful large-scale alternatives highlights the structural challenges inherent to Egypt's centralized planning and governance (Ikram, 2006, Sims, 2012).

5.6.1. Aswan High Dam

The first of the projects I analyze in this chapter is the Aswan High Dam, that was initiated during the tenure of Gamal Abdel Nasser. Nasser's rule was so focused on personalism and large-scale infrastructure to the extent that his tenure was often referred to as "the great mega-project era". And as I show below, his projects greatly bolstered his popularity, legitimacy and support both at home and abroad, despite their questionable returns (Daef, 1986, Ghalib and Serag, 2022).

The Aswan High Dam was announced on the day the Suez Canal was nationalized in 1956 and since then the name of Nasser became associated with the Dam. It was the most propagated megaproject in Egypt and Africa at the time and was considered to be one of the greatest engineering projects of the 20th century (Hatem and Sherbiny, 2015). It represented a national epic made by Egyptians and symbolized Egypt's dream to build a new, modern independent state and the ability of Nasser to implement national development (Yohannes, 2009). This was a popular rhetoric at the time and appealed to the population. At the time it also sought to symbolically compensate for Egypt's loss of influence over the Upper Nile (Darwisheh, 2023). To the outside world it symbolized Egypt's rational resource management, national strength and sovereignty and the successful role of the state in finding technocratic solutions to socio-economic problems (Waterbury, 1983, Nagarajan, 2013). Crucially, the project also attracted

international attention¹⁴⁸ and aid that Nasser used to build the dam and to mobilize the public, overcoming any domestic opposition(Darwisheh, 2023). However, although the completion of the Dam and its power station in July of 1970 enhanced the image of Nasser, he did not benefit from this as he died a few months later in September of that year(Montada, 2016).

It is important to note that the Dam did have some economic benefits for Egypt, but that due to the political motivations that trumped its economic rationale, it is now widely thought to be a WE due to its massive costs in comparison to its benefits and since political motivations are what drew up the costs for the project. For example, rushing the project so that he could benefit from its completion was believed to have doubled its costs(Rycroft and Szyliowicz, 2011). This was done without any proper feasibility studies which led to the displacement of many people, reduced sediment flow and fertility and many diseases that weren't adequately compensated for by its benefits(Biswas and Tortajada, 2012). Nasser also had several palaces built for foreign dignitaries who were attending the opening ceremony of the Dam, which highlighted how resources were wasted for symbolic and political benefits.

A closer look shows how the Dam had more to do with increasing Nasser's political control and diminishing the power of the opposition and old elites than economic and social development(Dessouky, 1982, Ikram, 2018, Hatem and Sherbiny, 2015). More importantly, and like most of the projects I overview, the Dam was targeted towards key groups and enabled the deepening of the patronage and clientelism that were important for Nasser's survival, in that important businessmen like Osman Ahmed Osman¹⁴⁹ received preferential contracts to help construct the dam(Baker, 1978, Waterbury, 1983, Sadwoski, 1991).

148 because of the relocation of several Egyptian temples is a matter of world heritage

149 In return, Osman provided services and shipments to Egyptian intelligence and built private villas for the Nasser family[El-Gamal, 1992, Waterbury, 1983, El-Tarouty, 2015]

Nasser's main constituents were the military, working class and public sector employees and the Dam focused on endearing him to these constituents. For example, it aligned with his constituent's interest of national pride and was in line with the nationalistic aspirations of newly independent states who equated national planning to self-determination. And the Dam, meant to be financed by the recently nationalized Suez Canal became a symbol of independence and nationalism which made it more visible(Potter, 1985, Moore, 1994). Within its construction it provided the military with preferential contracts, provided the public with jobs, and appealed to farmers and workers by promising agricultural and energy benefits. The improved irrigation facilitated by the dam was also crucial for the success of the land reform policies implemented by Nasser to consolidate his power with new constituencies and break up old ones(Bayat, 1993, Musso, 2015). The redistributed land could -on paper-be more effectively farmed due to the more reliable and extended irrigation made possible by the Dam, making it critical in allowing him to generate new constituents of small farmers and peasants that were loyal to him and to cripple the economic base of the large landowners who were the old elites(Albertus et al., 2018, Brooke and Koehler-Derrick, 2020, Gordon, 1992, Ansari, 1987, Dessouky, 1982).

A new class of state bourgeois also emerged as managers of Nasser's projects like the Dam and they entered into a clientelistic relationship with the regime, in which their shared interests allowed them to accumulate wealth via the High Dam and other projects, despite Nasser's socialist goals(Farah, 2008). The Dam was also a project that suited the interests of some of the old elites who were looking for areas of investment that had secure and high profits(Zaki, 1998) and therefore Nasser still relied on them to implement his development plans like the Dam(Zaalouk, 1989).

Part of Nasser's social contract was linked to the shift in public opinion that took place post WWII from 'peasants' to 'labor', making labor one of Nasser's main constituents. His

vast program of free education that guaranteed employment for high school and university graduates relied on employing them in his large scale infrastructure projects, even if this did not create enough long term jobs, and most of them were inadequate, short-term and low quality(Moore, 1994, Farah, 2013, Darwisheh, 2023). It also resulted in the projects having too many employees that were unnecessary, creating a bloated public sector that was full of redundancies which ultimately impeded economic growth and led to a serious waste of resources(ElTarouty, 2015, Dekmejian, 1971).

Nasser also used the Dam to pit foreign donors against each other. For example, following the withdrawal of Western support for the Dam, Nasser turned to the Soviet Union for assistance. This move was partly motivated by the need for an alternative source of funding and technical expertise for the dam, and partly by Nasser's broader political strategy of balancing between the superpowers during the Cold War (Tignor, 1990). And the Soviet Union's agreement to finance and provide technical assistance for the construction of the Dam was a significant diplomatic triumph for Nasser. It not only ensured the continuation of the project but also symbolized Egypt's growing independence from Western influence (Heikal, 1973). And the Dam became a symbol of Soviet-Egyptian cooperation and a testament to Nasser's policy of non-alignment, which allowed him to gain support from both sides of the Cold War divide.

As a result of Nasser's preoccupation with large projects like the High Dam for his developmental vision and political survival, most resources were redirected out of more productive sectors and the industrial sector continued to lag significantly(Daef, 1986, Kandil, 2012, Ansari, 1987, Megahed and Ghannam, 2022). Problematically, for the broader economy, this focus on these projects also resulted in a bureaucracy heavily staffed by engineers who subsequently had a 'technocratic-engineering' orientation when dealing with almost all its problems(Richards, 1980, Wahdan, 2007, Shehata, 2018). These engineers were focused on building 'objects of patriotic attachment' like the Dam and were chosen based on their loyalty and not competence. They also favored their own

profits and interests at the expense of public interests(Hatem and Sherbiny, 2015). And indeed projects like the High Dam created opportunities for corruption and rent seeking as the private sector acted as a contractor for the public sector and bribery, bonuses, commissions and corruption allowed public sector resources to be manipulated for private gains, but meant that these projects were incredibly wasteful and that Nasser's socialism did not actually produce redistribution(Waterbury, 1983, Hinnebush, 1985, Imam, 1986, Farah, 2008).

The prevalent modernist rhetoric that was about 'development embodied in the new Egyptian man' and independence further glorified the Dam and made it more visible(Hansen, 1965, Shechter, 2008). As a result of Nasser's preoccupation with visibility, feasibility took a back seat and most resources were directed to overstuffed, ill-conceived or ill-timed projects that ultimately failed and even the High Dam which did not completely fail, wasted immense resources and it is widely accepted that its costs outweighed its benefits (Radwan, 1974, Mabro and Radwan, 1976, Waterbury, 1983). And Nasser's decision to speed up construction of the Dam for political reasons, meant that, for a while all the country's resources went into building the Dam, driving up its costs and increasing its opportunity costs¹⁵⁰. As a result, many of his plans failed due to him rushing the projects like the Dam and pushing for as many projects as possible¹⁵¹, without paying attention to their quality, feasibility, or success. And Nasser's development plans ultimately resulted in a number of disastrous projects(Mabro and Radwan, 1976). And through Nasser's projects it was clear that massive misallocation of resources and a bloated public sector resulted in an inefficient public sector(Vandewalle, 1986).

Finally, although the economic contributions of the Dam are questionable; through the project, Nasser was believed to have been able to create and maintain patronage networks that linked the military and elites to the public sector and allocated land to the main base

150 The housing sector paid the price of increased investment on the dam, which decreased by more than 2% annually[Hansen, 2010]

151 The Minister of Industry Aziz Sidqi boasted that they built "a factory a day"[Wahba, 1994]

of his regime: the middle class. With the Dam, Nasser could realize his vision of a public sector as the vanguard of modernization and industrialization to increase employment and to “wow” the public (Megahed and Ghannam, 2022). He therefore used the projects to signal his competence and provide the public with jobs, while also ensuring external support. Therefore, it is believed that Nasser’s projects, mainly the Aswan High Dam are what allowed Nasser to weather crises that came later on in his tenure like the 1967 military defeat, because by then his power was consolidated by integrating key elites into his economic power base through his projects like the Dam (Vatikiotis, 1968).

5.6.2. New Capital

Another popular political infrastructure investment that has been implemented by successive Egyptian presidents is New Capital’s and cities. Nasser attempted to move the capital city in the 1950’s to ‘The City of Revolution’ (Loewert and Steiner, 2019, Elshahed, 2015). It was meant to be a modern city that represented the new, independent ‘modern regime’ and is in line with later president’s attempts to build ‘new capitals’ post revolutions and unrest (Stewart, 1999). The city was believed to symbolize the praetorian character of the regime at the time and was supposed to house important regime constituents like the engineers and technocrats, but it ultimately failed to deliver its promised outcomes and by 1977 remained a “work in progress”.

The project has been deemed a WE due to its failure to deliver economic or social benefits despite significant financial investments. Designed as a political showpiece to symbolize Egypt’s revolutionary aspirations, the project suffered from poor planning, lack of infrastructure, and misallocation of resources. Basic amenities such as transportation, utilities, schools, and healthcare services were insufficient, making the city unattractive and inaccessible to workers who preferred existing urban centers like Cairo (Ikram, 2006, Mitchell, 2002). The promised industries failed to materialize, leaving the city underused, while relocation costs and hardships further discouraged settlement.

The project epitomized the prioritization of political prestige over economic development. During Nasser’s tenure, large-scale infrastructure spending consumed 25–

30% of government expenditures, exacerbating fiscal deficits (Ikram, 2006). Corruption, poor implementation, and inefficiency resulted in low returns and substantial waste, with industrial growth stagnating at 3–4% annually during the late Nasser period (Mitchell, 2002). Although intended to house tens of thousands, much of the city remained empty, unable to address pressing issues such as unemployment, poverty, and urban congestion. Ultimately, the City of Revolution stood as a costly political monument, straining Egypt's economy while failing to integrate into the country's social and economic environment (Olken and Pande, 2012). The project also highlighted how despite proclaimed socialist goals, Nasser favoured military and private elites, and these groups were catered to by the City of Revolution. All this meant that the city consumed immense resources without delivering proportional economic returns (Elsheshtawy, 2013).

5.6.3. Al Amereya

Like Nasser upon coming to power, Sadat wanted to get rid of Nasser's constituents and establish his own; especially because the regime he inherited was heavily connected to the persona of Nasser (Kandil, 2012). As a result, his projects were in line with building his own constituent of the emerging business class, the military and Western aligned elites. And he eventually was able to do this, but only once he had been empowered by the 'legitimacy bonanza' he gained after the 1973 war (Soliman, 2020, Gerges, 2012).

In addition to the legitimacy that empowered him to start these projects, Sadat, not unlike Nasser, relied on his foreign allies to help fund these projects that were integral to his survival. Gulf and US aid¹⁵² at the time funded his large projects that enabled him to maintain political support through their visibility and targetability (Ajami, 1982, Nagarajan, 2013, Kawamura, 2021). And under Sadat, petrodollars were accumulated quickly and wasted on his expensive, unproductive WE, and the Dutch Disease phenomenon that is a result of aid flows¹⁵³ in Egypt began to manifest in large scale

152 According to Ikram[2018] approximately 80% of aid flows after Infitah were for projects and not for the 'real' economy
153 After Sadat's peace treaty with Israel, Egypt became the second largest aid recipient from the US.

wasteful infrastructure projects (Bruton, 1983, Darwisheh, 2023), in the place of more productive projects (DAI, 2012, Darwisheh, 2023).

The secular elites, Western powers, bureaucrats and regime cronies were integral to the planning and execution of his projects and were his key supporters, making them key to his survival (Acemoglu et al., 2018, Shehata, 2018). And the state continued to use these projects to expand its role as an employer, despite this contradicting the logic of his open door policy, coined 'Infitah' (Musso, 2015). The massive state bureaucracy acted as a gatekeeper for the state in these projects and was involved in parasitic activities that led to wastefulness and unproductive projects that Sadat even eventually admitted to knowing about (Ayubi, 1996, ElTarouty, 2015, Hinnebusch, 1993). Sadat also targeted the middle class with these projects by giving them jobs and his large projects were believed to be a means to promote middle class consumerism and subsequently political support (Posusney, 1997, Assaad, 1997, Shafik, 1994, Blaydes, 2011). The military was another key constituent targeted by these projects and the 'National Services Projects Organization' was created at the time to make the military self-sufficient and it became directly involved in running, executing and benefiting from his projects (Ryan, 2001, Kandil, 2012, Brumberg and Sallam, 2012, Kelly, 2020).

The Amereya project was a massive textile complex that was emblematic of Sadat's approach to prestige projects that included significant commissions for state bureaucrats and pomp and ceremony for himself. It was one of his most visible projects that symbolized his alliance with western foreign investors and wealthy businessmen (Ajami, 1982). It was initiated in 1976, the year of the election and was hastily approved in 4 days with no proper feasibility study and was argued to be an unnecessary duplication of another existing textile project (ElTarouty, 2015, Ajami, 1982). However, a closer look at the project shows how it was essential for Sadat's patronage networks at a time when his popularity was waning and right before the elections. Key stakeholders in the military and private sector benefitted disproportionately. The project also created managerial and

administrative positions that were filled by regime loyalists as a form of political patronage. The project is a prime example of how under Sadat the political economy of authoritarianism provided opportunities for the misallocation of resources by giving Western countries a chance to co-opt domestic elites through excessive commissions(ElTarouty, 2015, Ajami, 1982).

The project was also highly visible through the media and was portrayed as a landmark achievement of Sadat's Infitah policy, that symbolized Egypt's transition from socialist stagnation to free-market dynamism and modernization. Propaganda also emphasized the projects potential to create jobs for the youth, which was a highly popular rhetoric amongst high unemployment at the time. Although the project was meant to signal competence and cement Sadat's image as a reformer who modernized Egypt, the project ultimately struggled to fulfill its objectives and was plagued with inefficiency and waste(Aulas, 1982). It is widely deemed a WE since its costs far outweighed its economic returns.

5.6.4. Cities

Sadat's megaproject approach was also focused on desert-development cities that were largely focused on prestige and elite profits(Dorman, 2013). He considered these cities to be a panacea for all ills and his regime embarked on an ambitious plan to build new cities to address various socioeconomic issues(Sims, 2010). The Ministry of Housing was very powerful at the time and was considered to be a colony of elites of the private construction sector(Hinnebush, 1985). As a result, projects were biased towards the housing and construction sectors where regime insiders and investors could get preferable contracts from the government. All of Sadat's cities failed to achieve their intended economic objectives but were highly visible via media fanfare for Sadat himself and lucrative profits targeted to his elites (Ezzidin, 2019).

After the 1977 Bread Riots, like Nasser, Sadat wanted to move the capital city to 'Sadat City'. This was believed to be an attempt to insulate himself and his capital from future

protests(Serag, 2017). Envisioned as an industrial hub and a solution to Cairo's congestion, the city was designed to accommodate 500,000–1,000,000 people but fell drastically short, with the population remaining a fraction of that even decades later (Ikram, 2006, Sims, 2012). Its remote location, 90 kilometres northwest of Cairo, combined with insufficient transportation links, utilities, and social services, made it inaccessible and unattractive to both businesses and workers (Mitchell, 2002). Despite its ambitious proclaimed goals, the city struggled to attract businesses due to high operational costs, weak institutional support, and competition with Cairo, where infrastructure, markets, and skilled labour were concentrated (Sims, 2012). Businesses in the city remained vacant or underdeveloped, leaving much of the industrial zone empty. The project's isolation and lack of integration with existing economic networks highlighted the limitations of politically motivated top-down urban planning. Sadat City's failure reflects its political nature—intended as a political prestige symbol for modernization under Sadat—rather than a practical solution to Egypt's socio-economic challenges. The substantial financial investment in its development became a maintenance burden for the state without yielding meaningful returns, cementing its status as a WE (Ikram, 2006, Mitchell, 2002). Therefore, in line with all previous and subsequent attempts, the city never became a capital and it failed to meet any of its stated objectives and became a city dominated with sand with a mere 150,000 residents(Sims, 2010).

5.6.5. Toshka

Mohamed Hosny Mubarak's tenure was characterized by a continuation of Sadat's economic policies, but with an increased neoliberal focus. Mubarak was highly insecure, possessed a sharp sense of survival and was not interested in any policy discussion with the word 'social' in it, but directly intervened in economic infrastructure investment by personally allocating projects and state assets to favored Egyptian or Arab investors(Kelly, 2020, Kandil, 2012, Nagarajan, 2013).

Mubarak, like his predecessors wanted to get rid of the previous elites, and in the 1990's a new constituent of business elites, or crony capitalists replaced the bureaucratic elites who had dominated until then (Altermann, 2000, Mitchell, 2002). His main constituents were these business elites, mainly involved in construction and real estate, the military and the security apparatus and he relied heavily on these groups to shape decision making, give him legitimacy and ensure his survival (Kandil, 2012, Abdelnasser, 2004). These elites had such a sway on decision making that was believed to be symptomatic of state capture and they helped him maintain his legitimacy by stepping in and providing the social services and any other infrastructure that he neglected. They also funded his presidential campaigns and owned the media outlets that promoted his projects and made them more visible (ElTarouty, 2015).

The role of the military was central to Mubarak's megaproject approach and subsequently to his survival. Mubarak made sure he had the support of the military and kept it preoccupied by giving it massive projects and allowing it to make profits via the vast amount of land it controlled (Acemoglu et al., 2018, Mason, 2016, Ayubi, 1988). This expansion of the role of the military was also part of Mubarak's attempt to get rid of and sidestep Nasser's public sector bureaucracy and Sadat's 'corrupt' private sector entrepreneurs, making many consider the military to be the sole guarantor of the regime's survival-at least for a while (Waterbury, 1983, Ryan, 2001).

The year 1991 marked a shift that increased the potential for and appeal of large infrastructure projects and brought about the second megaproject era. The interaction between donors, the regime and the neoliberal policies that culminated at the time increased patronage opportunities and a new predatory elite emerged. Mubarak's projects favored this state dependent construction sector and appealed to the military at the time, where the private sector acted as their junior partners in these projects (Roccu, 2013, Sims, 2010).

The Toshka project, announced in 1997, was the most propagandized project of Mubarak's regime and was touted as the epitome of Egypt's "New Era of hope". It was resurrected from a 1958 plan [dreamt up by Nasser], that was also discussed under Sadat to create a new Nile valley. It was described in the media as a solution to all of Egypt's problems and as 'Mubarak's pyramid'(Sowers, 2015). At the time it was the most expensive engineering project in the Arab world. However, although it was meant to be completed in 2020, it was shelved in 1999 due to its failure to take into consideration many technical requirements, and ignoring the concept of feasibility(Warner, 2013, Malsin, 2019).

As I showed with other projects, Mubarak was motivated to start Toshka for political reasons. The project allowed him to signal his competence and show that he was working towards solving major social and economic issues. It was highly visible in the media and allowed him to bolster his image as a 'visionary' leader committed to national development, while also allowing him to distract the populace and donors from other political and economic issues, ultimately helping him consolidate his political support. He used the project to signal to the lower classes that he would bring about food security and to the youth that he would bring about housing and jobs. And people were thought to have actually believed his promises due to how monumental and expensive the project was(Warner, 2013). This is like many arguments made about the New Administrative Capital today.

Therefore, despite its failure, the Toshka project allowed Mubarak to capitalize on a positive reputation as a provider of collective goods, which is believed to have delayed youth mobilization till 2011 and to have prevented the mobilization of groups who demanded redistribution. However most importantly, the project provided opportunities for elite patronage, from private businessmen and gulf investors, who-at the time- were key to Mubarak's survival. The government also kept repeating in the media that the benefits of the projects would not materialize in Mubarak's lifetime, which enabled him to capitalize on the early fanfare of the project and relieved him of any pressure to deliver

on its promises. And indeed, although the inauguration of the project received an immense amount of media coverage and photo-ops, its shelving was largely kept quiet (Warner, 2013).

5.6.6. Cities

Urban property developers were among Mubarak's most important constituents. He maintained their support by subsidizing them by giving them cheap land and preferential contracts and then putting up the necessary infrastructure like roads, bridges and highways (Mitchell, 1999). And with his megaproject era came a boom in the building of satellite cities. Mubarak also killed two birds with one stone with this approach by allowing the military to construct these bridges and roads, which allowed patronage and personal profits to be made, while ensuring its loyalty (Fox, 1994, Klebnikov, 2001, Mohiuddin, 2007). He also allowed military contractors to build cities for the officer elites (Mitchell, 1999). However towards the end of his tenure Mubarak decided to sideline the military in his megaproject approach and his satellite cities actually became an attempt to raid the military land and favor his cronies over the officers in the competition over rents (Springborg, 2017, Khalil, 2019). It was clear that Mubarak believed that taking land from the military and allowing his cronies to build their own projects would limit their institutional power while at the same time allowing him and his cronies to reap the benefits of these large projects (Springborg, 1989, Dorman, 2013). And eventually, these cities became a symbol of the corruption of the Mubarak regime (Deknatel, 2012, Shenker, 2011).

For a while, these cities and the highways, bridges and overpasses that connected them helped Mubarak's image of modernization and internationalization, backed by Arab and International aid. And those who were connected to foreign capital became directly linked to the survival of the regime (Ikram, 2018, Roccu, 2013). This made these projects important for Mubarak's image and prestige and was believed by Mubarak to make it more attractive to international investors (Deboulet, 2009, Deboulet, 2010, Dorman, 2013, Dorman, 2009).

Like his predecessors and successor, the idea for a new capital city was proposed by Mubarak in 2007, just as unrest was beginning to grow momentum, but like for Sadat, it was announced a little too late and was subsequently cancelled within 48 hours due to public and international opposition. Building on previous chapters and my main argument, this demonstrates how when opposition is on the rise, increased public scrutiny and accountability can indeed reveal misallocation and manipulation, reducing the malleability of the public, and limiting its success.

5.6.7. New Suez Canal

Abdelfattah el Sisi, Egypt's current president, promises economic development and social justice by way of megaprojects. It is clear from his rhetoric that he believes that the promise of a prosperity that comes with his projects will ensure the loyalty and obedience of the public(Springborg, 2022a). And to a large extent, and for some time, this worked with many members of the public voting for him because of these highly visible projects that appeal to nationalist sentiments and promise to revitalize the economy and provide jobs(Malsin, 2018a, Malsin, 2018b, Flahive, 2017). He also makes sure to coin them 'national projects' to deem any criticism of them 'anti-regime' and describes anyone who critiques the projects as seeing Egypt as 'unworthy'.

His projects rely on the military as the main contractor and several private businessmen like during Mubarak's tenure, as subcontractors. And as a result of his megaprojects, smaller businesses have suffered while many large businessmen have thrived(Springborg, 2017). Many of Mubarak's cronies have been reintegrated into Sisi's projects and patronage networks(Megahed, 2016). These large businessmen not only provide Sisi with political and media support, but they have also been 'forced' to directly fund his projects through the 'Tahya Masr¹⁵⁴ Fund', which despite its proclaimed goal to 'improve the living

154 Translates to "Long Live Egypt Fund"

standards of the disadvantaged', has in practice acted as a presidential 'slush fund' for Sisi's projects(ElTarouty, 2015, Springborg, 2022a).

Sisi's reliance on the military for his survival vis-à-vis other elite groups is one of the more remarkable features of discontinuity of his regime(Sayigh, 2019, Colombo, 2023, Diwan, 2020). He constantly states that he believes that the civilian apparatus would not be able to deliver his 'nationalist megaproject' vision in the speed and way the military does, even if military control of these projects has led to poor economic decisions, since they are believed to be a 'highly entitled', corrupt, rent-seeking institution that only cares about its own profits(Adly, 2016 , Springborg, 2017). This is extremely problematic because ever since Sisi removed the constraints Mubarak had placed on the military's expansion it has become highly autonomous, and even Sisi does not have complete control over it(Adly, 2016 , Ottoway, 2015).

The New Suez Canal was the star of Sisi's 2014 presidential campaign, and he began building it a mere three months after his election. As David Sims described it, for his campaign, Sisi decided to reach into the 'desert development grab bag' and pull out an unprecedented number of both old and new desert schemes and as a result "national infrastructure" became the core of his campaign(Sims, 2018, Keddie, 2015). This very project was shelved twice by Mubarak and was again proposed under Morsi[Sisi's immediate predecessor]. It was meant to be a 35km lane parallel to the original Suez Canal, even though many economists and experts assert that the existing canal is large enough for current traffic(Ghalib and Serag, 2022).

With the canal, the word "new" was used to symbolize a new era of modernity and development and to proclaim a demarcation between his projects and those of previous regimes. It was described as a "miracle" and was presented as a 'futuristic' project like Sadat and Mubarak's highways and bridges. It was described as the 'most important project in Egypt' and 'absolutely necessary' to alleviate its economic and social crises and

to put Egypt among the world leading countries and to show its power and stability to vital foreign partners. In addition to the media campaigns, the opening ceremony of the canal was described as a 'spectacle' that aimed to show the power and grandeur of Sisi and his regime to the public and the world, in a way similar to that of the Aswan High Dam (Mandour, 2023b, Mandour, 2019). It was also described as 'Egypt's gift to the world' (Ghalib et al., 2020, Piazza, 2018a, Piazza, 2018b, al-Bahrawi, 2013). This terminology was continuously used by the regime to help influence the public's assessment of the Canal's value, subsequently increasing its visibility and allowing Sisi to use it for political support (Tasch, 2015, Hafez, 2016, Aman, 2014, Mandour, 2023b). The values that were attached to the Canal, like Toshka and the High Dam were those that appealed to the public at the time and were used to convince them that these projects were necessary. And the project was accompanied by media propaganda that presented it as a solution to all economic and political troubles. Like with many other projects and in line with the feature of Egyptian presidents never 'committing to a date or a number', targets were purposefully left vague and deadlines kept shifting (Ikram, 2018). The media campaign that accompanied the canal, portrayed supporting the project and contributing to it financially as a patriotic duty. This was especially important because the government wanted to rely on investment certificates sold to the public to fund the project. However despite this, the Ministry of Finance ended up having to pay 600 million USD to meet the loan installments and today the project has absorbed around 32 billion EGP that arguably could have been put to better use if invested in other sectors of the economy (Mandour, 2022, Mandour, 2023b, Mandour, 2019, Al-Shuweikhi, 2014).

Although Sisi promised that the Canal would boost the economy and provide jobs, from its onset, experts described these as 'crazy promises' that would never actually materialize (Sims, 2018, Keddie, 2015). However, it did give the regime some breathing space in which Sisi could ignore the needs of the general public and the private sector (Diwan, 2023a). It's timing was also critical because it was announced at a time when confidence was low, making the symbolic "yes we can" that came with it very

politically important(Malsin, 2018b). And like the High Dam, the “new” Suez Canal helped signal to the world that Egypt is a ‘pioneering country’, with a population that rallies behind its president and ‘gets things done’ by implementing his dream projects(Hendawi, 2022, Hendawi, 2023, Cook, 2022). And indeed, to signal his competence to Egyptians and to the rest of the world, Sisi rushed this very visible project. As a result, even though it was politically effective in signaling his competence, he doubled its costs and most of its targets were never reached(Abdel-Latif and El-Gamal, 2022, Mandour, 2023b, Samir, 2015). The jobs that the project promised never materialized and the jobs that did were questionable, short term and low quality(Soliman, 2020, Walsh and Yee, 2022, Ismail and Noueihed, 2016).

By 2016, it became clear that like with previous projects, economic rationality and feasibility were not important and Sisi himself admitted that the actual purpose of the canal was to raise the morale of the public and not any tangible economic returns (Hendawi, 2022). Today it is clear that Sisi mainly used the Canal as a tool to prop up his regime at the beginning of his tenure(Adly, 2023). The canal was not only effective in cementing power via its visibility, but its vision and implementation also included real-estate projects that enabled Sisi to start building his patronage network(Naceur, 2022, Samir, 2015). Today it seems to have been the start of the regime’s pattern of encouraging speculative non-productive investments in massive real estate and construction projects to profit the regime’s cronies and the military(Samir, 2015). And although the canal has ultimately failed, it has enriched the military and a number of large private sector companies that are tied to the regime(Rutherford, 2018a, Rutherford, 2018b).

5.6.8. New Administrative Capital

The New Administrative Capital, hereafter NAC, was announced in 2015, a year after Sisi assumed office and was at the heart of his ‘New Egypt’ and his most glamorous project to date. It was a symbol of his broader economic vision of the country and a continuation of the pattern by previous presidents that is characterized by ‘vanity’ or ‘prestige’ projects that are executed through patronage networks and fueled by the misallocation of scarce

resources. It was supposed to be completed in 5 years, but today 10 years later, it is billions of dollars over budget and years behind schedule and it is believed to be the most dramatic example of Egypt's economic misdirection(Hagen-Smith, 2023, White and Hawthorne, 2023).

Like with similar projects before, the NAC promised jobs, housing and to alleviate all of Egypt's socio-economic problems like over-population and congestion(Metwaly, 2017). However, it is ultimately another prime example of how the regime uses these prestige projects to signal competence and maintain political coalitions and patronage. The ownership structure is divided between the New Urban Committees Authority and the Ministry of Defence and access to land is used to attract foreign investors from the Gulf and China(Adly, 2023). And like with previous projects the investment model relies on the military selling overpriced desert land to private or foreign developers to construct high-end housing. Therefore, it is a symbol of Sisi's desire to support domestic and foreign construction and real estate developers by giving them more business opportunities to make extremely lucrative profits in return for political support. And indeed among those who have profited are the military, and the cronies with close ties to the regime(White and Hawthorne, 2023, Elsheshtawy, 2023).

Sisi's capital and cities in general also benefit the military by allowing it to build roads and bridges to the NAC, that Sisi is constantly being photographed at and they are considered to be among his most visible projects. He is also careful to coin these roads, like his projects as "national roads" to set them apart from other roads and consider any opposition to them, opposition towards himself(Flahive, 2017, Rutherford, 2018a). And conveniently, the Ministry of Housing claims that by calling these projects "national" projects, the public does not need to be consulted on them(Loewert and Steiner, 2019).

Academics realize how Sisi built the NAC to show the world that Egypt is a modern state like Dubai¹⁵⁵. The Capital includes the largest Mosque and Cathedral¹⁵⁶ and the tallest tower on the continent. However, it is believed to be a project to show-off rather than address the needs of the public(Deng, 2022). The site is inaccessible to most of the population(Dunne, 2020) and the cheapest apartment costs \$80,000(Walsh and Yee, 2022). According to Michele Dunne, the capital's 'echoing emptiness' is a symbol of how the general public have no place in Sisi's vision of Egypt, even if the billboards advertising for the new capital describe it as "a City for Everyone" (Dunne, 2020). And today, almost all of the houses and buildings remain empty due to the regime's targeting of a social class that is believed to no longer have the capital to invest(Cohen, 2019).

Many of the initial foreign investors backed out and it is now believed that the Ministry of Housing and the military have taken over. And despite initial promises that it wouldn't cost the state a penny(Hamza, 2014), the state has had to invest massive funds to continue the project(Loewert and Steiner, 2019), placing a direct burden on taxpayers(Walsh and Yee, 2022). The political importance of the project is also evidenced in how many of the cost overruns that plagued the project are thought to be due to Sisi's insistence that the first phase of the city be completed within two years and just in time for the next election(Rutherford, 2018a).

However, the announcement of the NAC should not be a surprise, because it is in line with Nasser, Sadat and Mubarak attempts to move the capital after protests to allow the government to distance itself from future uprising and 'hide from its people behind walls'(Adly, 2023, Serag, 2017, Loewert and Steiner, 2019). The failure of these projects has not impacted the way Sisi boasts about them and casts them as landmarks of his presidency. Sisi described the Rode El Farag Bridge as "the talk of the world", and the

155 The housing minister at the time, Mostafa Madbouly, compared the capital, which would be the size of Singapore to New York and Barcelona[Rutherford, 2018a]

156 For the mosque and cathedral Sisi relied on donations of Egyptian individuals to show community support for the project [Ghalib and Serag, 2022]

largest church as “vital” for the Coptic people in Egypt (Mandour, 2019) and he constantly takes foreign leaders on helicopter tours of the NAC (Lewis and Abdallah, 2019).

However, since 2019 discontent has begun to emerge over his ‘over-spending’ on these projects and today and for the first time he seems uncertain of his survival and to fear for his political and physical life (Yee, 2019, Salem, 2022). In response to this discontent, in 2019 Sisi said “I am building a new capital that the whole world will notice”, adding that those who think this is a waste of money, think Egypt is ‘unworthy’, questioning their nationalism. A large part of Sisi’s rhetoric depends on the “illusion of truth”, where he and his allies keep repeating the same lie many times to make it seem true. And although Sisi continues to insist that the public does not pay for his megaprojects, there is undeniable evidence that these projects are funded by debt, decreasing subsidies for the poor, increasing the price of public services and regressive taxation (Hagen-Smith, 2023). In 2022, Sisi gave a two-hour speech, trying to justify his projects claiming that he wanted all of Egypt to be like the NAC, then said that the way this will be done is that the public ‘won’t eat, won’t sleep and won’t rest’ (Loewert and Steiner, 2019).

The larger problem, as I demonstrated is that the regime has entered a vicious cycle in which the regime needs to continue to build these large-scale projects to generate temporary employment, to signal competence and to maintain the patronage and support of the military and business elites. This comes at great social cost with questionable short-term employment and poverty rising. The regime has also had to reduce subsidies, implement regressive taxation, and increase fees for public services and squeeze the private sector to pay for these projects. And the military has taken over many profitable private sector companies. However, despite these economic costs, these projects help build his stature and legitimacy while enriching his follow officers and cronies, which is vital to sustain Egypt’s neopatrimonial regime at the expense of the rest of the population.

5.7. Discussion

Table 5-4 outlines and discusses the projects I discuss above.

Table 5-4 Summary of Major Egyptian Megaprojects

PRESIDENT	PROJECT	POLITICAL CONTEXT AND COMPETITION	PATRONAGE AND TARGETABILITY	VISIBILITY AND PRESTIGE	POLITICAL VALUE	OUTCOME
GAMAL ABDEL NASSER [1956-1970]	Aswan High Dam Announced in 1956 Construction Began: January 9, 1960 Opening Ceremony: January 15 1971	Limited domestic competition due to Nasser's crackdown on opposition. He was at the peak of his popularity post the nationalization of the Suez Canal. Very early consolidation of power; aimed at modernization image and independence from colonial powers. Pan-Arabism linked regional prestige.	Military involved in Dam construction and logistics; minimal role for private businessmen under Nasser's socialism but were still awarded contracts for supply and peripheral industries like cement. Enabled Nasser to reward military officers and elites.	Framed as national unity effort and direct challenge to Western imperialism. Highlighted in speeches as triumph of Egyptian independence. Media promoted its employment and energy benefits. Was positioned as a "people's project" to align with socialist ideals. Framed it as an achievement for the entire region. Each phase of construction was celebrated with public ceremonies.	Strengthened Nasser's image as leader of independence and modernization. Reduced Western influence in Egypt. Increased Soviet reliance. Described as a project that only a bold and competent leader like Nasser could deliver.	While technically successful; its long-term economic benefits did not match its massive cost. It caused massive environmental and social costs and long-term siltation issues and displacement. Rushing it for political reasons drove up costs. Political urgency to complete the dam meant that long-term feasibility studies were overlooked.
	City of Revolution [Madinat El Thawra] Announced in 1956 Initiated in 1958	Peak popularity. Just won referendum with 99.9% of vote. Used to reinforce the socialist identity against elite/old guard opposition. Symbolize his focus on socialist housing policies and the working class.	Military involved in housing, and roads construction. Used some regime loyalists for cement etc.	Framed as a model for modern socialist housing and a victory for ordinary Egyptians. State media showcased testimonials from working-class beneficiaries and promoted it as a step towards social equality. Propaganda heightened the scale of the project and the speed of its execution. Even cinema included references to these urban transformation projects.	Symbolized Nasser's dedication to socialist ideals, securing popular support from the working-class. Presented as a practical manifestation of the revolution's ideals.	Overcrowding and poor planning led to deteriorating living conditions. The city failed to develop an economic base to support its population. Employment opportunities never materialized. In rush to complete, low quality housing rapidly deteriorated. The project became a symbol of inefficiency and was neglected.
ANWAR EL SADAT	El Amereya Industrial Zone	Rising protests against removal of subsidies and economic liberalization	Mechanism for distributing state resources. Empowered	Media portraying Sadat as a modernizer. Publicized promises of job creation	Demonstrated Sadat's commitment to economic	Poor infrastructure and mismanagement

[1970-1981]	<p>Announced in 1976</p> <p>Construction began in 1978</p> <p>First phase completed in early 1980's</p>	<p>policies. Same year as bread-riots and regional opposition to peace negotiations.</p> <p>Part of Infitah Policy to attract foreign investment. Shift from socialism to capitalism.</p>	<p>private businessmen with land and subsidies. Military contracted for utilities and road building.</p> <p>Military owned enterprises were also involved in the supply of construction materials.</p>	<p>and higher living standards. Promoted as an industrial break-through in speeches and TV. Project framed as a diplomatic success, symbolizing international confidence in Sadat's reforms and leadership.</p>	<p>modernization and private-sector engagement.</p> <p>Positioned as stark contrast to Nasser's-at the time unpopular-centralized economic policies.</p>	<p>limited industrial activity.</p> <p>Industrial layouts not viable for large-scale operations. Limited foreign interest. Jobs were mainly for skilled workers or imported expertise. Much of the area remain undeveloped. This showcased to limits of Sadat's rushed liberalization policies.</p>
	<p>Sadat City Announced in 1978</p> <p>Construction began in 1978</p> <p>Inauguration Ceremony in 1981</p>	<p>Amid decreased popularity. Announcement was seen as a PR attempt to counter criticisms of the regime both domestically and regionally over the peace negotiations with Israel.</p>	<p>Land provided at subsidized rates to businessmen close to regime. Businessmen speculated on property rather than developing it. Military constructing highways and infrastructure to link the city to Cairo. The military also managed large tracts of land within and around the city.</p>	<p>Publicized as a solution to Cairo's overcrowding and a symbol of modernization. Sadat's speeches highlighted its role in industrial expansion, creating optimism about regional development. Propaganda emphasized the projects potential to create thousands of jobs.</p>	<p>Reinforced his modernist agenda and bolstered his image as a forward-thinking leader. Indicated a break with Nasser's legacy. Personal branding to reinforce his authority and public image.</p>	<p>Goals were unmet due to inadequate, poor planning and execution and over-reliance on politically connected businessmen. Land speculation led to underutilized plots.</p>
HOSNI MUBARA RAK [1981-2011]	<p>Toshka Project [New Valley Project]</p> <p>Announced in 1997</p> <p>Construction began in 1997</p> <p>Part inauguration in 2005</p>	<p>Declining popularity; rising internal dissent; attempt to divert attention from economic and political challenges.</p> <p>Facing growing Islamist opposition and youth discontent; megaprojects used to distract from corruption scandals.</p>	<p>Crony businessmen awarded contracts for agriculture and irrigation ventures. These businesses benefited from subsidies. Military handled canal construction and water infrastructure.</p>	<p>State media called Toshka "Egypt's new Breadbasket", promising millions of jobs and agricultural output. Mubarak frequently referenced it in speeches to boost morale. Likened to Aswan High Dam in terms of transformative potential.</p>	<p>To showcase long-term economic vision and Mubarak's alliance with global economic trends.</p>	<p>Became a White Elephant due to overestimated agricultural viability; poor soil and water mismanagement and wasted vast state resources. Inefficient irrigation systems led to significant water loss. Foreign and domestic investors hesitated to commit. Land speculation flourished.</p>

	<p>Cities Announced in early 1980's</p> <p>Completed throughout tenure</p>	<p>Emergency law and sweeping power for presidency.</p> <p>Increasing pressure to demonstrate progress amidst stagnant reforms.</p> <p>Many of these cities were announced at the peak of his popularity.</p>	<p>Subsidized land and industrial plots to Mubarak's allies.</p> <p>Military awarded contracts for road construction which provided them with a stream of revenue.</p> <p>Military sometimes leased land to private developers.</p>	<p>Media portrayed his cities as industrial marvels that will create jobs for youth.</p> <p>Advertised heavily as hubs for new economic opportunities. Solution to Cairo's congestion.</p> <p>National TV showcased projects funded by regime loyalists to promote job creation and housing development.</p>	<p>Aimed to demonstrate commitment to progress and signal his competence and image as a forward-thinking leader.</p> <p>Also aimed to isolate the elite and foreign investors from political discontent.</p>	<p>Focus on housing for elites, overshadowed industrial plans.</p> <p>Infrastructure was underutilized and many areas remained unoccupied. The cities failed to attract industries, adequate services, or infrastructure. Failed to resolve overpopulation.</p>
<p>ABDEL - FATTA H EL-SISI [2014-]</p>	<p>New Suez Canal Announced on August 5th, 2014</p> <p>Construction began same day as announcement</p> <p>Inauguration Ceremony: August 6th 2015</p>	<p>Consolidation of power post 2013 military coup.</p> <p>Focused on projecting stability and signalling competence.</p> <p>No significant electoral competition. Aimed to cement public support by showcasing rapid, visible achievements.</p>	<p>Military controlled project management, securing construction contracts. Limited role for private sector, but some private firms were used as subcontractors.</p>	<p>Media saturation with nationalist messaging.</p> <p>Symbol of Egypt's resilience. Media focussed on one-year timeline for completion. TV coverage of construction progress; positioned as a unifying national project promising economic prosperity.</p>	<p>Reinforced nationalist image; presented as capable of delivering rapid and large-scale economic development. Army man persona.</p>	<p>Completed rapidly for political purposes, but revenue projections were massively overestimated, it failed to fulfil its targets and wasted massive investments. Employment was temporary and low quality.</p>
	<p>New Administrative Capital Announced in March 2015</p> <p>Construction began in mid 2015</p> <p>Partial inauguration in October 2021</p>	<p>Growing discontent over economic policies; efforts to modernize state image and political symbolism of a "New Egypt".</p> <p>Criticism from opposition regarding focus on elite-driven projects amid widespread poverty.</p>	<p>Military awarded contracts for key infrastructure and housing. Military engineering corps led the construction of roads, utilities, and key buildings. Land sold to private developers linked to regime elites, to develop luxury housing, office spaces and commercial areas.</p> <p>Inflated contracts to regime loyalists. High profile collaborations with foreign investors</p>	<p>Extensive media campaign showcasing futuristic designs; employment benefits highly publicized.</p> <p>Tied to high-profile international conferences and events.</p>	<p>Enhanced narrative of modernization and economic advancement.</p>	<p>Design prioritizes luxury over affordability, alienating most of the population.</p> <p>Construction remains incomplete; overreliance on propaganda to cover up feasibility gaps.</p> <p>Government offices still haven't relocated despite 2021 goal.</p>

			were facilitated by regime elites ensuring commissions.			
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As outlined, Nasser began Egypt’s first great megaproject era when he was at the height of his popularity. He capitalized on this popularity to launch highly visible large scale projects, like the High Dam that were mainly symbolic representations of national pride and a newly independent Egypt in line with his authoritarian ‘high modernism’(Vatikiotis, 1968, Ryan, 2001). The Dam was extremely visible, both intrinsically and via the fanfare surrounding it. It wowed the public and signaled his competence and was also targetable through the distribution of patronage and jobs. This ultimately increased his legitimacy and support and integrated various social groups into his powerbase. However, despite the symbolic and political significance of many of his projects, mainly the Dam, they created both employment and projects that ultimately became WE, squandering resources without enhancing productivity.

This is mainly because the political motivations behind his projects meant that they were characterized by a ‘fetishism of growth’, with little attention paid to growth efficiency and feasibility. And his technocratic administrative elites were more focused on execution and personal profits than productivity and efficiency. Rushing them to capitalize politically on the early fanfare also drove up costs and reduced the efficiency of not only the Dam, but many of his other projects. This inefficiency ultimately contributed to the downfall of his economic policies and the erosion of his social contract. And eventually it become clear that Nasser used these projects to demonstrate his strength and independence at home and abroad and to impress the public, leverage foreign donors and maintain essential patronage networks to enable his survival, regardless of their economic efficiency.

Like Nasser’s, Sadat’s projects were seen as efforts to get rid of old elites, consolidate allies and build new constituents, benefiting regime elites and foreign patrons but ultimately leading to resource misallocation, wastefulness and endemic rent seeking(Kienle, 2001, Moore, 1994, Mitchell, 1999, Ayubi, 1988). This misallocation was

made even worse, with *Infitah*, the neoliberal policies that he was forced to undertake as a condition of necessary aid. And the ‘Dutch disease’ dynamic that ensued, resulted in even more WE that enriched the regime-loyal elites who invested in non-productive sectors like real estate and construction (Springborg, 1989, Farah, 2008, Abdel-Khalek and Tignor, 1982, Soliman, 2011, Bromley and Bush, 2007). This set the tone for a different type of WE to come and continued to bias resources away from more productive sectors (Hinnebush, 1985, Tignor, 1990).

As a result Sadat’s projects became flagrant examples of corruption and cronyism and even at times when critical infrastructure and other sectors were deteriorating massively, the grandiose infrastructure and land reclamation schemes continued to be discussed and built, reflecting their political importance (Richards, 1980). As a result, Sadat’s survival strategies, including his cities and megaprojects resulted in a ‘hypertrophy’ of unproductive workers¹⁵⁷ in public sector projects and enterprises and WE (Kawamura, 2021). This created a vicious cycle and endemic phenomenon that last to this day, by which domestic and foreign funds are channeled into unproductive projects, that need to be built to maintain patronage via jobs for the public and preferential contracts for the elites. These projects help the regime earn prestige and pomp and ceremony, by being largely visible, ‘ribbon-cutting’ affairs and help the state bureaucracy earn large commissions, making bigger projects more attractive. They also provide jobs and allow critical partnerships with firms in Western or Arab donor countries. They create an image for a new era of development and prosperity for the public and foreign powers, but ultimately become thin illusions or WE.

Mubarak’s main motto was ‘Nasser liberated Egypt, Sadat gave it peace, and I wish to rebuild it’ and build it he did (Davidson, 2000). Throughout his tenure he neglected health and education but continued to build large infrastructure projects to cater to his cronies and by the 1980’s public investment was extremely inefficient and began

157 As of 1978, according to Handoussa [1983] approximately 50% of public sector workers were considered unproductive

returning negative values by 1984. It continued to be misallocated and resources wastage was rampant, one third of the labour force was surplus to requirements and almost no public sector enterprises were efficient or profitable(Ikram, 2018).

Mubarak's IMF led plans from the 1990's onwards began the second megaproject era which manifested in a building boom via state sponsored misallocation of resources towards economic infrastructure. This benefited his elites significantly and contributed to his survival and personal enrichment(Roccu, 2013, Mitchell, 1999, Joya, 2012, Sfakianakis, 2004). Coinciding with Mubarak's megaproject era in the 1990's, the regime, according to Kelly (2020), now subsidized 'financers instead of factories, cement kilns instead of bakeries and speculators instead of schools'. The forms of patronage that Mubarak relied on, like Sadat made profits for his cronies via preferential contracts and cheap land, with all the necessary infrastructure put up by the state and the military. In return his cronies contributed to his survival by providing the social services and jobs that he neglected(ElTarouty, 2015, Nefisa and Arafat, 2005). However, by the 2000's and with the global financial crisis, Mubarak no longer had the traditional instruments of salary increases and food subsidies to respond to protests and instability with, and the military had also been sidelined in favour of his cronies, so his legitimacy was slowly deteriorating, and when the ruling bloc which he relied on became more fragmented, his demise began(Ottoway, 2015, Roccu, 2013, Beinin, 2012, Bush, 2011). Like with his predecessors, aid was critical for Mubarak's projects and with the Gulf war Mubarak leveraged Egypt's strategic position to get low conditionality aid. As a result, the 'Social Fund for Development' was established to alleviate poverty. However, like Sisi's 'Tahya Masr Fund', the fact that it was run with no autonomy and by public officials meant that it was subject to political capture and manipulation(Nagarajan, 2013).

As a result, Mubarak's tenure was also marked by the manipulation of state resources towards highly visible, targeted investment, particularly in economic infrastructure(Kelly, 2020, Mitchell, 2002, Fahmy, 2007, Kienle, 2001). Mubarak made sure that he could rely

on these projects for support from several groups, and that there was no information or feedback on what succeeded and what failed out of these projects. He used the projects to provide the elites and the military with an easy way to make profits and to appeal to the middle and lower classes through the promises of jobs, regardless of the quality or tenure of these jobs(Keddie, 2015, Hosni and as-Sayyad, 2017, Abul-Magd, 2018). By building these projects early on in his tenure Mubarak created constituents that he could rely on to replace his eventual withdrawal from social spending. His focus on politically driven investment resulted in a failure of his regime to create productive employment, which resulted in WE like workers and ultimately led to the failure of both the private and public sector in Egypt(El-Megharbel, 2008).

Today Sisi seems to have unprecedented levels of megalomania and it seems like his number one priority is megaprojects filled with superlatives that he touts as ‘essential’ to revive the Egyptian economy(Trofimov, 2017, Walsh and Yee, 2022, Mandour, 2019). Sisi’s main constituents include the military, the security apparatus, the bureaucratic elites, and some sections of the business community, especially those who benefit from his large-scale projects and military linked economic activities and are willing to assist the regime with their resources and support in return for a ‘share of the action’(Springborg, 2017). During his tenure he has made-and continues to make- significant investments in large scale infrastructure projects bringing about the third major megaproject era which like his predecessors, aligns his interests in survival with the interests of the elites and the military. Like Nasser’s pattern post revolutions, these projects symbolize national pride and economic ambitions both at home and abroad and are aimed at rallying patriotism and nationalism with a developmental vision.

However, unlike Nasser, it is believed that Sisi’s survival relies solely on the success of his projects and their failure is believed to be important enough to undermine or even destroy his legitimacy. His approach seems inherently nonsensical on its outset and his extremely ‘neoliberal’, nationalist projects that are financed by debt, have made his

developmental vision seem 'preposterous' (Megahed, 2016, Springborg, 2017). Sisi also relies on the military to uphold his survival so much that he has no incentive to mobilize workers, significantly altering the historic importance of public sector employees to the social contract (Ramadan and Adly, 2015). And even though with all his project announcements he claims that jobs will be created, his overreliance on the construction sector creates mainly temporary and low skilled jobs, with most hiring taking place on a project basis. His overreliance on the military also means that most of the labour comes from cheap military conscripts (Colombo, 2023). Sisi also needs aid to continue building these projects that "coup-proof" his regime and ensure his survival by offering his main supporters lucrative deals and allowing the military to continue to dominate the projects and the economy (Springborg, 2023a, Springborg, 2023b, Kirkpatrick, 2015). He has taken out massive loans, sacrificed more productive social infrastructure and dwindled foreign currency reserves to fund these highly visible projects that cement his legitimacy (Walsh and Yee, 2022, Mandour, 2021).

Today it is becoming clearer that many of these projects are creating merely an 'illusion of prosperity' and will become WE that run the economy 'into the ground' (Cook, 2022). And it is clear today, that Sisi's attempts to substitute appeals to nationalism with these visible large scale projects was really just a way to delay any substantial reforms that would actually contribute to development and social justice in Egypt, and just a tactic to give the regime breathing space to cement its legitimacy with key elites, namely in this case, the military (Diwan, 2023b). Despite this spending on these projects, he has invested very little in the productive economy, claiming that he doesn't have enough money, which is difficult to believe given his continued spending on megaprojects, and shows how these projects represent political priorities (Diwan, 2020, Springborg, 2022b). Today it is becoming more apparent that this method can only buy limited time and Sisi's popularity is beginning to fade, ironically because of these very projects (Shalabi, 2015, Springborg, 2017, Malsin, 2018b).

5.7.1. Exacerbating Factors

In this chapter, mechanisms through which intervening variables, examined in the previous two chapters, increase the likelihood and success of misallocation are dissected and examined more closely. I also build on these and identify historical points, such as Sadat's liberalization or aid inflows funding patronage networks, that can be identified as factors that further exacerbate manipulation, by creating moral hazard and Dutch disease dynamics. The chapter underscores how Egyptian president's historical preoccupation with survival and focus on extracting rents from abroad, entrenched elites, and inherent insecurity all contributed to increased manipulation in favour of large-scale visible and targetable infrastructure projects that ultimately resulted in the proliferation of WE (Chekir and Diwan, 2015, Wurzel, 2004, Malik and Awadallah, 2013, Henry and Springborg, 2010, Schlumberger, 2008).

I demonstrated in this chapter how, as shown in previous chapters, corruption exacerbates this misallocation and in Egypt has resulted in cronyism which has led to underperforming public projects and large scale WE via a chronic misallocation of resources (Crain and Oakley, 1995, Henisz, 2002, Rodriguez-Pose and Fratesi, 2000, Cantarelli et al., 2010, Aidt, 2003, Cammett and Diwan, 2016, Said, 2000).

The military's significant role as an elite constituency has also impeded development by contributing to this misallocation. And in line with my arguments in Chapter 3, catering to this military was only possible due to low levels of institutional constraints and rule of law that have plagued Egypt for decades. And various presidents attempts to "coup-proof" via appeasing the military or keeping it preoccupied by allowing it to manage these large scale projects has severely contributed to their inefficiency and reduced productivity (Hashim, 2011, Dorman, 2013, Roccu, 2013, Hassan, 2019, Kechichan and Nazimek, 1997, Rutherford, 2018b, Sayegh, 2022, Abu-Lughod, 1971, Cooksey, 2012).

Another characteristic of Egypt that is present in many similar authoritarian regimes is centralization. The centralized bureaucratic system that is present in Egypt has contributed to the survival and durability of Egyptian presidents but has also allowed leaders to serve narrow clienteles and elites rather than the general public (Richards et al., 2014). And presidents in Egypt believe that only a centralized system can deliver their massive public projects quickly, making them more visible to the public, even if this hinders innovation, development, and efficiency (Deng, 2023, Wahdan, 2007, North and Weingast, 1989).

Egypt's ineffective tax system has also resulted in a dependency on geopolitical rents, trapping the country in unsustainable national debt and resource misallocation cycles (Adams, 1986, Sadowski, 1991, Albertus et al., 2018, Khalil, 2019). Aid flows have undermined the role of foreign direct investment and domestic savings in Egypt's economy, leading to resource curse pathologies (Roccu, 2013, Djankov et al., 2008, Rajan and Subramanian, 2011, Boone, 1996, Abouleinem et al., 2009). This has been the case since Nasser's era and has been exacerbated since Sadat's peace treaty with Israel. This aid is mostly directed towards prestige projects and therefore this large flow of aid supports Egypt's authoritarian survival by allowing it to fund its patronage networks via these large scale projects (Kelly, 2020, Blaydes, 2011, Al-Anani, 2022, Hellyer, 2023, Sayigh, 2021).

Also, in line with the findings of the previous chapters, I demonstrate how the Egyptian presidents' control of media narratives is essential in increasing the visibility of their projects and shaping public perception. In line with theoretical arguments, I show how this control is critical if the regime wants to use these projects to signal competence and as I show, attach desirable values to the projects to legitimize these projects and use them to increase their political support (Jervis, 1970, Collier, 2019, Scambary, 2015, Barberio, 2006). Incumbents are also careful to frame these projects as 'urgent needs' and absolute necessities to solve all of Egypt's socioeconomic problems, which significantly increases their visibility and success in gaining public support (Marsh and Jones, 2011, Mullin and

Hansen, 2022). In line with dominant narratives at the time, I show how Nasser used nationalistic pride to enhance the appeal of his projects, while Sisi adds patriotic and emotive language to nationalistic narratives and emphasizes the role of the military and its 'national' projects to protect Egypt and enable its growth and development(Wahdan, 2007, ElMeshad, 2016, Megahed and Ghannam, 2022, Megahed, 2016). Sadat and Mubarak used more neoliberal narratives that highlighted modernity and 'futuristic', 'international' projects(Arefin, 2019). They made sure to highlight that Egypt's problems come from it being 'unmodern' and this sentiment has been highlighted in media and presidents discourse since then(Tarbush, 2012). These projects also always get high media attention and early fanfare, with 'ribbon-cutting' especially important, whereas the scrutiny or their potential and actual results hardly get any media attention, due to the governments' control of the media.¹⁵⁸(Mehra, 2019, Phan, 2018).

The demand for employment that is also prevalent in many MICs including Egypt also exacerbates patterns of patronage politics, which leads to inefficiencies and manipulation in the provision of public investment. This is problematic because employment has been found to be a particularly valuable clientelistic exchange since it is a targetable and reversible channel for redistribution and it ties the utility of the public to the success and survival of the incumbent(Stokes et al., 2013, Robinson and Verdier, 2013). This is especially the case in contexts with high inequality and unemployment, where ancillary benefits such as providing jobs for constituents is the sort of activity for which politicians in low-information societies can easily take credit for. Like roads and buildings, in MIC's jobs are easily targeted and highly visible. And although in developed countries these jobs are often in health and education sectors, in developing countries, as I showed it may be more politically rewarding to give jobs to unqualified people who have fewer other job opportunities and therefore owe a greater debt to the incumbent than highly qualified people. This means that the low quality jobs associated with construction and economic

158 It is even argued that Sadat's projects did not contribute to his survival enough because the media in the 1970's wasn't as powerful as today and therefore did not make his projects visible enough to allow him to use them for his survival[Salem, 2022, Sayigh, 2019]

infrastructure will be preferred by these incumbents (Keefer and Khemani, 2003). As a result many labor intensive¹⁵⁹ economic infrastructures are preferred by incumbents seeking political support (Alesina and Drazen, 2011). These jobs not only make the investments visible but are also directly targetable to key constituents like the youth and working class, especially in contexts with high unemployment and inequality (Alesina et al., 1997). Therefore, in MICs where there is usually a narrow, uninformed selectorate, the selectorate will value more targeted investments that are intrinsically visible, this contributes to the proliferation of wasteful WE. This explains this pattern I find in this chapter.

5.7.2. Sectors of Investment

In addition to showing how certain contextual realities can exacerbate misallocation, this chapter also allowed me to disaggregate spending further. As a result, I was able to show how within categories discussed in the previous chapters, some facets are more visible and targetable than others, making them more tempting for opportunistic incumbents.

I showed in this chapter how the construction and real estate sectors were a magnet for overinvestment due to their targetability and visibility. They enabled rent seeking and profit making and their predatory potential has been long established (al-Jaly, 2017, Arefin, 2019). Awarding land contracts to elites is a strategic method used by all Egyptian presidents to sustain political support and patronage. These projects that become ill-advised, political WE are goldmines for the government and its elites. However they are also used to target lower and middle classes with jobs or at least promise jobs in that the government constantly highlights that the construction sector is very labour intensive, constantly lying about the number of jobs these projects will provide and leaving out how short-term and low quality they are (Samir, 2016, Hagen-Smith, 2023, White and Hawthorne, 2023).

159 Spending on construction of roads and bridges would generate more than twice as many direct jobs as the same amount of spending in any of the other sectors. Construction of water and sewage infrastructure is the second most job-intensive activity relative to spending while transport and communication is the least job-intensive activity [Freund and Ianchovichina, 2012]

The construction sector is very intrinsically visible, making it tempting for any leader who wants to leave their mark in history books(Diwan, 2023a). The sector is used in Egypt to showcase the military's strength, to manufacture hope and to create symbols of a modern and independent Egypt. As a result, the construction sectors intrinsic visibility and the media fanfare, ribbon-cutting and photo-ops that come with it make it visible and it can be relied on to create popular support. Therefore, the construction sector is tempting for any leader who wants to legitimize their rule and consolidate their power, but due to these political motivations, it can fail to address the countries underlying economic problems and lead to decreased efficiency and productivity(Cingano and Pinotti, 2013). And according to Transparency International's Bribe Payers Survey, construction is the sector with the highest propensity of paying bribes to officials and other firms.

Within the construction sector and as I demonstrated in previous chapters, transport infrastructure is also popular to uphold support. As a result, Egyptian presidents have constantly presented roads and bridges as panaceas for all ills. They have relied on their intrinsic visibility and used them to fulfill their modernist developmental narratives, but they have also used them to target the military with contracts and profits and to encourage their cronies to build more cities and make more profits(Dorman, 2013, Terrill, 2021). The 'high modernism' that is associated with many of these transport projects captures the minds of authoritarian rulers by displaying their strength, competence, and stability and therefore they are highly linked to the prestige and survival of the president. And according to Sims(2018), the Egyptian regime constantly legitimized itself by filling the media up with fanfare on its roads and highways (Scott, 1999, Marsh and Jones, 2011, Richards and Wilson, 2016). Highways have generally been believed to enhance the legitimacy of incumbents by signaling their competence, despite the fact that they have been deemed the most elitist and destructive type of infrastructure project(Loftman and Nevin, 1996, Deboulet, 2010).

Also, within the construction sector, especially post liberalism, real-estate development has become a classic case of WE. And as I demonstrated the regime has favored this sector because it has a greater ability to influence it than other sectors and it is considered to be a crony sector that offers opportunities for corruption through the large commissions it includes. As a result, housing projects are purely political in Egypt and seem to be the governments answer to reconcile the desire for political support, prestige, modernity and rent seeking. And each of Egypt's presidents in the last 9 decades has associated himself with at least one large scale housing project, despite their terrible track record with them(Matar and Dernaika, 2022, Blaydes, 2011, Shawkat, 2020, Shawkat, 2022).

These housing projects and new cities are also linked to the obsession of Egyptian presidents with desert reclamation as a symbol for a new modern Egypt(Sims, 2010 , Elsheshtawy, 2013, Elsheshtawy, 2023). However, as I show, the government is only interested in developing the desert and building these cities as a means of funding construction projects, and these projects reveal the workings of authoritarian privilege that has been operating in Egypt since 1952. The projects largely benefit the elites who are linked to the state and whom the state relies on for political support. They also reflect the autonomy of the military, a key constituent and are allowed by presidents to be built to keep the military satisfied and occupied and to contain 'any broader political ambitions'. As a result of these political motivations almost all these projects have failed and have taken resources away from more productive sectors and fixing existing infrastructure. They have channeled scarce funds and domestic savings into 'dead capital' and waste one of the state's most important assets: land(Adly, 2023, Dorman, 2013, Sims, 2010 , Sims, 2018).

However, as I demonstrated, land in Egypt is political and crucial for regime support. Giving or withholding land in Egypt can either buy the loyalty of supporters or punish opposition, either way consolidating power. The regime uses land to pit important

constituents like the military and cronies against each other and these new cities and projects reflect patterns of how politically connected elites can get land cheaply and then build housing units to sell off at a profit. Through this, large commissions are made, and patronage is maintained. This patronage driven character of this process is further evidenced in the bankruptcies that developers often face and several high-profile scandals over access to public land. These projects and schemes are plagued with corruption and the chiseling of land-based favors and patronage networks which can explain why most of these projects fail and become WE. As I showed above many of these cities have become either ghost towns or playgrounds for the rich and not a single target for them has been met. Nonetheless, these cities and new capitals are politically valuable and even if they are economical failures, as I demonstrated they serve fundamental political purposes.¹⁶⁰(Weiss and Wurzel, 1998, Corey, 2011, Mason, 2016, Hamdan, 2019, Ramey and Shapiro, 1997, Musgrave, 1990, Elsheshtawy, 2023, Lewis and Abdellah, 2019).

5.8. Conclusion

Building on the findings of previous chapters, this chapter continues to explain the appeal of large-scale economic infrastructure projects to opportunistic incumbents in specific contexts, like Middle Income, Military Dictatorships, where these projects are both visible and targetable. The chapter unveils the dynamics of authoritarianism and patrimonial privilege, illustrating how these projects connect elites and the public to the state in different ways over time, serving as instruments for regime survival. The chapter also demonstrates how these projects were at times strategically employed for geopolitical purposes, pitting elites and donors against each other to reshape or entrench power hierarchies and ensure political survival. Furthermore, it explores how these visible projects were utilized to signal the competence of the regime, instill nationalistic pride and commitment to economic development and show the ability of the regime to ‘get things done’. The longitudinal nature of the chapter also sheds light on the strategic timing of projects that despite being initially largely visible, were often quietly withdrawn,

¹⁶⁰ Even more problematically as I demonstrated, remittances, aid and foreign investment have also been attracted to this sector

scaled back, or halted. I show how the intricate interplay between rent-seeking businessmen and politicians, bribe-taking bureaucrats, a susceptible public, and survival-oriented regimes is a recipe for severe misallocation and disaster in Egypt by showing how large-scale infrastructure investments helped Egyptian presidents maintain political support and survival via their visibility and targetability. As a result, many of these projects become vanity or prestige projects that mainly aim to win support and patronage and become wasteful WE.

It is clear when looking at the 3 “megaproject eras”, the 60’s, the 90’s and post 2014 that there is a pattern whereby to a large extent, large megaprojects were built by these regimes, not when they were unpopular but when they had cemented their power and popularity. For example, with Nasser and Sisi’s ascendance to power, post revolutions they each undertook significant nationalist projects. All presidents began to build satellite cities after they had consolidated their power to some extent with the public, via more populist giveaways. They then used these cities to target and build a narrower constituent. It is also clear that at times of protest and instability, when public scrutiny is heightened, announcing large infrastructure projects exacerbated instability further, especially when these protests were later in a president’s tenure. This can be because there is more scrutiny of these projects, which increases accountability and subsequently the public know they are being manipulated. There is also some evidence that presidents start these projects as populist measures and rely on the wow factor and the promised jobs, and by the time the wow factor fades away, they begin to rely on the patronage and support of the elites. This chapter provides substantive evidence that these projects tended to make the presidents more secure politically, but eventually more detached from the masses, emphasizing how these presidents prioritized elite support.

Throughout Egypt’s history, these projects have hindered productivity and widened the disconnect between Egypt’s need for capital investment and its ability to generate it. And it is clear, that in Egypt, the proliferation of WE and the failure of large-scale

infrastructure projects is no inhibitor. And every president wants to keep building more, while openly rejecting the concept of feasibility, to the extent that it is widely believed that Sisi's rhetoric in support of these projects actually increases as their failure mounts(Sims, 2018).

With Sisi, like his predecessors, these projects initially helped him build his legitimacy through their visibility and symbolism and showing that the government could 'get things done'. The projects also allowed him to monetize and securitize state owned assets to cement his major support bases both at home and abroad through patronage networks, making larger projects more appealing(Adly, 2016). As a result, patronage depends on strategic relationships with the regime and is focused on land-based construction projects that take on the character of highly visible prestige projects. Further related to visibility, the projects are also utilized as symbols of modernization, to demonstrate progress and assert Egypt's regional and global stature and to attract foreign investment and aid. They can pit key constituents and foreign donors against each other to cement power and help get rid of old constituents and create new ones.

The interests and influences of these different constituencies shaped the nature and outcomes of these projects. And looking at these projects can help us understand the political make-up of the regime as investments in these projects have been indicative of the regime catering to and targeting elites with rent seeking opportunities(Dorman, 2013, Gakenheimer and Brando, 1987, Springborg, 2017, Springborg, 1998, Springborg, 1989). And I showed for example, how the regime has used these large-scale infrastructure projects to misallocate public resources for political support to these elites with vested interests in the construction and real estate sectors. I also show that because of the commissions and preferential contracts, the bigger the project, the more attractive it is for opportunistic elites(Boas et al., 2014, Colombo, 2023, Chen and Neshkova, 2020). And historically, I demonstrate how the state has aligned its capital investments with elite interests, but that these elites have ranged from the military, bureaucrats, public sector

managers, party officials and crony-capitalists(Khalil, 2019, Waterbury, 1983, Adly, 2013, Dorman, 2013).

These projects also facilitated the distribution of patronage to key elites who support the regime, and jobs to the public. Although these projects are used mainly to target patronage to the elites, I demonstrated above how the creation of jobs via these projects is a common and favored method of patronage due to its low cost compared to other methods(Asaad, 1997, Barsoum and Abdalla, 2020, Handoussa, 1983, Coate and Morris, 1995, Galal and Selim, 2014). And these jobs have been critical for public support and regime survival in Egypt by ensuring that employees feel invested in the regime's continuity(Altermann, 2000, Blaydes, 2011, Al-Ississ and Atallah, 2015). However, the problem is that using these projects, that promise employment and the abnormally large bureaucracy for political ends results in low quality, artificial short term questionable employment and overemployment and as a result not only are the projects wasteful, but the public sector as a whole becomes wasteful(Morsy et al., 2015, Alok and Ayyagari, 2020, Glaeser and Ponzetto, 2018). This approach also works against the goal of mobilizing savings for investment in productivity and meaningful job creation, thereby turning employment and the public sector into another form of WE. They visibly signal competence by demonstrating action against unemployment and economic stagnation whether this materializes or not because the public in Egypt is malleable. They also as I showed give temporary breathing space when needed, to delay more politically sensitive reforms, especially since they promise quick and visible results.

So, as I showed in Chapters 3 and 4, economic infrastructure investment is both visible and targetable in MICs with low horizontal and vertical accountability. And in this chapter, I showed how this visibility and targetability is politically valuable and can contribute to political survival yet compromises the efficiency of these projects. Together these chapters show that ultimately the problem is that these large-scale infrastructure projects, do it all, therefore they become a magnet for overinvestment, and WE

proliferate. They fulfill different functions for different leaders at different times, making them an endemic phenomenon that is very hard to get rid of.

Chapter 6: Conclusion

6.1. Summary

To understand the puzzling reality that not all investment leads to growth, especially in MICs, this dissertation analyzes the political determinants of investment. Empirically, political allocation can lead to distortions and inefficiencies via both over and underinvestment and is an issue that plagues MICs and keeps them stuck in a trap. By contributing towards our understanding of why countries overinvest in some sectors and underinvest in others, the findings of this dissertation can contribute towards explaining the misallocation of investment and the proliferation of WE¹⁶¹. This misallocation and the WE that ensue have plagued MICs and are both among the most cited explanations of the MIT. They have also continuously been blamed on the ‘distortive’ effect politics has on spending allocation when accountability is low. Therefore, to understand why investment is misallocated one must take a step backwards and look closely at *how* politics can shape spending.

As I describe in Chapter 2, the misallocation of spending is believed to be an opportunistic strategy that incumbents can implement to increase political support. However, only a handful of works focus on what categories this manipulation is biased towards and they do so mainly as a response to elections, in developed democracies. Theoretically, this manipulation will be towards categories that are valued by potential supporters. Categories that are valued are those that are visible or targetable; but the literature has failed to empirically determine what is more visible or targetable. This is because it has failed to recognize that targetability and visibility are not intrinsic traits and instead they vary in different contexts. For example, it is generally believed that narrow targeting will only take place if institutional constraints are low and corruption is high, because only then will the incumbent have the discretion to target spending

¹⁶¹ The proliferation of White Elephants is believed to be the canonical example of the misallocation of investment

towards narrow interests. I argue that in these contexts, when political competition increases, survival-oriented incumbents will be able to narrowly target spending to elite constituents and that in these cases economic infrastructure investment will be more targetable.

It has also been argued that economic infrastructure will only be more visible in cases where the public relies on intrinsic visibility to deduce competence. Theoretically these are contexts with information asymmetries, low transparency, and low media freedom. I argue that when this is the case economic infrastructure will also be more visible. By demonstrating how and why political competition increases economic infrastructure investment in certain MICs, I can also contribute towards explaining the bias towards economic infrastructure and away from social infrastructure that seems to be a theme in MICs.

Problematically, the aforementioned features-that make economic infrastructure more targetable and visible- are also those that theoretically mean that political competition's effect on investment will more likely be distortionary and that these investments are more likely to be wasteful. This is because these features reduce the accountability that mitigates the harmful effect political competition can have on an incumbent's myopia and manipulation of spending. This suggests that it is fair to assume that these are the forms of investment that are more likely to become inefficient and wasteful. And although I do not empirically test the efficiency or wastefulness of these investments; theoretical wisdom assumes that in these cases the effect of politics on spending will be 'distortionary' and in many cases, WE may be created.

In line with my theoretical predictions and observed overinvestment in economic infrastructure in MICs, my findings indeed suggest that political competition increases spending on economic infrastructure in MICs where theoretically this manipulation will be more harmful. I argue and provide evidence that this is because in these contexts these

investments are both visible and targetable, making them particularly appealing to political survival motivated incumbents.

I build on these findings with a case study that demonstrates how this causal link operates and shows empirically how the visibility and targetability of certain investments can indeed increase political support. By doing this, I add a further layer to my empirical findings by demonstrating *how* the political motivations that push incumbents to invest in certain economic infrastructure projects [due to their visibility and targetability] may mean that these projects become wasteful¹⁶². As a result, I can provide empirical evidence of this ‘distortive’ effect politics can have on the provision of economic infrastructure investment.

Finally, this dissertation sheds light on the politics of public infrastructure investment to contribute to the inconclusive literature on the MIT. It is motivated by the recent findings of an unclear, often negative, and confusing effect of infrastructure on growth, especially in MIC’s. Throughout this dissertation, I explain theoretically and provide empirical evidence that politics, namely political competition shapes the allocation of investment and go on to demonstrate how, when, and why *theoretically* this may compromise the productivity of these investments. In Chapter 1, I present the puzzle that motivates my research and identify gaps in the existent literature, in Chapter 2 I outline the main theoretical and empirical literature that informs my argument. In Chapters 3 and 4 I focus on the contexts that reduce accountability and therefore shape targetability and visibility respectively and contribute to the wastefulness of politically driven investment. And in Chapter 5, I complement my findings with a case study that demonstrates *how* visibility and targetability can contribute to political survival, yet waste resources and subsequently create WE. As a whole, I provide evidence that in certain MIC’s social investments are underprovided due to their low targetability and uncertain visibility,

¹⁶² According to Wright[2010]; Stolfi et al. [2015] and Cavallo and Daude[2011], increased spending that is driven by politics or elections is inherently inefficient.

which reduces their appeal to opportunistic incumbents. The opposite is true for economic infrastructure investments, and I find evidence that economic infrastructure investments are more valuable for incumbents seeking political support when political competition is high. I argue, and demonstrate with a case study, that this is because they are more targetable and visible in MICs with low accountability, where theoretically political distortions are likely to create wasteful projects.

6.2. Background and Motivation

Investment in public infrastructure – of which economic infrastructure is a significant component of – was for a long time seen as an important driver of economic growth¹⁶³. Consistent with this, policy advice¹⁶⁴ and many development programs rely heavily on investments in economic infrastructures such as transportation and communication to promote economic development and foster convergence in MICs. And indeed, as a result MICs exhibit a large bias towards economic infrastructure projects; however recent research has found a negative effect of ‘overinvestment’ in economic infrastructure in these contexts (Baum et al., 2020, Mogues, 2015). Many of these investments have recently been deemed inadequate and wasteful (Foster et al., 2022a). And today ‘appalling’ levels of inefficient economic infrastructure investments have been found in many MICs (Bohn, 2004). As a result, investment misallocation, that is characterized by both under and over investment has been recognized as one of the main problems hindering economic growth in MICs and keeping them stuck in a trap¹⁶⁵. Instead of promoting development and convergence, this overinvestment has created a plethora of prestige projects or WE that waste resources and divert them away from more productive categories (Robinson and Torvik, 2005).

163 see, Sturm et al. [1998]; Romp and De Haan [2007]; Melo et al. [2013]; Bom and Ligthart [2014]

164 The World Bank, for instance, allocated around 20% of its aid in the mid 2010’s to transport infrastructure, a share that is larger than that devoted to social infrastructure including health, education, and social services combined [Crescenzi et al. 2016]

165 This is documented by Hall and Jones [1996] and others who find that there is a large gap in the efficiency of infrastructure between developed and developing countries.

Theoretically, it has been argued that resources are biased towards these wasteful projects because they contribute to incumbents political survival prospects (Robinson and Torvik, 2005, Bohn, 2004). And it is becoming increasingly accepted that within the decision to allocate resources towards the construction of wasteful projects and WE, political rationality prevails over economic rationality (Brida et al., 2006, Haan et al., 2007, Estache and Fay, 2007). This highlights why the allocation of investment needs to be examined through a political lens; especially because in MICs, more research is finding that incumbents lack the political incentive to invest in socially and economically beneficial infrastructure and many rational economic decisions are 'distorted' by politics (Warner, 2014, Pontes and Pais, 2018). This 'distortionary' effect is theoretically only believed to result in wasteful investments when accountability is low (Gottlieb and Kosec, 2018, Bohn, 2004).

This misallocation is biased towards categories or projects that are politically valuable due to their visibility and/ or their targetability. This is because these theoretically wasteful projects are only thought to improve survival and re-election prospects when they are visible and targetable to key groups. And Robinson and Torvik (2005) even argue that these projects have to be economically and socially wasteful to become credible instruments for political support.

I argue and provide evidence that in certain contexts, economic infrastructure investments are targetable to key groups of elites and are therefore not only useful in garnering political support but are also conducive to rent seeking. This makes economic infrastructure investment a form of inefficient redistribution that has also been acknowledged by Coate and Morris (1995) and Lizzeri and Persico (2001). Therefore, many instances of misallocation have been attributed to targeting investments towards specific elites to increase political survival prospects. This narrow targeting is only believed to take place when institutional structures allow incumbents discretion over spending instruments.

It has also been acknowledged that for many incumbents, especially in MICs, whose reputations rest on their ability to signal their competence and point towards ‘development’, there is an additional incentive to favor intrinsically visible infrastructure projects. In these contexts the intrinsic visibility of these projects can help an incumbent signal their competence and subsequently garner political support (Nugent, 2018). This will only be harmful for development when the population is less informed and the media is less free (Bartels, 1993, Veiga et al., 2017, Fu and Cooper, 2022).

Therefore, in this dissertation I argue that in contexts with low accountability, an investments targetability towards key groups and intrinsic visibility can derail its investment effect and risk it becoming a WE. Theoretically, this is based on the argument that while politics can distort the allocation of investments away from the most productive uses, accountability will mitigate this distortionary effect, by making sure that political competition imposes a check on the ability of an incumbent to successfully manipulate the budget towards more visible and targetable yet wasteful projects.

Based on this logic, my main argument throughout this dissertation is that although career concerns can be beneficial for the economy, in some cases they can be detrimental. As argued by Barro (1973), political competition can have a disciplining effect on policy making and spending, by inducing effort and responsiveness and making it harder for an incumbent to engage in rent seeking. The problem is that this is not always the case and in some instances it can induce myopia¹⁶⁶ or a ‘short-term bias’ in spending decisions (Aidt et al., 2003, Raveh and Tsur, 2017). When this is the case it can induce pandering, via spending on categories that are visible (Maskin and Tirole, 2004), or it can induce targeting when an incumbent is able to narrowly target spending to key

¹⁶⁶ In models by Alesina et al. [2010] and Persson et al. [2000] political myopia is a function of political competition.

elites(Enikolopov, 2014). When possible, this will be done for political support, regardless of the necessity or efficiency of these investments. Therefore, whether career concerns will have a positive or negative effect on the allocation and efficiency of investment will depend on how much accountability there is from institutions that limit the ability of an incumbent to narrowly target investments and how much accountability there is from the public which will limit the ability of an incumbent to signal their competence via more visible investments.

To test this argument, in Chapters 3 and 4, I focus on the contexts in which these politically motivated investments are ‘theoretically’ more likely to translate into wasteful projects and in Chapter 5, I look closer at *how* these politically allocated investments can often become WE that waste resources and contribute to the MIT. By doing this, I empirically demonstrate how this manipulation contributes to political survival yet may waste resources. This is motivated by the fact that the political effects of massive infrastructure projects that are used for political purposes cannot simply be read off from their surfaces and therefore it is necessary that I complement my quantitative analysis with a case study that looks deeper into the dynamics and nuances of megaprojects in a case mired with resource misallocation, Egypt(Chalfin, 2008, Harvey, 2012).

So, while my quantitative chapters enable the testing of my hypotheses across a broad dataset, yielding generalizable patterns of politically induced investment biases, my qualitative case-study delves deeper into a specific aspect—Egypt's WE—to illustrate the theory's applicability and uncover nuanced dynamics. In this sense, the quantitative analysis offers breadth, captures cross-country variations, and establishes a broader understanding of the phenomena. And the qualitative case study adds depth, bringing rich, contextual insights that illuminate the mechanisms and causal complexities that shape the observed trends uncovered in Chapters 3 and 4.

This mixed methods approach supports both the testing of my theory and its further elaboration by providing empirical evidence from both quantitative data and qualitative narrative descriptions. A qualitative lens is necessary to open the black box of public investment, that could not be revealed fully in the quantitative chapters. For example, within categories of infrastructure like transport and housing for example, there are some more socially beneficial investments and others that are usually merely for prestige and profit, like highways to expensive cities and flashy transport projects like the monorail versus more affordable public transport and housing. A qualitative lens also shows how even though in general economic infrastructure investment projects in the PBC literature have been described as irreversible, it has happened time and time again in Egypt and elsewhere, that an infrastructure investment project is cancelled, scaled back or neglected after its announcement or after work starts on it, so through the longitudinal method of the case study, I was able to demonstrate how projects are scaled back and compromised from initial plans resulting in WE (Cugurullo, 2018). This also helps explain why looking at the announcements of the projects is as important as looking at the results, since many of these projects are described as politically motivated “PowerPoint projects’ that don’t necessarily materialize (Moser and Cote-Roy, 2020).

To summarize, this dissertation is motivated by the fact that there is evidence that the desire to enhance political support can induce upon survival-oriented incumbents a measure of accountability but may also make them more myopic. The former effect is positive, but the latter effect is mixed. Which effect takes shape will depend on factors that shape horizontal and vertical accountability, and this is what I analyze in my quantitative analysis. After I establish which categories incumbents bias spending towards when theoretically this effect is more likely to be distortionary, I complement my findings with a case study that demonstrates how these investments may indeed be more visible and targetable and therefore political rewarding, but how these political motivations may hinder the economic efficiency of these very investments.

6.3. Findings

Recently with the rise of wasteful investments and the increased prevalence of WE, it has been highlighted that investment inefficiencies arise because of political distortions. This is because in many cases investment decisions are driven by politics instead of the most productive uses (Manescu, 2022). This has highlighted why studies that attempted to understand the negative effect investment has on growth that focused purely on economics and finance, failed to reach any substantive conclusions. The main aim of this dissertation is to therefore fill this gap and to understand why many MICs overinvest in economic infrastructure at the expense of social infrastructure, regardless of the necessity or efficiency of these investments. Therefore, to contribute towards understanding this puzzle, this dissertation has used a mixed methods approach to analyze the political determinants of public investment allocation in MICs. Understanding this allows me to explain why the high economic contribution of certain categories of investment seems to coincide with a relative neglect of them and vice versa.

In Chapter 1, I outline the puzzle that motivates my research which is over and underinvestment in certain categories and subsequent wasteful WE that plague several MIC's today. This along with the fact that the MIT is attributed to inefficient allocation of investment highlight the relevance and importance of this work. Since this inefficient allocation is blamed on overly politicized investment allocation and project selection; I focus on the role of politics.

In Chapter 2, I overview the literature and empirical evidence on the politics of infrastructure investment, to understand the political determinants of public infrastructure investment allocation and composition. I start by considering the incentives faced by politicians who are subject to career survival concerns and I argue that *how* a government invests its resources will be shaped by its probability of remaining in office which can be captured using measures of political competition. This is because the allocation of resources and who gets what, will depend on political competition,

making the degree of political competition the key link between incumbents and investment policies. Based on the literature review, I argue that incumbents are opportunistic and want to remain in power; therefore, to increase political support, they bias spending towards categories with more political value when political competition is high, and they feel more insecure. I argue that categories with more political value are those that are more targetable and visible to key constituents, but that due to differences in degrees of accountability, visibility and targetability are not intrinsic traits and differ in different contexts.

I focus on MICs, not only because they are understudied, but also because it is generally believed that the public investment process is more robust and insulated from political distortions in advanced economies that are mostly developed democracies. This means that even though research has previously focused on these developed democracies, the scope for manipulating public investment to enhance political survival possibilities via targeting spending is lower in these contexts than in countries with weaker institutions. Also, in advanced democracies there are less information asymmetries which means that the public is more likely to punish the manipulation of spending towards more visible investments. And finally, in advanced democracies incumbent governments have other means to signal their competence and do not need to signal them through spending manipulation towards more visible categories as predicted by Rogoff (1990). This means that certain characteristics of MICs make them more able to manipulate the budget successfully and waste resources by doing so. Specifically, when the public is less informed, and subsequently more myopic, they rely on intrinsic visibility and as a result, large economic infrastructure projects can be more visible. When the incumbent is subject to less institutional constraints and there is more corruption, these same projects can become targetable to a narrow elite. These are the contexts I focus on.

Theoretically, the level of accountability from institutions will determine if an incumbent can target investments towards narrow interests and the level of accountability of the

public will affect whether they rely on intrinsic visibility to deduce an incumbent's competence. In Chapter 3, I empirically test the effect of political competition on the allocation of public investment to show *how* this manipulation takes place in MICs with low horizontal accountability. I add further nuance by focusing on the *targetability* of different categories of investment.

And in Chapter 4, building on Chapter 3 I continue to look at the contexts that should theoretically mean that politics will distort the allocation and productivity of investment and empirically test this in MICs with low vertical accountability. This allows me to observe what forms political investments are most likely to take with regards to visibility. This means that Chapters 3 and 4 allow me to provide theoretical clarity and empirical contributions to the debate on the visibility and targetability of different categories of investment in MIC's. This contributes towards understanding the political determinants of over and underinvestment and the political allocation of investment that often plagues MIC's.

Throughout this dissertation, I find that the allocation of investment is indeed driven by political competition and that in MIC's this is mostly the case with regards to economic infrastructure investments. This is because as I demonstrate in chapters 3 and 4, when incumbents have more discretion, or the public is less informed, incumbents increase the more visible and targetable category of transport and communication spending[where WE are more prevalent] as political competition increases. These findings can contribute towards explaining the proliferation of WE that are driven by political motivations yet have negative implications for growth and development.

Although I do not directly test the efficiency of these investments, it is generally believed that political competition will only lead to favorable outcomes when there is more accountability from institutions and governance structures or from the public. In chapters 3 and 4, I find that economic infrastructure is more appealing to incumbents

who are less constrained and populations that are less informed. I also look deeper within the categories of spending to provide further nuance.

The reason why I look at separate groups within MICs is because it is logical to assume that all incumbents will prefer to narrowly target their spending, but not all of them can do so. It is also reasonable to assume that the bricks and mortar associated with economic infrastructure means it is more intrinsically visible in all contexts, but it is clear that it is not effective in garnering support in all cases and in some cases, an incumbent is punished for ‘electioneering’ when biasing spending towards more visible economic infrastructure. Therefore, the ability of an incumbent to target investment to a narrow elite, and the extent to which the public will deduce competence from intrinsically visible investments will depend on several contextual characteristics that will theoretically determine whether political competition will have a negative effect on spending. These are the contexts I am interested in.

Unless these contexts are understood, it will be difficult to explain when and why some investments are unproductive. As a result, I argue that in different contexts insecure incumbents will target the budget towards different categories. This is what I explore and find in Chapter 3, where I provide empirical evidence that when an incumbent has more discretion, they indeed target spending via increasing economic infrastructure investment, which is believed to be particularly targetable to elites and narrow interests.¹⁶⁷

And through the empirical analysis, I find that economic infrastructure investment is indeed more visible and targetable in MICs. Although not all the findings are significant, from my results it can be argued that transport and communication¹⁶⁸, defence and to a lesser extent health investment¹⁶⁹ are more targetable, because they are the categories that

¹⁶⁷ See Demarest[2021]

¹⁶⁸ Turro and Penyalver[2019] posit that in the transport sector, White Elephants are particularly relevant due to the vast number of resources involved in large-scale infrastructure projects and to their long lifecycle

¹⁶⁹ According to Mesquita and Root[2000] ruling elites are believed to prefer more military spending than citizens to bolster the regime’s repressive capacity and maintain the military’s loyalty

tended to increase when incumbents had higher discretion or there was more corruption in MICs. And social infrastructure in general seems to be less targetable in these cases which may explain why it might be neglected to a certain extent. In contexts with low rule of law I also find that education increases with political competition, this is also in line with arguments that education spending-mainly within primary education- can sometimes be used to target elites¹⁷⁰.

To a large extent, these findings are in line with arguments that insecure incumbents will prefer not to spend on coordination goods like education, which may result in increased opposition towards them in the future¹⁷¹. On the other hand, increased spending on defence when political competition is high is logical when an incumbent is subject to less institutional constraints because this increased spending can increase the regime's repressive capacity and ensure the military's loyalty and support (Mesquita and Root, 2000). It has also been argued that increased defence expenditure can be politically valuable in that it increases employment (Whitten and Williams, 2011).

These findings lend support to those of Keefer and Knack (2007), that countries with low quality governance will have higher investment in economic infrastructure. In line with Kyriacou et al. (2019), I argue that when these governance indicators are low, instead of being aimed at stimulating economic growth this investment will be implemented for political purposes like winning elections or garnering political support. This is because when corruption is high and rule of law or executive constraints are low, incumbents can target investments towards more clientelist categories that are favoured by narrow groups of elites. This logic is also used to explain the proliferation of WE projects (Robinson and Torvik, 2005). And it is also in line with arguments by Gottlieb and Kosec (2018) that when investment is more prone to elite capture, it is more likely to be targeted towards economic infrastructure and away from education. My conclusions and findings build on

170 See Hecock[2006] and Stasavage[2005]

171 This is in line with arguments by the Chicago political-economic school and the barriers-to-entry qualification of it

those of previous works that have examined the impact of governance variables on the efficiency of public investments in health and education (Hauner and Kyobe, 2010), transport infrastructure and redistribution (Kyriacou et al., 2019). It also builds further on works that have identified supply side variables like government quality as a key conditioning factor that explains the negative or nonlinear impact of economic infrastructure investment in economic growth (Crivelli and Gupta, 2014, Crescenzi et al., 2016).

In Chapter 4, I build upon arguments by Rogoff (1990), that information asymmetries allow incumbents to manipulate investment towards more 'visible' categories for political support. The fact that when voters are more informed, investment is more efficient and productive is well established according to works by Drago et al. (2014), Nannicini et al. (2013) and Besley and Preston (2002). It is generally believed that information asymmetries give rise to overinvestment in visible categories and inefficient outcomes (Mogues, 2015). And I find that when voter information and transparency were low, incumbents indeed biased spending towards intrinsically visible investments, like transport and communication and defence to signal their competence. But I also, interestingly, find that health and education often increased with political competition in contexts where the public is less informed. This may be because it is generally believed that health and education spending contain significant construction spending (Vortherms, 2019). This also more or less confirms arguments that less informed voters prefer intrinsically visible, tangible benefits while programmatic investments and transfers are less appealing.¹⁷² (Geddes, 1996, Walle, 2007, Stokes et al., 2013). However, this draws attention to the fact that a closer look within the facets of health and education spending is required.

¹⁷² More accountable governments have also been found to focus more on social issues [Cusack, 1997; Ferejohn, 1999; Rios et al., 2013]

My findings that health and education can sometimes be visible in these MICs with more information asymmetries, highlight how these categories are highly nuanced and contain many different facets, some of which are broadly visible and some of which are narrowly targetable.¹⁷³ More importantly Chapter 4 highlights that incumbents will pursue a combination of strategies, some will be aimed at narrow interests, but some may be broader efforts to signal competence to broader groups and bolster public opinion (Magaloni et al., 2007). This is also in line with Kitschelt and Wilkinson (2007) who argue that incumbents will use different strategies and different investments to build support.

The findings of chapter 4, that education and health are visible; whereas social protection [the prototype targetable investment] is not, also highlight the visibility versus targetability trade-off and how they are not the same. Here I observe that incumbents prefer to focus on visible categories of spending when the public is less informed or the media is less free, than targetable categories. This is because all aspects of investment that have a capital aspect are tangible and easy to showcase and they are also symbolic and signal competence. In line with my findings, I argue that these investments are particularly important in signaling competence when the incumbent faces limited accountability or scrutiny from the media or the public.

Another important finding is with regards to the different empirical specifications utilized. When comparing the models with and without a lagged dependent variable; health spending was the only category of spending that had a different response to competition depending on the specification utilized. The fact that political competition affects health spending differently depending on whether past spending is controlled for could imply that health budgets are adjusted more dynamically in response to immediate political incentives, while other spending categories are less sensitive to such adjustments

¹⁷³ A school, for example, may be a broad public good, but the contract to build the school clearly benefits specific interests

or follow smoother trajectories. This is interesting, as it highlights the distinct nature of health spending in political manipulation, where it may be both a target for short-term political gains and constrained by ongoing budget commitments. In all regressions the difference in the responsiveness of health investment with and without the lag, highlighted how health spending is politically valuable and initially increases with political competition, but then eventually decreases. This is interesting because it suggests that this spending may be wasteful, since health spending typically requires sustained investment.

Unlike economic infrastructure investment, the observation that social categories [like health, social protection, and education] respond differently to political competition depending on the model specification suggests that these categories may be more sensitive to variations in empirical assumptions or model structures. Social spending often involves more discretionary, politically sensitive budgetary decisions, which may vary more by country, year, and institutional characteristics, making it responsive to both unobserved [fixed] and observed [random] effects.

In contrast, economic infrastructure categories like defence and transport and communication respond consistently to political competition across models. See Figure 4-10. This suggests that as hypothesized political competition exerts a more robust influence on these types of spending, because infrastructure and defence investments are both visible and targetable. The consistency across specifications indicates that these expenditures are less affected by methodological variations and are more politically driven. This finding could suggest that economic infrastructure spending is a more straightforward tool in political competition, while social spending is more complex and context dependent.

Together, the findings of Chapters 3 and 4 make it clear that in some contexts, with characteristics that are prevalent in MICs that reduce accountability, economic

infrastructure investment, proxied by transport and communication, can be both visible and targetable and therefore particularly prone to manipulation. This, according to Robinson and Torvik (2005) and Geddes (1996) can make it more likely to become socially and economically ‘disastrous’ and can help explain the proliferation of WE in MICs. And my dissertation provides empirical evidence that in these MICs economic infrastructure investments are more visible and targetable so allow insecure incumbents to kill two birds with one stone, by overinvesting in potentially wasteful projects when political competition increases to increase their political support. So, while vertical accountability and horizontal accountability operate through two different channels—the former increases investment in more intrinsically visible categories, and the latter diverts it towards more narrowly targetable categories—in both cases, theory predicts that they are related to investment inefficiency. And I find that there is empirical evidence that often, economic infrastructure investment is more visible and targetable, making it particularly prone to misallocation. The empirical implications of this are that in these contexts, incumbents have acquired a distinct taste for visible and targetable large economic infrastructure investments that run a greater risk of becoming WE, that are unproductive and wasteful since they are primarily driven by politics. One of these contexts where economic infrastructure investment is more visible and targetable is Egypt.

In Chapter 5, I utilize a narrative case study to show how this process works in practice and how it can contribute to political survival, yet waste resources. And although the actual productivity or lack thereof of different types of investment is beyond the scope of this dissertation; I can shed light on how politics can shape the allocation of spending in the contexts where theoretically this effect is likely to be ‘distortive’. The case study builds upon the previous chapters by highlighting the *why* and *how* to explain the causal complexity and to empirically substantiate the findings of Chapters 3 and 4. And in Chapter 5 I supplement my findings with a qualitative, longitudinal case study of a country that is mired with misallocation of investment and WE and a prime example of a country with wasted potential that is stuck in the MIT. These politically motivated

‘prestige’ projects are overwhelmingly being constructed in authoritarian MICs in general and in Egypt in particular. So, to help explain this phenomenon further I do a deep dive into a number of these prestige projects and look at how their visibility and targetability make them attractive for opportunistic incumbents seeking political support.

Through the case study, I provide qualitative evidence of the appeal of large-scale economic infrastructure projects to opportunistic incumbents in a context where they are both visible and targetable. To do this, I look closer into the dynamics of authoritarianism and patrimonial privilege, illustrating how these projects are targeted towards elites and subsequently connect them and the public to the state in different ways over time, serving as instruments for regime survival. I also show how these projects were made more visible and therefore utilized to signal the competence of the regime, instil nationalistic pride and commitment to economic development and showed the ability of the regime to ‘get things done’ at different ‘critical’ moments in time. I show in this chapter why larger projects were often more appealing in contexts like Egypt’s due to their targetability and visibility, namely the symbolism, fanfare and patronage that accompanies them and because of the commissions and preferential contracts that they create and the fact that they strengthen patronage networks (Adly, 2016). Looking at Egypt in particular is important because Egypt today is becoming a crucial site for the West’s new development agenda that is focused primarily on economic infrastructure development (Sial, 2024).

In the case study I am also able to demonstrate how the interplay between rent-seeking businessmen and politicians, bribe-taking bureaucrats, a susceptible public, and inherently insecure, survival-oriented incumbents is a recipe for severe misallocation and disaster. In this sense I could highlight how the ‘revolving doors’ between political actors and businessmen in Egypt whereby politicians holding high office are subsequently appointed to executive positions in large government projects, increases the inefficiencies within these projects and risks them becoming WE but also increases their political

appeal. This is in line with findings by Albalade et al. (2018) and has been found to result in WE in a number of contexts, from the Philippines to China.

Adding a further layer to my quantitative findings I show that because of these political motivations, many of these projects became vanity or prestige projects that mainly aim to win support and patronage but become wasteful WE. And what is interesting, is how the failure of large-scale infrastructure projects seems to be no inhibitor and every president wants to keep building more, while openly rejecting the concept of feasibility; to the extent that today it is widely believed that Egypt's current president Sisi's rhetoric in support of these projects increases as their failure mounts.

The case study also produced some interesting findings with regards to the appeal of large-scale economic infrastructure projects that warrants further attention. For example, I demonstrate how in Egypt some patterns are revealed. For instance post revolutions, nationalistic megaprojects and new capitals emerge as important pillars in the rhetoric of "nation building" (Ghalib and Serag, 2022). The revolutions give strength and garner international attention and aid that is then harnessed by the state to create these projects, that then aim to attract further foreign support and investment and domestic fascination and prestige. This highlights a further aspect of targetability that includes foreign investors that I do not look at in this dissertation. It also emerges that at times of protest and instability, announcing large infrastructure projects exacerbated instability further, especially when these protests were later in a president's tenure. This may be because there is more scrutiny of these projects and the public begin to know they are being manipulated. This provides further evidence that increased accountability may reduce the ability of an incumbent to successfully manipulate spending for political support and substantiates my findings of Chapter 4.

This chapter also shows how visibility matters more at the beginning of an incumbent's tenure. For example, I showed how presidents started these projects as populist measures

and relied on the wow factor and the promised jobs, and by the time the wow factor faded away, they began to rely more on targetability and patronage and support of the elites. There is substantive evidence that these projects tend to make them more secure politically, but eventually more detached from the masses, emphasizing how different presidents continued to prioritize elite support over broad based support. I also show how in line with neoliberalism pushed domestically or from abroad, the nature of these projects has shifted, and they have more recently become more biased towards to crony real estate and construction sectors. The chapter also sheds further light on the nuances of visibility and shows the dynamics of the strategic timing of projects that despite being initially largely visible via the media fanfare that accompanies them, were quietly withdrawn, scaled back, or halted altogether.

I also demonstrate how the targetability mechanism works by showing how these projects facilitated the distribution of patronage to key elites who support the regime. I was also able to elaborate on an additional mechanism by showing how although these projects were used mainly to target patronage to the elites; I demonstrated how the creation of jobs via these projects is an additional common and favored method of patronage due to its low cost compared to other methods (Assaad, 1997, Barsoum and Abdalla, 2020, Handoussa, 1983, Coate and Morris, 1995, Galal and Selim, 2014). And these jobs have been critical for public support and regime survival in Egypt by ensuring that employees felt invested in the regime's continuity (Altermann, 2000, Blaydes, 2011, Al-Ississ and Atallah, 2015). This suggests that political distortions allowed successive Egyptian presidents to target spending towards clientelist networks in the form of questionable large economic infrastructure projects and public employment. Through the case study I also highlighted how specific features, beyond those examined in Chapters 3 and 4 may further exacerbate the distortive effect politics will have on the allocation and efficiency of investment. I highlight centralization, unemployment, an ineffective tax system and aid flows.

Finally, although I do not quantitatively test whether these investments are indeed wasteful or less productive, in Chapters 3 and 4 I focus on the variables that theoretically suggest that political competition can have a more distortionary effect on the allocation of investment. I show what forms this misallocation takes in MICs with lower levels of horizontal and vertical accountability and find that economic infrastructure investment is more likely to be driven by this distortionary effect than social infrastructure investment. And in Chapter 5 I build on these findings and show how in these MICs with low levels of accountability from the public or from institutions, like Egypt, large-scale economic infrastructure projects, are both visible and targetable, therefore they become a magnet for overinvestment, and WE proliferate. They are more visible to the public and foreign patrons and more targetable not only to elites via preferential contracts, but also to the public via public employment. They fulfill different functions for different leaders at different times, making them an endemic phenomenon that is very hard to get rid of. Collectively, my findings provide evidence of the role of politics on a country's investment decisions and subsequently on the productivity of this investment.

6.4. Relevance

Inefficient public infrastructure investments plague many countries around the world, but the risk of their existence is even higher in MICs with low accountability. Eliminating this inefficiency and the WE it creates is critical to tackling the dual needs of pressing needs and limited financial resources in the developing world. By eliminating political inefficiencies in the provision of public infrastructure investment the MIT can theoretically be surpassed.

However, despite the documented wastefulness of many infrastructure investments, increasing large economic infrastructure investment remains popular today among donors, foreign investors and MIC governments (Nugent, 2018). And indeed MIC's are found to overinvest in economic infrastructure at the expense of social infrastructure; even though economic infrastructure is thought to be particularly problematic in these contexts (Mogues, 2015). On the other hand, despite the established importance of social

infrastructure investments, governments in MICs are underinvesting it, even though arguably, they need it the most.¹⁷⁴(UNICEF, 2022). This is because, as I demonstrate, economic infrastructure is highly visible and discretionary, it can deliver short term benefits and employment, is easily attributed to the incumbent, can demonstrate power and competence and is easy to target to key groups and create long term patronage networks(Joanis, 2011, Breunig and Busemeyer, 2012, Bonoli, 2012). As a result, there is mounting evidence that due to these political motivations, economic infrastructure investment does not contribute to growth in these contexts and can create wasteful WE(Abdul Abiad, 2017, Irshad et al., 2023, Bose et al., 2017).

In line with this, among the most prevalent explanations of the MIT is the decreased efficiency of public investment that arises due to distorted political incentives which result in a misallocation of resources (Agénor and Canuto, 2015). What is even more puzzling is how MIC's 'throw cash at the trap', where they indeed invest, but this investment is severely misallocated and therefore inefficient(Wong and Fung, 2019). This is highly problematic because recent evidence suggests that public investment in MICs should carry significantly higher returns and therefore improvements in this allocation may be particularly beneficial for countries hoping to escape the MIT(Foster et al., 2022b). It has recently been argued that removing inefficiencies in public investment allocation in MICs could increase infrastructure output by 55% (Kapsoli et al., 2023). And today it is believed that increasing investment efficiency is a critical avenue to building proper infrastructure, especially in MICs, where it has been accepted that the proliferation of WE is a reflection of poor project selection as a result of politics(Ganuza and Llobet, 2020).

The findings of my dissertation contribute to the literature on the political economy of the MIT and development in general in which the relationship between narrow targeting and visibility in developing countries has been ignored. Most of the literature on public

¹⁷⁴ education and health are the most important public services for the poor[Guggiola, 2011]

investment and development have tended to view political competition as a positive solution to government failures, but few studies have examined or discussed the negative effect political competition can have on the allocation and productivity of investment. An intentional focus on these concepts is necessary since targetability and visibility are not the same in different contexts, nor is competition the same as democracy.

The broader contribution of this dissertation is therefore to challenge assumptions linking political competition to desirable development outcomes and to highlight how and when politics can distort the allocation of investment. And my findings contribute to the emerging literature on the negative effects of political competition in contexts with weak institutions and accountability¹⁷⁵. Since distortions in spending for purely political reasons may have high economic costs, it has become crucial to identify and understand these distortions. Moreover, understanding the conditions under which such manipulation is most likely to occur and be economically harmful is essential.

In this dissertation I highlight how and why studies that attempt to understand the MIT or more specifically, wasteful investments and WE must take a political economy approach to understand why some incumbents are motivated to bias investment towards inefficient categories. To this day, no research has attempted to draw a link between politically motivated spending manipulation and WE. This is even though it is logical that WE be analyzed with regards to their visibility and targetability, since they have been deemed to be a symptom of megalomania, which is linked to their visibility and also a form of inefficient targeting and distribution.

This dissertation addresses several core areas within the existing research on the political determinants of public investment. The dissertation combines works on the incentives of actors [political survival], the characteristics of the investments [visible and targetable], and the broader political and social environment that shape this misallocation and can

¹⁷⁵ See Gottlieb and Kosek[2019]

contribute towards wastefulness. It also qualitatively demonstrates how these political motivations can distort economic outcomes and create a vicious cycle¹⁷⁶ in which a country can be stuck in a trap of misallocation and wasteful investments, increasing the prevalence of WE. By using this approach, this dissertation is unique in that it can balance between and combine previously separate, agent-centric, and investment-centric approaches. It is also able to provide a thorough theoretical and empirical examination of how the different characteristics of public investments make them more or less likely to be realized by survival seeking incumbents in MICs. This fills a gap in the literature that previously consisted mostly of cross-country econometric analysis that focused on developed countries and qualitative case studies; or was non-empirical, mainly concerned with theoretical modelling or conceptual discussions. Previous research also either focused on visibility or targetability but has neglected to examine how many incumbents use both mechanisms in tandem; especially in MIC's where low information and constraints allow the incumbent to successfully manipulate the budget in several ways.

Finally, by focusing on MICs, this dissertation provides a contribution based on the reality that most theoretical work from political science that seeks to explain public investment allocation is motivated by and developed around institutional phenomena most relevant to advanced democratic systems, nearly all of which are found in industrialised economies. For many MICs, with either imperfect democratic systems or some form of authoritarianism within decision making, many well-established models from political economy are not particularly relevant.

Another important contribution of the dissertation is relevant to the 'visibility' hypothesis. This is because almost all research that focuses on visibility, assumes that current spending is more visible due to its immediate gains. This dissertation showed

¹⁷⁶ This is like the concept of an 'ignorance trap', a situation in which uniformed citizens support politicians whose policies do not tackle the citizens' ignorance – they deliberately magnify it. And weak rule of law and ineffective government are notoriously difficult to improve.

how other aspects of investment can indeed be more visible,¹⁷⁷ and that it might be that transfers, and current spending are not visible at all in MICs. The same applies for previous research that focused on targetability and assumed that only transfers and social protection could be targetable, ignoring the facet of patronage that exists within large scale economic infrastructure. By testing for the effect of political competition on the functional components of spending, this dissertation allows us to identify and understand which items inside the main components of spending are being politically driven by incumbents. These items are those that tend to be more visible to the public and targetable to elites in MICs.

This is important to understand because it is generally believed that there is a lack of a comprehensive procedure to detect potential WE. Therefore, the aim of this dissertation is to comprehensively examine the political determinants of public investment allocation in MICs, to help detect WE and analyze the political factors that can increase the probability of their presence. This stems from the fact that while research that studies financial motivations and disappointing results is increasingly available in the literature, there is lack of in-depth analysis on how and why political incentives and processes combine to promote inefficient investments and wasteful projects.

6.5. Policy implications

The value of this political-economy approach is that it can provide indications—however rough—both on the departure of investment allocation from the social and economic optimum and on the extent and forms of political distortions. And today, the findings of this dissertation are critical and timely. This is because in 2014, the IMF declared that the time was right for another ‘infrastructure push’ in MICs and around the world. However, the failures and shortcomings of this push are now beginning to come to light and the reality is that there have been prior and subsequent periods of infrastructure ‘enthusiasm’ with many WE to show for, but not much actual economic growth and

¹⁷⁷ This is like arguments by Furdas et al. [2015] and Gupta et al. [2015]

development(Nugent, 2018). Therefore, the findings of this dissertation can contribute towards managing expectations with regards to enthusiasm for ‘infrastructure pushes’, by helping highlight when, why and where these pushes run the risk of being distorted by politics. This is especially relevant because most analyses now assume that wasteful investments are due to incompetence and do not realize that the implications of these investments are often understood by incumbents; I provide evidence for this in Chapter 5. To this end, this dissertation attempts to contribute towards understanding the political, social, and institutional processes needed for incumbents to invest in infrastructure efficiently and to overcome this distortionary effect politics can have on growth and development that is plaguing MICs.

Considering the accepted premise that public infrastructure can have profound effects on productivity, growth, and development, and ultimately escaping the MIT; it is important to understand what drives decisions on public investment. This will allow us to gain insights into the enabling and inhibiting factors for incumbents to make the necessary productive investments and avoid wasteful investments by eliminating or minimizing harmful budget manipulations. Therefore, this dissertation is important in that it helps policymakers and economic commentators to further understand the symptoms of politically driven infrastructure investments and where, when, and why they are more likely to emerge and be wasteful. By shedding light on the distortive impact politics can have on investment allocation, I can provide recommendations on how to mitigate overspending on certain sectors that may be unproductive and may crowd out spending on more productive sectors. Today this is important to understand because many MICs are still in the early stages of new infrastructure construction.

The results of Chapter 4 are also important, because even though it was generally believed that spending on education and health will be good for development and growth; many studies focused on MICs are highlighting the inefficiency of health and

education spending in these contexts. This may be explained by the increased visibility of these categories of spending and the political drivers of this misallocation.

If we understand the incentives to manipulate and the nature of the manipulations, governments can attempt to counterbalance the distortionary effects of politics by actively channeling more spending towards the sectors that are sacrificed due to political distortions. For example, this can be done by making them more visible and salient by highlighting their importance and making them promotion targets. This will raise the profile of less visible yet necessary investments.

Decreasing politically induced narrowly targeted investments can also be done by increasing institutional constraints which can prevent incumbents from manipulating investment towards elite interests. Therefore, the findings of the dissertation bring to light relevant and feasible strategies to overcome impediments and disincentives to investing in previously less visible and targetable categories of spending. By looking closely at the political determinants of public infrastructure and shedding light on when this effect is likely to become distortionary, this dissertation should help decision makers understand the causes of failure of many megaprojects and equip them with strategies to help reduce this distortionary effect. It also contributes to the global discourse on sustainable project management to foster sound infrastructure and economic development.

Even if the case study looks specifically at Egypt, the phenomenon uncovered should have strong relevance and implications in other contexts. And the way subsequent Egyptian presidents used megaprojects to cement their legitimacy, uphold patronage networks and signal their competence to the public is in a manner that is common for many authoritarian MIC's. The findings of my case-study suggest that long-term tracking of project performance and greater transparency over delivery will help make sure that competence isn't deduced from merely announcing or starting intrinsically visible

projects regardless of their economic inefficiencies. It is also evident that with regards to manipulation towards visible projects, that as suggested by Morris (2014), transparency along with aggressive scrutiny and reporting by the media can also help reduce the proliferation of WE. The case study also shows that if incumbents benefit politically from simply starting projects and not necessarily from their economic outputs, wasteful investments will continue to be undertaken. This highlights how governments need to work on making sure that micro-evidence on the impact of investments ex-post exists more widely. And the use of objective data and evidence is required to guide investment decisions and to avoid or at least scrutinize over-optimistic forecasts and promises. If implemented properly this increased accountability should safeguard the allocation process from political distortions. And according to Docking (2013) this must be pushed and implemented by International Development Institutions, who even today lack these necessary modern monitoring and evaluation tools, that would rapidly and effectively provide feedback on key performance indicators and outcomes with regards to the massive projects they push for and support.

Another issue is with regards to the targeting that takes the form of employment that I described in the case study and touched upon in Chapter 4. This is particularly problematic on the long run, and it has been found that when incumbents provide jobs to signal competence or as political patronage, they prevent the professionalization of bureaucracies and reduce the efficiency of the public sector as a whole.¹⁷⁸

But improving technical methods to remove these inefficiencies alone will not be enough, and as I show in Chapters 3,4 and 5, this needs to be coupled up with better governance structures that force incumbents to use and reward accurate feasibility studies. My findings also show that greater transparency must exist when forecasting the costs and expected usage of large economic infrastructure projects. This should include better

¹⁷⁸ For example, according to Callen et al., [2023], doctors with connections to political leaders have been found to be more absent from public health clinics

availability of relevant evidence supporting forecasts, and public hearings where stake holders can scrutinize planned projects as argued by Flyvbjerg (2009). Improved accountability and transparency should exist in all phases of project selection and implementation. In so far as inefficiency is due to reduced accountability via high corruption and low rule of law, which increases narrow targeting, this should be deterred through improved governance indicators, checks and balances and the relevant anti-trust laws. And although improving governance is not an easy endeavor, it is an urgent and necessary one if countries are to benefit from the growth-promoting effect of economic infrastructure and public investment more generally. This will require various commitment devices that help politicians resist short-term political temptation and pursue long-term oriented spending policies based on rules rather than discretion.

I suggest in Chapters 3 and 4 and show in Chapter 5 that greater political accountability, from both the public and institutions can mitigate the negative effect of this manipulation and subsequently improve the allocation of government resources towards more efficient projects, which will ultimately benefit economic growth and development. I make it clear that both horizontal and vertical accountability are necessary to mitigate the distortionary effect of political competition on the allocation of investment and therefore policymakers need to focus on improving these aspects on both the demand side and the supply side. For example, tackling corruption and improving governance factors like rule of law and executive constraints can limit political distortions like narrowly targeting investments, that are induced by political competition. It is also clear that media freedom and improving the level of information that is provided to the public can increase scrutiny and accountability and reduce the bias of spending towards intrinsically visible categories.

The case-study also makes it clear that if the regime is not willing or forced to break up with old political allies and constituents it will be difficult for their investments to be focused on economic growth and instead many investments may be targeted towards

these narrow interests. This willingness and ability is derived from the accountability mechanisms that I outline in Chapters 3 and 4. The entrenched elites that benefit from the status quo, the rents that continually enable subsequent Egyptian presidents to avoid necessary reforms and the preoccupation of Egyptian presidents since Nasser to extract resources from abroad are all hurdles in the way of efficient investment allocation, along with the authoritarian social contract that is often a characteristic of many MICs.

It is also clear that an autonomous private sector is necessary, but this is easier said than done, especially in contexts with low horizontal accountability, since it is often perceived as a threat to the incumbent. So, the findings of the case study suggest that to get rid of or reduce these political distortions the regime needs to upset interests-both at home and abroad- that it relies on for political survival. Finally, even if the focus on Egypt might reduce the lessons that can be learnt for policymakers due to contextual specificity, a common theme emerges, and the case study highlights the important role that accountability both from the public and from institutions can play in shaping infrastructure decisions and its outcomes.

Some lessons can also be learnt from East Asian governments that are in line with my findings. For example, it is generally believed that better education levels in these contexts were useful in mitigating the harmful effect of manipulation and that policy making was insulated from interest groups due to lower levels of corruption and better institutional quality. This further reinforces and highlights my findings from both the case study and the quantitative analysis, that improved public information and reduced corruption can mitigate the distortionary effect politics can have on investment.

Theoretically and as demonstrated in East Asian countries, this improved information enabled legitimacy for the leader to be more linked to economic gains and not merely economic promises and also increased the visibility of necessary social infrastructure investments. These findings have direct implications for those wishing to provide policy advice as my findings suggest that better information can make social infrastructures

more visible and therefore make people more supportive of social spending, which could provide political incentives for its provision.

It is also important to note that many of the aid agencies that push for increased economic infrastructure investment create a model themselves that is designed to maximize building and not necessarily returns on infrastructure. This is believed to foster the misallocation of infrastructure investment and make it difficult for recipient countries to dismount this ‘investment treadmill’, which results in overinvestment in economic infrastructure as is evident in China today (Chancellor, 2013). This suggests that this model and these development agencies may need to revise their strategies and advice. And multilateral development banks can play a key role in improving framework conditions that increase the effectiveness of public investment in MICs.

Additionally, and more generally, it is crucial to find a way of changing the incentives of policy makers so that they are less myopic and care more about the long-term results of their investments. And even though this may be easier said than done, changing promotion targets, and implementing innovative budgeting systems, like ‘participatory budgeting¹⁷⁹’ or ‘budgeting for outcomes’ while improving both horizontal and vertical accountability mechanisms¹⁸⁰ that I outline in Chapters 3 and 4, can reduce the incentives and ability of an incumbent to manipulate the budget and reduce the success of manipulation.

6.6. Limitations

In this dissertation, I am not providing a comprehensive explanation for the individual sources of growth; instead, my goal is to systematically map political characteristics onto one of the key sources of economic growth, providing a theoretically coherent- albeit

179 For example, in Brazilian municipalities, participatory budgeting resulted in improved municipal responsiveness by aligning the allocation of investment to the population’s needs. This led to increased public investments in social infrastructure like, education, and health, and contributed to improved social outcomes[Goetz et al. 2019; Boulding and Brown, 2013]

180 For example, in Brazil, Chile, Mauritius, Costa Rica, and Ireland, the absence of such mediating institutions that enable increased accountability has made experiences with participatory budgeting short-lived and limited in scope.

partial- explanation of the empirical record. And although this dissertation contributes significantly to the sparse volume of work on the topic, there are several limitations that I must acknowledge.

I mention in the introduction that the provision and efficiency of infrastructure investment is affected by political motivations that affect how competently projects are selected, implemented, and monitored, and ultimately how productive they are. Although these are all important facets in the puzzle, it is important to note that I merely focus on the political determinants of these economic decisions and touch slightly on their implementation in the case study.

Crucially, I do not test whether these investments are productive or contribute to growth, I merely examine the effect of political competition on investment in contexts where *theoretically* this manipulation will lead to sub-optimal outcomes and a higher risk of WE. And even in my case study, quantitatively measuring the success or failure of these megaprojects is a difficult endeavor due to data constraints and is beyond the scope of this dissertation. Therefore, discussing the implications of these projects for performance and economic growth more generally is beyond the scope of this dissertation and looking at how productive this spending is, is something I leave to the economists and to further research. It is also important to note that often the quality of economic data in MICs in general is criticized and the quality of economic data in Egypt, is also questionable and it has long been accepted that Egyptian public investment figures are inaccurate and overstated.

The case-study approach used also has some limitations, as it cannot quantitatively demonstrate exactly the numbers related to poor project performance. Furthermore, megaprojects often have unique characteristics and many influencing factors for their performance. The Chapter therefore provides a first tentative to approach the problem,

whereas further research will need to identify the most appropriate methods to analyse the phenomenon in-depth.

It is also worth noting that disentangling visibility and targetability is difficult, because many of these aspects overlap; this is highlighted by the fact that no prior research has attempted to do this. For example, aspects like transparency, although mostly linked to visibility, is sometimes linked to targetability. And the increased employment opportunities that certain spending provides, although mostly linked to patronage and targetability, are often believed to also make spending more visible. So, although my distinction may not be perfect, it is a step towards identifying which categories are more visible or targetable in different contexts.

With regards to definitional limitations, it is difficult to distinguish social infrastructure investment in health and education from consumption spending. It is therefore difficult to know whether to count all expenditures as investment, and difficult to know how to depreciate these types of spending in defining infrastructure investment (Gramlich, 1994). Another issue is that country level data on capital spending in different sectors like transportation, health and education is sparse. The availability of such data would be particularly valuable in helping to analyze the visibility and targetability and efficiency of different sectors. Specifically with regards to Chapter 4, having compositional data for health and education will be particularly valuable in helping us understand which facets of these spending categories increase with political competition and are more visible.

Another issue for example is the fact that arguably, televisions or computers are more important when it comes to information provision than newspapers today. Especially since I look at this variable from 1990 it becomes difficult to decide on how to properly operationalize theoretical concepts like information asymmetries. There are also issues raised as to whether rule of law and corruption adequately capture and proxy rent-seeking or targeting opportunities. Also, my dissertation relies on perception-based

measures of corruption, which might not accurately reflect the actual levels of corruption in a country. Future studies could employ more objective indicators of corruption.

6.7. Future research

To address these limitations, future research can examine different aspects of this puzzle that I brought up throughout the dissertation. For example, research can look at the role of aid and how a number of these projects can be used for geopolitical purposes, like pitting elites and donors against each other to reshape or entrench power hierarchies and legitimize the regimes rule. Although I touch upon this in my case study, there is definitely room for research to focus on this external aspect of misallocation.

Future research can also utilize different proxies for insecurity other than political competition like, unemployment, spending on the ministry of interior and security and cabinet changes(Goldstone, 2011, Kelly, 2020, AbdelKader, 2015). And although my work suggests that based on theory, these politically motivated investments can often become wasteful WE, I do not actually measure the efficiency and productivity of these investments in my empirical chapters. Therefore, research will also benefit from looking at the efficiency of this investment, using the ICOR measure for example, which is investment ratio divided by GDP growth. Albino-War et al. (2014)for example applied benchmarking methods to measure the efficiency of public investment by using the World Economic Forum's quality of infrastructure survey¹⁸¹. Further research could also evaluate the impact of these politically motivated investments in education for example on relevant indicators like the quality of education outputs, including enrolment and academic achievement¹⁸². Alternatively, future research could use outcome measures instead of spending, like road length etc.

181 IMF [2015] and Baum, et al. [2020] proposed a more comprehensive approach on the measurement of the efficiency of public investment by using indicators of social infrastructure alongside the traditional physical infrastructure outputs

182 It is important to note that while there is significant literature that deals with benchmarking health and education investment, similar benchmarks for economic infrastructure are limited

There are also many interesting findings that arise when the sample is split according to regime type, which may warrant further attention. Although this is generally beyond the scope of this dissertation, I include in the Appendix some interesting figures. Future research can also benchmark Egypt against neighbors and competitors. And future research may value from looking at countries that change regime type, and whether the allocation of investment and nature of projects change; this could also include countries that backslide.

Moreover, recently it has been posited that a strong complement to observational-data-based enquiries on how politics shapes outcomes on public spending allocations would be field experimental evidence. While it may seem difficult to operationalise, there are promising new methods to experimentally examine how political factors shape economic phenomena. For example, another way to look deeper at the concept of visibility is a survey that assesses visibility within a case like Egypt. The public can be asked to determine their perceived allocation of the budget between different categories, and this can be compared to actual spending and positive values can indicate increased visibility, while negative values can indicate reduced visibility. See Moehler (2010) for more options on how to apply survey research to this topic.

Chapter 7: Appendix and Bibliography

7.1. Descriptive Statistics

Table 7-1 Descriptive Statistics of Main Variables

<i>Statistic</i>	N	Median	Mean	Std.dev	min.	max.
<i>PolComp</i>	1522	7.000	6.585	2.718	1	10
<i>years of school</i>	1522	6.813	7.081	2.035	2.28	11.519
<i>press freedom</i>	1522	33.0	33.17	14.236	8	80
<i>newspapers</i>	1522	290	479.98	558.092	10.58	4725.36
<i>transparency</i>	1522	51	50.05	10.72	18	74
<i>rule of law</i>	1522	0.00	-0.3903	0.587	-1	1
<i>Corruption[bci]</i>	1522	55.24	50.23	16.63	0	72.88
<i>executive constraints</i>	1522	5.00	4.827	1.852	1	7
<i>social protection</i>	1522	1.00	2.311	3.283	0.00	31.259
<i>transport and communication</i>	1522	45.42	46.87	19.407	0.00	99.84956
<i>defence</i>	1522	8.014	12.012	12.123	0.00	55.695
<i>education</i>	1522	6.928	7.8701	5.16	0.066	45.949
<i>health</i>	1522	14.00	13.8068	7.1638	0.632	74.1415787
<i>GDP Per capita</i>	1522	2952.8	3724.5	2926.701	354.3	20512.9
<i>Gini</i>	1522	41.00	42.08	8.995	23.90	61.76
<i>Population density</i>	1522	66.825	111.577	157.8739	1.406	1213.573

Table 7-2 Variables and Data Sources

<u>Regime Type</u>	Bjørnskov- Rode regime data	
<u>news WB</u>	Daily newspapers per 1,000 people- [WB2010]	
<u>transparencyindex HR</u>	The point estimate of the HRV index for each country and year. [HRV]	The scores capture the extent to which governments report economic data to the World Bank. Higher scores mean more data is reported.
<u>ruleoflaw SGI</u>	Rule of Law [SGI]	To what extent are public officeholders prevented from abusing their position for private interests? [higher average values equal higher quality of governance]
<u>ti_cpi TI</u>	Corruption perceptions index [TI]	The Corruption Perceptions Index [CPI] ranks of countries around the world, based on how corrupt their public sectors are perceived to be. The results are given on a scale of 0 to 100, where 0 is highly corrupt and 100 is very clean.
<u>CC_EST_WGI</u>	Control of corruption,	A scale from -2.5 to 2.5 [higher average values equal higher quality of governance]

	estimate [WB WGI]	
<u>bci_bci</u>	The Bayesian Corruption Indicator	The BCI index values lie between 0 and 100, with an increase in the index corresponding to a raise in the level of corruption.
<u>pwt_hci</u>	Human Capital Index	Human capital index, based on years of schooling [Barro/Lee, 2010] and assumed returns. Higher is better.
<u>rsf_pfi</u>	Press Freedom Index	The Press Freedom index measures the amount of freedom journalists, and the media have in each country and the efforts made by governments to see that press freedom is respected. It does not take account of all human rights violations, only those that affect press freedom. Neither is it an indicator of the quality of a country's media. Lower values mean press is freer. Source: Reporters without Borders
<u>diat_ti</u>	Transparency Index	Higher scores= more transparency Dataset for Information and Accountability Transparency {2014} The article "A global index of information transparency and accountability" [Williams, 2015] uses a relatively new

		methodology, like Transparency International's Corruption Perceptions Index, to construct composite indicators of Informational Transparency, and Accountability. These new indicators use data from 29 sources, with scores being derived annually between 1980 and 2010 across more than 190 countries.
wbgi_cce	Control of Corruption, Estimate	"Control of Corruption" measures perceptions of corruption, conventionally defined as the exercise of public power for private gain. The aspect of corruption measured by the various sources differs somewhat, ranging from the frequency of "additional payments to get things done", to the effects of corruption on the business environment, to measuring "grand corruption" in the political arena or in the tendency of elite forms to engage in "state capture".
p5_polcomp	Political Competition	Concept variable combines information presented in two component variables: PARREG and PARCOMP
p5_parreg	Regulation of Participation	Participation is regulated to the extent that there are binding rules on when, whether, and how political preferences are expressed.

1) Unregulated: Political participation is fluid; there are no enduring national political organizations and no systematic regime controls on political activity.

2) Multiple Identity: There are relatively stable and enduring political groups which compete for political influence at the national level—parties, regional groups, or ethnic groups, not necessarily elected—but there are few, recognized overlapping [common] interests.

3) Sectarian: Political demands are characterized by incompatible interests and intransigent posturing among multiple identity groups and oscillate regularly between intense factionalism and government favouritism, that is, when one identity group secures central power, it favours group members in central allocations and restricts competing groups' political activities, until it is displaced in turn [i.e., active factionalism].

4) Restricted: Some organized political participation is permitted without intense factionalism but significant groups, issues, and/or types of conventional participation are regularly excluded from the political process.

5) Regulated: Relatively stable and enduring political groups regularly compete for political influence and positions with little use of coercion. No significant groups, issues, or types of conventional political action are regularly excluded from the political process.

p5_parcomp

The
Competitiveness
of Participation

The competitiveness of participation refers to the extent to which alternative preferences for policy and leadership can be pursued in the political arena.

o) Not Applicable: This is used for polities that are coded as Unregulated, or moving to/from that position, in Regulation of Political Participation

1) Repressed: No significant oppositional activity is permitted outside the ranks of the regime and ruling party. Totalitarian party systems, authoritarian military dictatorships, and despotic monarchies are typically coded here.

2) Suppressed: Some organized, political competition occurs outside government, without serious factionalism; but the regime systematically and sharply limits its form, extent, or both in ways that exclude substantial groups [20% or more of the adult population] from participation.

3) Factional: Politics with parochial or ethnic-based political factions that regularly compete for political influence to promote particularistic agendas and favour group members to the detriment of common, secular, or cross-cutting agendas.

4) Transitional: Any transitional arrangement from Restricted, Suppressed, or Factional patterns to fully Competitive patterns, or vice versa. Transitional arrangements are accommodative of competing, parochial interests but have not fully linked parochial with broader, general interests. Sectarian and secular interest groups coexist.

5) Competitive: There are relatively stable and enduring, secular political groups which regularly compete for political influence at the national level; ruling groups and coalitions regularly, voluntarily transfer central power to competing groups. Competition among groups seldom involves coercion or disruption. Small parties or political groups may be restricted in the Competitive pattern.

<u>Av tyr sch</u>	Average Total years of schooling, population ages 15-64	Barro-Lee Educational Attainment Data Average
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<u>p5 xconst</u>	Executive Constraints [Decision Rules]	<p>According to Eckstein and Gurr, decision rules are defined in the following manner: "Superordinate structures in action make decisions concerning the direction of social units. Making such decisions requires that supers and subs be able to recognize when decision-processes have been concluded, especially "properly" concluded. An indispensable ingredient of the processes, therefore, is the existence of Decision Rules that provide basic criteria under which decisions are considered to have been taken." [Eckstein and Gurr 1975, 121]</p> <ol style="list-style-type: none"> 1) Unlimited Authority 2) Intermediate Category 3) Slight to Moderate Limitation on Executive Authority 4) Intermediate Category 5) Substantial Limitations on Executive Authority
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6) Intermediate Category

7) Executive Parity or Subordination

The variable “PolComp” from Marshall and Jaggers (2011) takes the following values:

- [1] Repressed Competition – the polity is institutionally closed, and the regime bans all organized opposition groups
- [2] Restricted Competition – the polity is institutionally closed, and the regime systematically restricts major opposition groups
- [3] Deepening of Hegemonic Control – concerted effort on the part of hegemonic regimes to open their political systems to limited political competition
- [4] Uninstitutionalized Competition – political participation is decentralized and fluid in character
- [5] Gradual Transition from Uninstitutionalized Competition – transition from [4] to more regulated forms of political competition
- [6] Factional/Restricted Competition – when one faction secures power it promotes its exclusive interests and favours group members while restricting the political access and activities of other, excluded groups, until it is displaced in turn.
- [7] Factional Competition – Relatively stable and enduring political groups which compete for political influence at the national level – parties, regional groups, or ethnic groups – but particularistic/parochial agendas tend to be exclusive and uncompromising with limited social integration or accommodation across identity boundaries
- [8] Democratic Retrenchment: Persistent Overt Coercion – reflects the unconsolidated nature of liberal political participation in otherwise procedurally democratic polities
- [9] Democratic Retrenchment: Decreasing Overt Coercion – reflects relatively peaceful transitions either to or from institutionalized competitive participation
- [10] Institutionalized Open Electoral Participation – Relatively stable and enduring political groups regularly compete for political influence with little use of coercion. No significant or substantial groups, issues, or types of conventional political action are regularly excluded from the political process.

Figure 7-1 Composite Variables of POLCOMP

<i>Competitiveness of Political Participation (PARCOMP):</i>	
1. Repressed	+2
1. Suppressed	+1
2. Factional	+1
3. Transitional	+2
4. Competitive	+3
<i>Regulation of participation (PARREG):</i>	
1. Restricted	+2
2. Sectarian	+1

Table 7-3 Descriptive Statistics for Countries in Dataset

<i>Country</i>	Regime Type	Income Classification	Mean Political Competition	Median Political Competition
<i>Albania</i>	Civilian Dictatorship /Parliamentary Democracy	Upper Middle Income	8.03703704	9
<i>Algeria</i>	Military Dictatorship /Civilian Dictatorship	Lower Middle Income	5.51851852	6
<i>Angola</i>	Civilian Dictatorship	Lower Middle Income	5.07407407	8
<i>Argentina</i>	Presidential Democracy	Upper Middle Income	9	9
<i>Azerbaijan</i>	Civilian Dictatorship	Upper Middle Income	2.85185185	2

<i>Bangladesh</i>	Mixed Democracy /Military Dictatorship /Civilian Dictatorship /Parliamentary Democracy	Lower Middle Income	6.51851852	7
<i>Bhutan</i>	Royal Dictatorship /Parliamentary Democracy	Lower Middle Income	3.22222222	1
<i>Botswana</i>	Mixed Democracy	Upper Middle Income	9	9
<i>Brazil</i>	Presidential Democracy	Upper Middle Income	9	9
<i>Cameroon</i>	Civilian Dictatorship	Lower Middle Income	4.14814815	6
<i>Cape Verde</i>	Mixed Democracy /Civilian Dictatorship	Lower Middle Income	9.37037037	10
<i>China</i>	Civilian Dictatorship	Upper Middle Income	1	1
<i>Colombia</i>	Presidential Democracy	Upper Middle Income	7.37037037	7
<i>Congo</i>	Mixed Democracy	Lower Middle Income	3.25925926	3

	/Military Dictatorship			
<i>Costa Rica</i>	Presidential Democracy	Upper Middle Income	10	10
<i>Dominican Republic</i>	Presidential Democracy	Upper Middle Income	8.51851852	9
<i>Ecuador</i>	Presidential Democracy /Civilian Dictatorship	Upper Middle Income	7.88888889	8
<i>Egypt</i>	Military Dictatorship	Lower Middle Income	3.11111111	2
<i>El Salvador</i>	Presidential Democracy	Lower Middle Income	8.7037037	9
<i>Equatorial Guinea</i>	Military Dictatorship	Upper Middle Income	1.88888889	2
<i>Fiji</i>	Mixed Democracy /Military Dictatorship /Civilian Dictatorship	Upper Middle Income	5.7037037	6
<i>Georgia</i>	Mixed Democracy /Civilian Dictatorship	Upper Middle Income	6.44444444	6
<i>Ghana</i>	Presidential Democracy	Lower Middle Income	7.74074074	8

	/Military Dictatorship			
<i>Guatemala</i>	Presidential Democracy	Upper Middle Income	8.48148148	9
<i>India</i>	Parliamentary Democracy	Lower Middle Income	8.40740741	9
<i>Indonesia</i>	Presidential Democracy /Military Dictatorship	Upper Middle Income	6.51851852	8
<i>Jamaica</i>	Parliamentary Democracy	Upper Middle Income	9.11111111	9
<i>Jordan</i>	Royal Dictatorship	Upper Middle Income	8.40740741	9
<i>Kazakhstan</i>	Civilian Dictatorship	Upper Middle Income	3.18518519	3
<i>Kenya</i>	Presidential Democracy /Civilian Dictatorship	Lower Middle Income	6.96296296	8
<i>Lebanon</i>	Military Dictatorship /Civilian Dictatorship	Upper Middle Income	7	7
<i>Lesotho</i>	Military Dictatorship /Civilian Dictatorship	Lower Middle Income	7.03703704	7

	/Parliamentary Democracy			
<i>Malaysia</i>	Mixed Democracy /Civilian Dictatorship	Upper Middle Income	6.22222222	6
<i>Mexico</i>	Presidential Democracy /Civilian Dictatorship	Upper Middle Income	8.40740741	9
<i>Mongolia</i>	Mixed Democracy	Lower Middle Income	9.33333333	10
<i>Morocco</i>	Royal Dictatorship	Lower Middle Income	2.7037037	3
<i>Namibia</i>	Civilian Dictatorship	Upper Middle Income	9	9
<i>Nepal</i>	Royal Dictatorship /Parliamentary Democracy	Lower Middle Income	6.40740741	7
<i>Nigeria</i>	Presidential Democracy /Military Dictatorship	Lower Middle Income	4.25925926	5
<i>Pakistan</i>	Military Dictatorship /Parliamentary Democracy	Lower Middle Income	5.51851852	7

<i>Papua New Guinea</i>	Parliamentary Democracy	Lower Middle Income	4.18518519	4
<i>Paraguay</i>	Presidential Democracy	Upper Middle Income	7.48148148	7
<i>Peru</i>	Presidential Democracy /Civilian Dictatorship	Upper Middle Income	7.74074074	9
<i>Philippines</i>	Presidential Democracy	Lower Middle Income	8.85185185	9
<i>Senegal</i>	Mixed Democracy /Civilian Dictatorship	Lower Middle Income	9	9
<i>Serbia</i>	Mixed Democracy	Upper Middle Income	8	8
<i>South Africa</i>	Civilian Dictatorship	Upper Middle Income	8.55555556	9
<i>Sri Lanka [Ceylon]</i>	Presidential Democracy	Lower Middle Income	6.22222222	6
<i>Tanzania/Tanganyika</i>	Military Dictatorship /Civilian Dictatorship	Lower Middle Income	3.14814815	3
<i>Thailand</i>	Military Dictatorship /Parliamentary Democracy	Upper Middle Income	7.25925926	9

<i>Tunisia</i>	Presidential Democracy /Military Dictatorship	Lower Middle Income	6.33333333	6
<i>Turkey</i>	Mixed Democracy /Civilian Dictatorship	Upper Middle Income	6.81481481	6
<i>Ukraine</i>	Mixed Democracy	Lower Middle Income	7.33333333	7
<i>Vietnam, Democratic Republic of</i>	Military Dictatorship /Civilian Dictatorship	Lower Middle Income	1	1
<i>Zambia</i>	Presidential Democracy /Civilian Dictatorship	Lower Middle Income	7.37037037	7

7.2. Robustness

Models that control for GDP per capita, Population Density, Revenues and Inequality

Effect of Political Competition on Investment in MIC with standard controls

	Social Protection	Education	Health	Defence	Transport and Communication
	[1]	[2]	[3]	[4]	[5]
lag	0.858 ^{***}	0.853 ^{***}	0.864 ^{***}	0.914 ^{***}	0.869 ^{***}
	[0.009]	[0.005]	[0.004]	[0.002]	[0.001]
PolComp	-0.110 ^{**}	-0.040	0.141 ^{***}	0.130 ^{***}	0.012 ^{***}
	[0.047]	[0.050]	[0.010]	[0.090]	[0.177]
Observations	1,254	1,395	1,451	1,449	1,486
R ²	0.762	0.750	0.749	0.864	0.767
Adjusted R ²	0.761	0.750	0.749	0.864	0.766

* p < .1; ** p < .05; *** p < .01

Note: *p<0.10; **p<0.05; ***p<0.01

Robust standard errors in parentheses

Models with Fixed Effects, Control [GDP per capita, growth, revenues, population density and Gini) and pcse

Effect of Political Competition on Investment in MIC with only FE

	Social Protection	Education	Health	Defence	Transport and Communication
	[1]	[2]	[3]	[4]	[5]
lag	0.860 ^{***}	0.858 ^{***}	0.864 ^{***}	0.924 ^{***}	0.877 ^{***}
	[0.009]	[0.005]	[0.004]	[0.002]	[0.001]
PolComp	-0.059 ^{***}	-0.064 ^{***}	0.020 ^{**}	0.147 ^{***}	0.039 ^{***}
	[0.011]	[0.010]	[0.010]	[0.010]	[0.009]
Observations	1,254	1,395	1,451	1,449	1,486
R ²	0.761	0.749	0.749	0.863	0.766
Adjusted R ²	0.761	0.749	0.749	0.863	0.765
F Statistic	10,330.350 ^{***}	27,886.620 ^{***}	55,834.060 ^{***}	183,487.200 ^{***}	428,889.800 ^{***}

* p < .1; ** p < .05; *** p < .01

Note: *p<0.10; **p<0.05; ***p<0.01

Robust standard errors in parentheses

Models with Fixed Effects and pcse

7.3. All Regressions

Table 7-4 Effect of Political Competition on Spending in Countries with Low Rule of Law

<i>DV: Investment % in this category</i>	<i>FE</i>	<i>FE</i>	<i>RE</i>	<i>OLS [Pooled]</i>	<i>OLS [Pooled]</i>
<i>Social Infrastructure</i>	-0.310** [0.143]	-0.108*** [0.011]	0.070 [0.103]	-0.344** [0.113]	-0.104* [0.062]
<i>Education</i>	-0.009 [0.049]	-0.109** [0.053]	-0.090*** [0.012]	-0.378*** [0.058]	-0.071** [0.036]
<i>Health</i>	0.043 [0.074]	0.042 [0.079]	0.012 [0.011]	0.024 [0.084]	-0.048 [0.048]
<i>Social Protection</i>	0.010 [0.031]	-0.023 [0.031]	-0.066*** [0.017]	-0.067* [0.036]	-0.022 [0.020]
<i>Transport and Communication</i>	0.132 [0.226]	0.059 [0.201]	0.157*** [0.011]	0.070 [0.220]	0.070 [0.220]
<i>Defence</i>	0.146 [0.091]	0.116 [0.091]	0.136** [0.011]	0.884*** [0.129]	0.175*** [0.058]
<i>Controls</i>	N	Y	Y	Y Extensive	Y Extensive ¹⁸³
<i>Fixed Effects</i>	Y	Y	N	N	N
<i>Lag Dependent Variable</i>	Y	Y	Y	N	Y
<i>N</i>	1050	921	1,065	1,131	1,042
. p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001					
All models with PCSE					
Robust standard errors in parentheses					

¹⁸³ This model controls for GDP per capita, growth, population density and inequality

Table 7-5 Effect of Political Competition on Investment in MIC with Low Executive Constraints

<i>DV: Investment % in this category</i>	<i>FE</i>	<i>FE</i>	<i>RE</i>	<i>OLS [Pooled]</i>	<i>OLS [Pooled]</i>
<i>Social Infrastructure</i>	-0.219 [0.187]	-0.172 [0.187]	-0.029 [0.018]	-0.030 [0.103]	-0.054 [0.111]
<i>Education</i>	-0.039 [0.104]	-0.017 [0.104]	0.180*** [0.021]	0.508*** [0.104]	0.211*** [0.076]
<i>Health</i>	-0.093 [0.143]	0.069 [0.143]	-0.032 [0.020]	0.172 [0.128]	-0.075 [0.084]
<i>Social Protection</i>	-0.092 [0.069]	-0.095 [0.070]	-0.089*** [0.021]	-0.339*** [0.072]	-0.076* [0.042]
<i>Transport and Communication</i>	0.0341 [0.366]	0.094 [0.367]	0.172 [0.018]	0.027 [0.339]	0.032 [0.205]
<i>Defence</i>	0.322* [0.155]	0.311** [0.156]	0.527*** [0.027]	1.250*** [0.158]	0.426*** [0.103]
<i>Controls</i>	N	Y	Y	Y Extensive	Y Extensive
<i>Fixed Effects</i>	Y	Y	N	N	N
<i>Lag Dependent Variable</i>	Y	Y	Y	N	Y
<i>N</i>	442	433	443	469	460

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

All models with PCSE

Robust standard errors in parentheses

Table 7-6 Effect of Political Competition on Investment in MIC with High Corruption

<i>DV: Investment % in this category</i>	<i>FE</i>	<i>FE</i>	<i>RE</i>	<i>OLS [Pooled]</i>	<i>OLS [Pooled]</i>
<i>Social Infrastructure</i>	-0.337** [0.165]	-0.039* [0.113]	-0.132*** [0.011]	-0.417*** [0.104]	-0.117* [0.068]
<i>Education</i>	-0.038 [0.062]	0.067 [0.058]	-0.096*** [0.013]	-0.417*** [0.065]	-0.073* [0.041]
<i>Health</i>	0.046 [0.090]	-0.058 [0.088]	0.009 [0.012]	0.079 [0.085]	-0.056 [0.053]
<i>Social Protection</i>	0.023 [0.038]	0.009 [0.037]	-0.047*** [0.014]	-0.088** [0.040]	-0.010 [0.022]
<i>Transport and Communication</i>	0.125 [0.269]	0.125 [0.269]	0.287*** [0.012]	0.525** [0.241]	0.109 [0.130]
<i>Defence</i>	0.228** [0.114]	0.148 [0.114]	0.140*** [0.012]	0.868*** [0.140]	0.188*** [0.066]
<i>Controls</i>	N	Y	Y	Y Extensive	Y Extensive
<i>Fixed Effects</i>	Y	Y	N	N	N
<i>Lag Dependent Variable</i>	Y	Y	Y	N	Y
<i>N</i>	1,002	988	1,016	1,057	1,026
<p>. p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001 All models with PCSE Robust standard errors in parentheses</p>					

Table 7-7 Effect of Political Competition on Spending in Countries with Low Schooling

<i>DV: Investment % in this category</i>	<i>FE</i>	<i>FE</i>	<i>RE</i>	<i>OLS [Pooled]</i>	<i>OLS [Pooled]</i>
<i>Social Infrastructure</i>	-0.270* [0.156]	0.250* [0.104]	-0.071*** [0.015]	-0.472*** [0.138]	-0.071 [0.062]
<i>Education</i>	0.009 [0.050]	0.179*** [0.051]	-0.083*** [0.016]	-0.311*** [0.071]	-0.047 [0.038]
<i>Health</i>	0.069 [0.076]	0.126* [0.076]	-0.016 [0.015]	-0.049 [0.117]	-0.030 [0.051]
<i>Social Protection</i>	-0.049 [0.242]	-0.025* [0.033]	0.039** [0.018]	0.141*** [0.041]	0.033 [0.025]
<i>Transport and Communication</i>	0.194 [0.242]	0.048 [0.224]	0.142*** [0.015]	1.094*** [0.256]	0.112 [0.147]
<i>Defence</i>	0.105 [0.082]	0.091 [0.105]	0.055*** [0.015]	0.044 [0.137]	0.162** [0.075]
<i>Controls</i>	N	Y	Y	Y Extensive	Y Extensive
<i>Fixed Effects</i>	Y	Y	N	N	N
<i>Lag Dependent Variable</i>	Y	Y	Y	N	Y
<i>N</i>	726	716	725	782	750

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

All models with PCSE

Robust standard errors in parentheses

Table 7-8 Effect of Political Competition on Spending in Countries with Low Transparency

<i>DV: Investment % in this category</i>	<i>FE</i>	<i>FE</i>	<i>RE</i>	<i>OLS [Pooled]</i>	<i>OLS [Pooled]</i>
<i>Social Infrastructure</i>	-0.321** [0.153]	-0.021 [0.104]	-0.014 [0.011]	-0.060 [0.113]	-0.028 [0.058]
<i>Education</i>	-0.028 [0.050]	0.088 [0.056]	-0.020 [0.013]	-0.127* [0.066]	-0.011 [0.039]
<i>Health</i>	0.098 [0.078]	0.080 [0.082]	0.019 [0.012]	0.081 [0.084]	-0.042 [0.049]
<i>Social Protection</i>	-0.054 [0.035]	-0.089** [0.037]	-0.060*** [0.013]	-0.178*** [0.042]	-0.037* [0.022]
<i>Transport and Communication</i>	0.092 [0.236]	0.085 [0.197]	0.095*** [0.011]	0.028 [0.223]	0.047 [0.115]
<i>Defence</i>	0.178 [0.092]	0.149* [0.084]	0.144 [0.014]	0.712*** [0.113]	0.195*** [0.056]
<i>Controls</i>	N	Y	Y	Y Extensive	Y Extensive
<i>Fixed Effects</i>	Y	Y	N	N	N
<i>Lag Dependent Variable</i>	Y	Y	Y	N	Y
<i>N</i>	983	975	991	1,008	992
. p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001					
All models with PCSE					
Robust standard errors in parentheses					

Table 7-9 Effect of Political Competition on Investment in MIC with Low Press Freedom

<i>DV: Investment % in this category</i>	<i>FE</i>	<i>FE</i>	<i>RE</i>	<i>OLS [Pooled]</i>	<i>OLS [Pooled]</i>
<i>Social Infrastructure</i>	-0.239 [0.156]	0.089 [0.094]	0.045*** [0.011]	0.420*** 0.096]	0.031 [0.060]
<i>Education</i>	0.010 [0.054]	0.121** [0.052]	-0.019 [0.012]	-0.031 [0.062]	0.0004 [0.037]
<i>Health</i>	0.081 [0.083]	0.109 [0.072]	0.030*** [0.012]	0.129 [0.084]	-0.022 [0.046]
<i>Social Protection</i>	-0.038 [0.033]	-0.073** [0.035]	-0.057*** [0.013]	-0.149*** [0.044]	-0.031 [0.023]
<i>Transport and Communication</i>	0.067 [0.230]	0.063 [0.179]	0.119*** [0.011]	0.255 [0.206]	0.072 [0.110]
<i>Defence</i>	0.104 [0.089]	-0.030 [0.077]	0.099*** [0.011]	0.663*** [0.114]	0.133*** [0.052]
<i>Controls</i>	N	Y	Y	Y Extensive	Y Extensive
<i>Fixed Effects</i>	Y	Y	N	N	N
<i>Lag Dependent Variable</i>	Y	Y	Y	N	Y
<i>N</i>	1,016	1,015	1,019	1,042	1,035
<p>. p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001 All models with PCSE Robust standard errors in parentheses</p>					

7.4. High Accountability Contexts

Table 10 Regression Results: The Effect of Political Competition on Spending in High Accountability Contexts

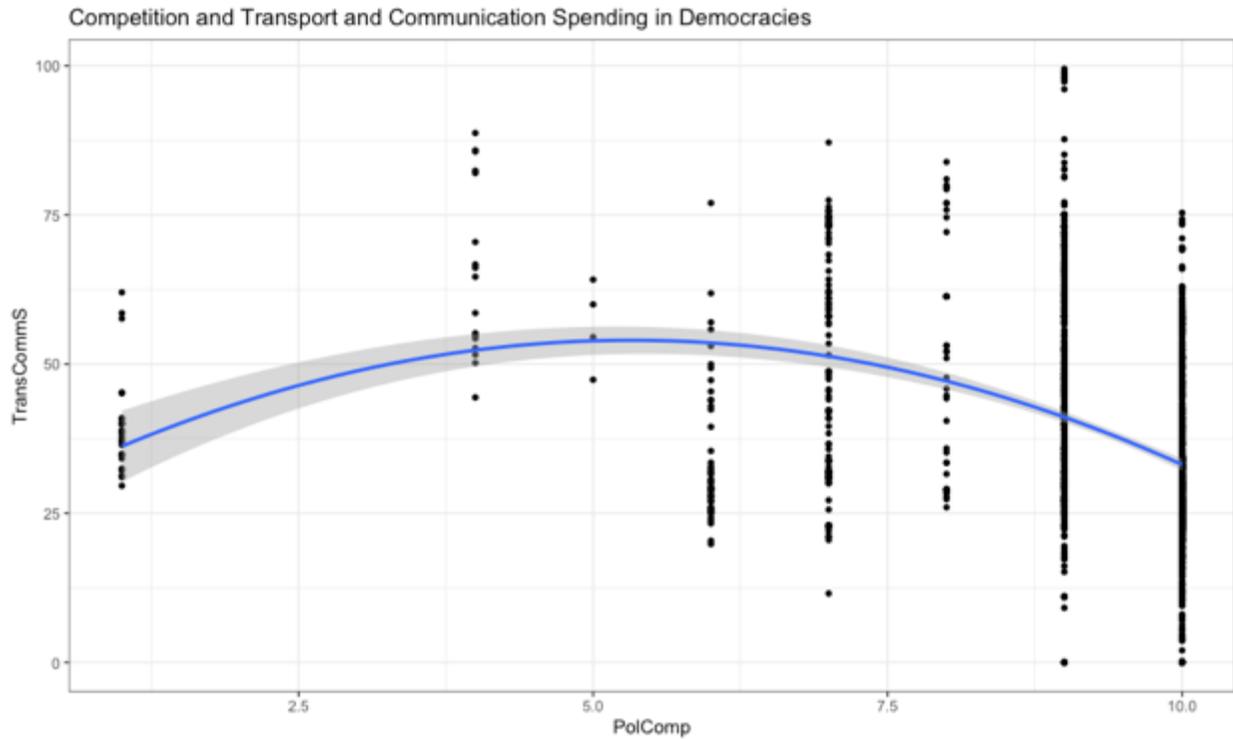
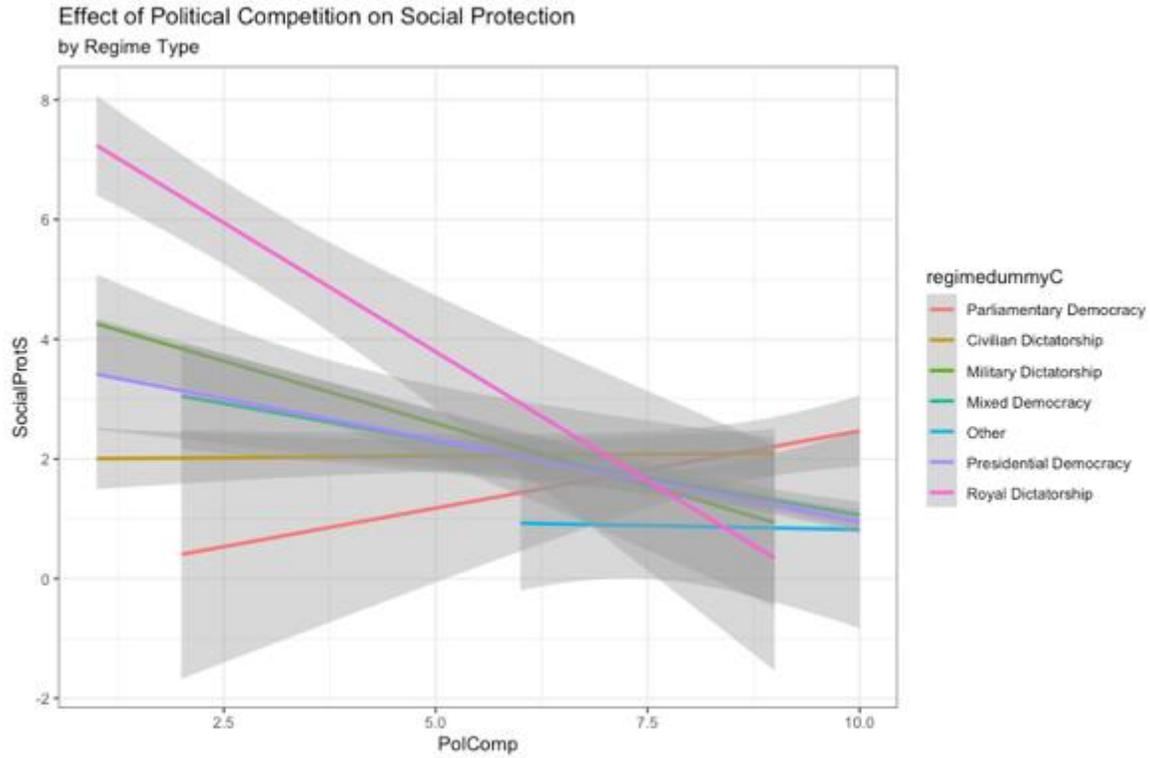
Context	Social Infrastructure	Education	Health	Social Protection	Transport & Communication	Defence
High Executive Constraints	0.031 (0.072)	0.062 (0.070)	0.239* (0.124)	0.077 (0.076)	-0.087 (0.338)	-0.146 (0.159)
High HCI	0.369 (0.259)	0.139 (0.138)	-0.102 (0.139)	0.024 (0.033)	-0.342 (0.388)	0.026 (0.261)
High Newspaper Circulation	-0.023 (0.269)	0.051 (0.242)	0.115 (0.181)	-0.143 (0.115)	-0.559 (0.485)	0.473 (0.361)
High Press Freedom	0.028 (0.186)	-0.008 (0.085)	-0.062 (0.122)	0.077 (0.105)	-0.179 (0.355)	0.195 (0.216)
High Rule of Law	0.676* (0.368)	-0.047 (0.125)	0.100 (0.088)	-0.178** (0.090)	-0.197 (0.481)	-0.033 (0.192)
High Transparency	0.282 (0.229)	0.188* (0.113)	0.161 (0.139)	0.173 (0.115)	-0.539 (0.475)	-0.081 (0.239)
High Years of Schooling	0.194 (0.187)	-0.099 (0.099)	0.356*** (0.103)	0.058 (0.117)	-0.842** (0.361)	0.186 (0.242)

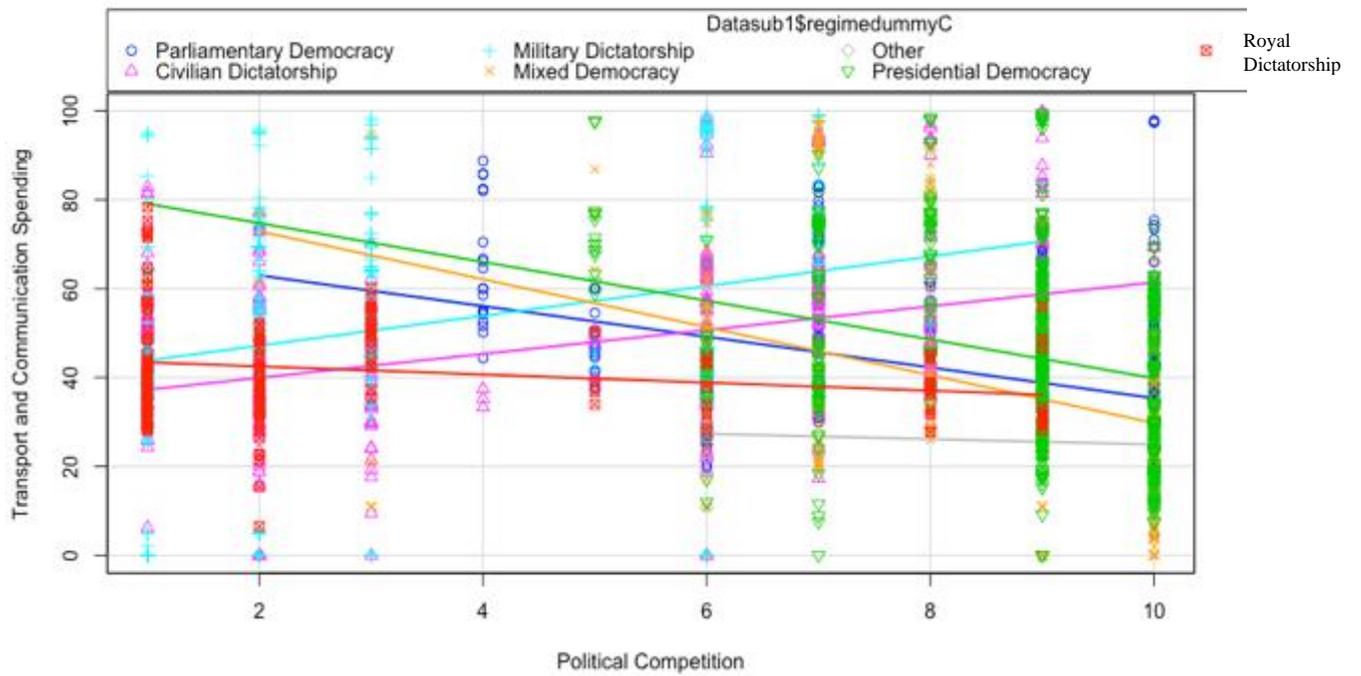
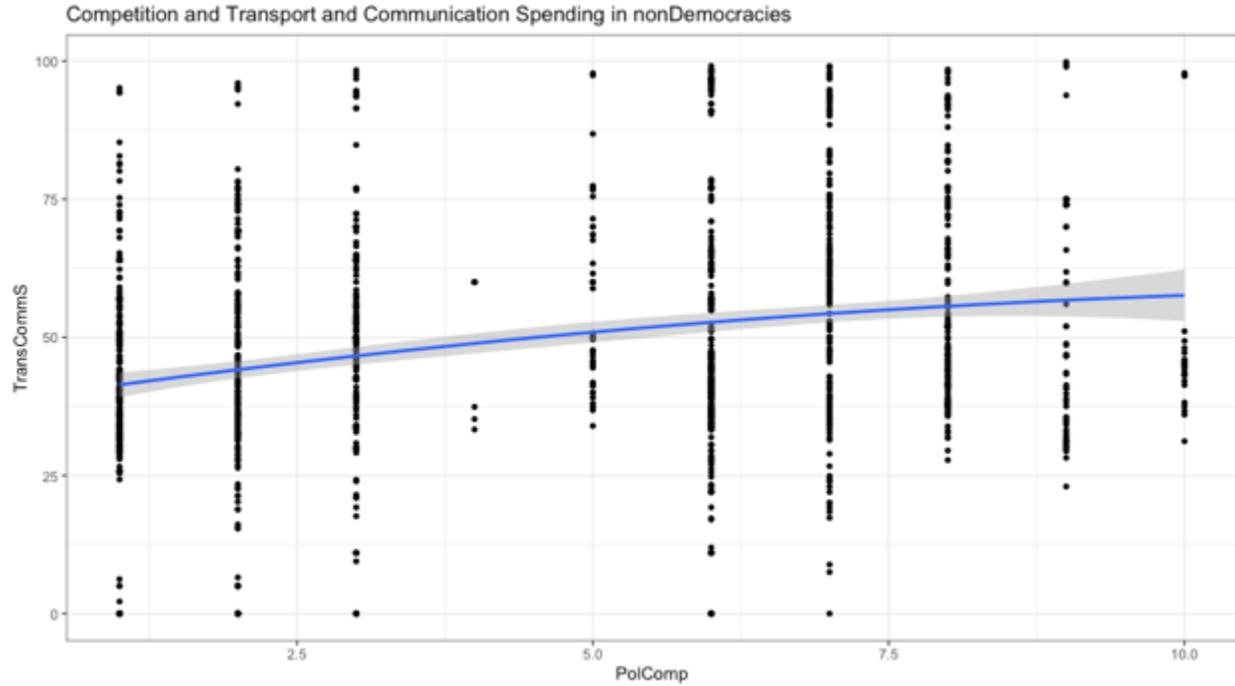
. p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

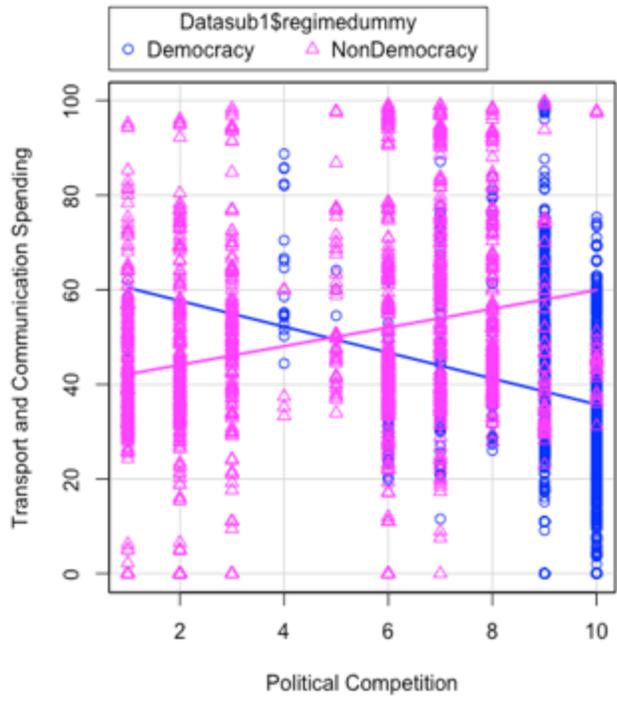
All models with FE PCSE and standard controls

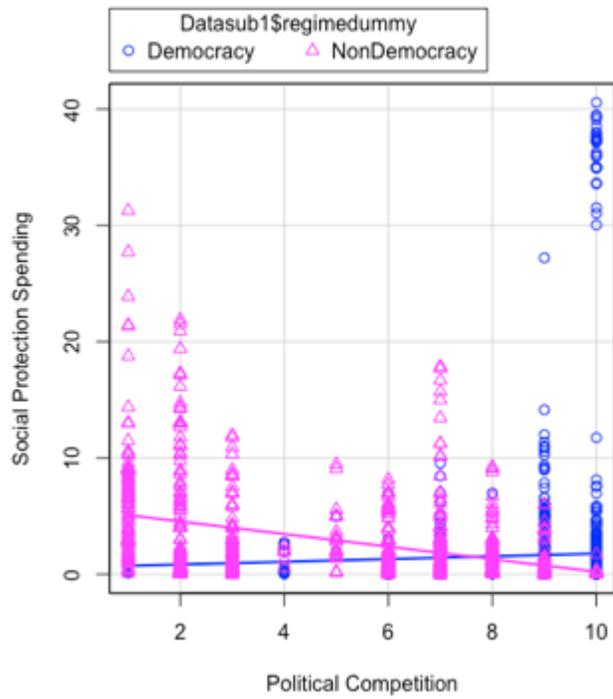
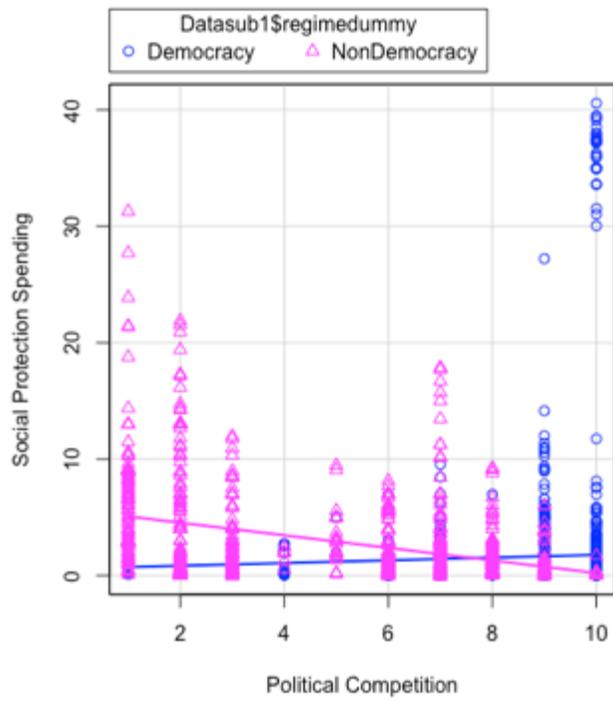
Robust standard errors in parentheses

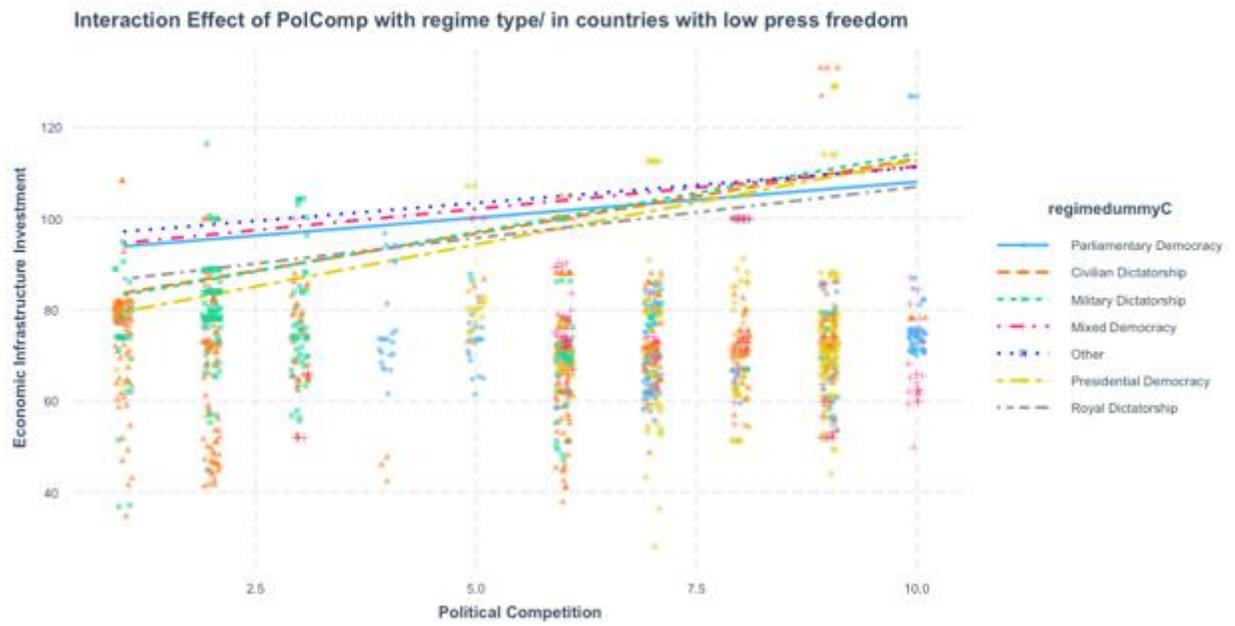
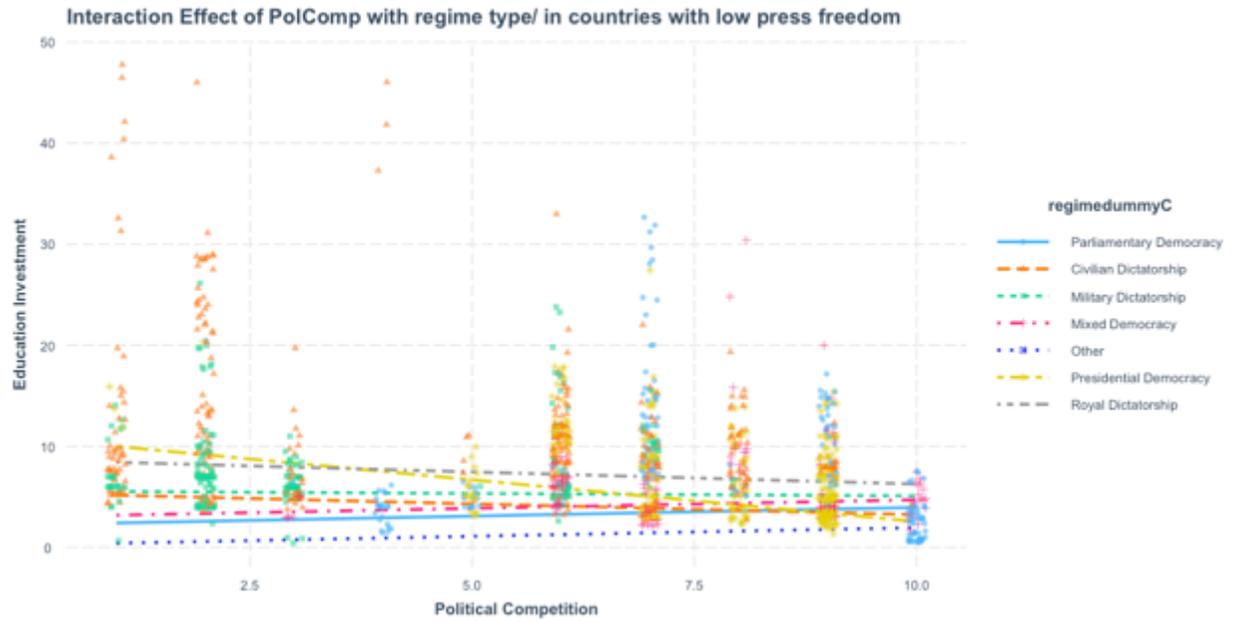
7.5. Further Analysis: Regime Type











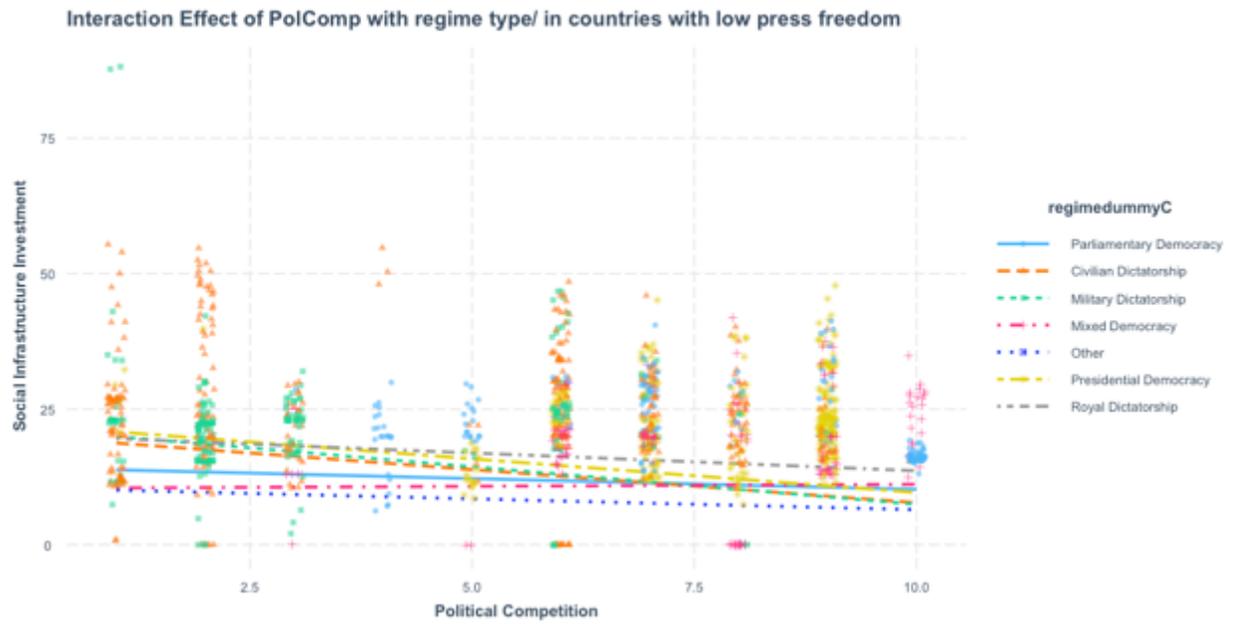


Figure 9 Effect of Political Competition on Transport and Communication Spending for Different Regime Types: High Corruption

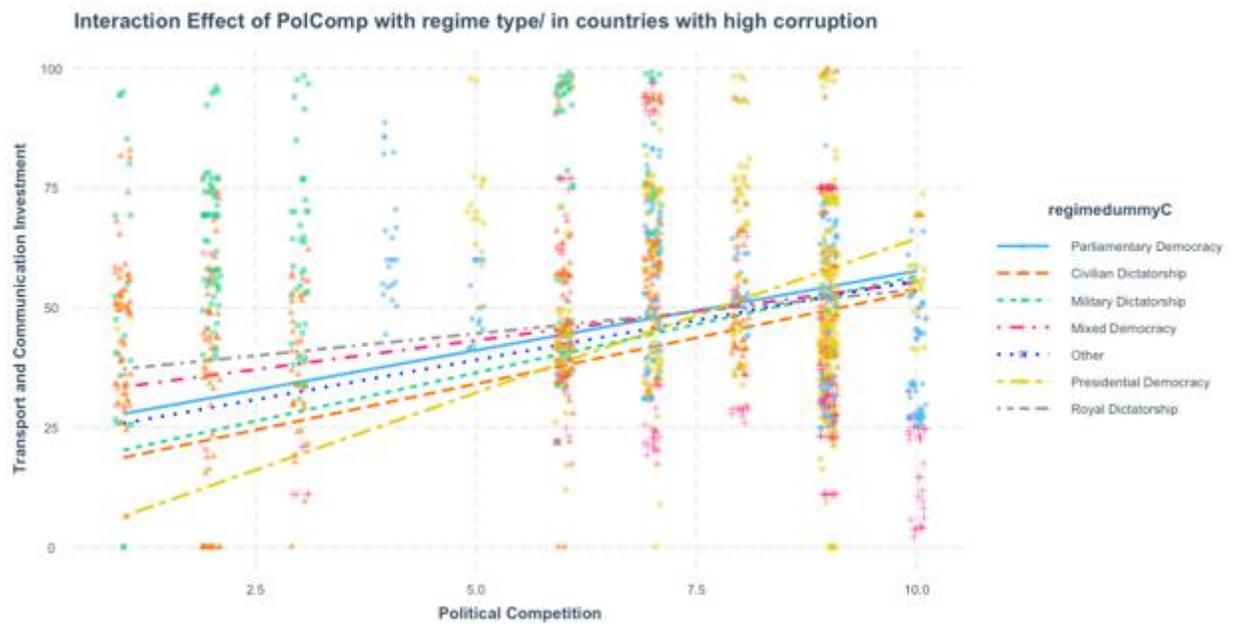
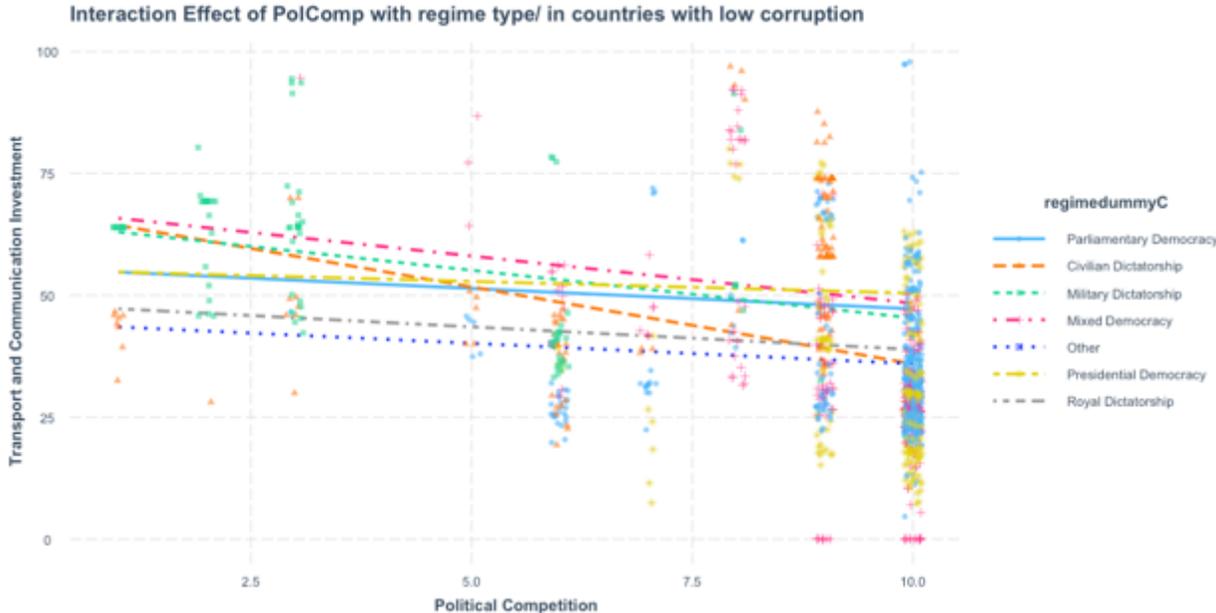


Figure 10 Effect of Political Competition on Transport and Communication Spending for Different Regime Types: Low Corruption



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