Policy Research Working Paper 11279

Institutional Capacity for Policy Implementation

An Analytical Framework

Galileu Kim
Tanu Kumar
Rita Ramalho
Stuart Russell

WORLD BANK GROUP
Governance Global Department
January 2026

Policy Research Working Paper 11279

Abstract

State capacity is an important prerequisite for policy implementation, yet at the country level it is difficult to measure, assess, and reform. This paper proposes a focus on institutional capacity: the ability of public institutions to implement the specific policy mandates for which they are responsible. Based on a review of existing literature, the paper defines the different dimensions that compose institutional capacity and groups them into two cross-cutting categories: organizational dimensions (personnel, financial resources, information systems, and management practices) and governance dimensions (transparency, independence, and accountability). The paper proposes measures for organizational and governance dimensions using existing data, shows intra-institutional variation of these measures within countries, and discusses how new data could be collected for better measurement of these concepts. Finally, the paper illustrates how the framework can be used to diagnose the sources of common problems related to weak policy implementation.

This paper is a product of the Governance Global Department. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/prwp. The authors may be contacted at atgalileukim@worldbank.org, tkumar2@worldbank.org, Srussell2@worldbank.org, and rramalho@ifc.org. A verified reproducibility package for this paper is available at http://reproducibility.worldbank.org, click **here** for direct access.

Institutional Capacity for Policy Implementation: An Analytical Framework[1]

Galileu Kim, Tanu Kumar, Rita Ramalho, Stuart Russell[2]

Authorized for distribution by Chiara Bronchi, Practice Manager, Governance Global Department, World Bank Group

JEL classification: H11, H50, H57, G17.
Keywords: public institutions, institutional capacity, regulatory governance.

[1] The authors gratefully received suggestions and guidance from Arturo Herrera and Chiara Bronchi. The authors are grateful for the comments received from Abebe Adugna, James Anderson, Eric Braian Arias, Alexandre Borges de Oliveira, Paul Phumpiu Chang, Verena Fritz, Rogelio Granguillhome, Alex Habershon, Adrienne Hathaway-Nuton, Zahid Hasnain, Aart Kraay, Greg Larson, Alberto Leyton, Adenike Sherifat Oyeyiola, Ryan Rafaty, Manuel Ramos Maqueda, Roby Senderowitsch, Richard Sutherland, Serdar Yilmaz, and Laura Zoratto. The authors are also grateful for the comments received from the participants of different seminars and workshops where the paper was discussed, including Asya Akhlaque, Tim Besley, Edouard Al-Dahdah, Shanta Devarajan, James A. Brumby, Oscar Calvo, Jeff Chelsky, Serena Sara Daniela Cocciolo, Dan Foarta, Helene Grandvoinnet, Deborah Hannah Isser, Nona Karalashvili, Phil Keefer, Phil Krause, Marco Larizza, Norman Loayza, Luis Martinez, Martha Martinez Licetti, Snezana B. Mitrovic, Francesca Recanatini, Asli Senkal, Thiago De Gouvea Scot de Arruda, Sylvia Solf, and Michael Woolcock. The authors are also grateful for excellent research assistance by Awais Ahmed Khuhro and Ines Dezcallar Miranda.

[2] The World Bank. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent. The authors may be contacted at rramalho@ifc.org, galileukim@worldbank.org, srussell2@worldbank.org and tkumar2@worldbank.org.

1. Introduction

Policy implementation often falters in governments across the developing and developed world (Dincecco 2017, Evans and Rauch 1999, Acemoglu et al. 2005, Besley and Persson 2009, Dincecco and Katz 2016). Implementing organizations may be insufficiently coordinated, lack sufficiently specialized personnel, or require additional information to inform the design of highly technical and context-specific aspects of policy implementation. Even if personnel have sufficient skills, resources, and management, they may shirk their duties, misuse resources, and perform their duties in a manner that privileges their own private benefits over the public interest (Gailmard and Patty 2012). These implementation problems can lead to poor outcomes, as a litany of promised policies and development projects are not completed in practice (Williams 2017). State capacity – or the ability of a government to realize the specific mandates, policies, or projects for which it is responsible – has therefore long been a focus for academics and policy makers (Mann 1984, Soifer 2008, Fukuyama 2013, Hanson and Sigman 2021, Berwick and Christia 2018, Di Maro et al 2019).

Yet the concept of state capacity, particularly when defined for an entire country, is imprecise. It can serve as a catch-all term referring to the multiple political and administrative institutions that implement policy. It can therefore be difficult to measure, assess, and reform (Tendler 1997, Berwick and Christia 2018, Williams 2021). As a result, policy makers and practitioners are unable to adequately diagnose capacity constraints and propose specific policies or reforms that could address them.

Actionable assessments to improve policy implementation require analysis at a smaller unit of analysis than the state as a whole. States comprise multiple ministries, departments, and agencies. Empirical research across the social sciences has documented significant variation in the capacity of different public sector organizations to implement their mandates even within the same government (Bersch, Praça and Taylor 2017, Rasul, Rogger and Williams 2021, Fenizia 2022). This empirical work highlights variation in what we call institutional capacity, or the capacity of public institutions. We define these "public institutions" as *public sector organizations mandated with policy implementation, as well as the rules and processes that govern this organization*.

In this paper, we develop a framework for diagnosing issues of institutional capacity that directly affect policy implementation. According to our framework, the extent to which an institution fulfills its policy mandate is a function of its structure and incentives. We analyze institutional capacity along four organizational dimensions and three cross-cutting governance dimensions. First, because public institutions are comprised of multiple individual actors with different incentives and principals (Williams 2021), we argue that how these multiple actors are organized is fundamental to implementation. We define the *organizational dimensions* of public institutions as personnel, financial resources, information systems, and management practices. We detail how the literature has argued each shapes policy implementation.

We are interested in not only whether a policy will be implemented at all, but also whether it is done so in a way that is aligned with the broad public interest. We apply the canonical literature on principal-agent relationships (Arrow 1984, Holmstrom 1979) to our definition of public institutions and highlight three *governance dimensions* – accountability to the public, independence from undue private and political influence, and transparency – that align policy implementation with the public interest. These governance dimensions are principles: they require civic participation and robust mechanisms to ensure that they are upheld in practice. These governance dimensions can be applied to the organizational dimensions, creating a framework of two cross-cutting sets of dimensions.

To demonstrate how future researchers and practitioners might apply our framework to analyze individual public institutions, we propose a set of variables to measure the organizational and governance dimensions of an institution. Finally, we illustrate how the framework can be applied to diagnose common problems of policy implementation, such as failures of department coordination, shirking, and inadequate expertise.

We see our work as part of a recent movement for increased theoretical and methodological precision when describing state capacity (Centeno, Kohli and Yashar 2017, Williams 2022). Theoretically, it refocuses the discussion of state capacity around the public institution, bringing an abstract concept to the public sector organizations tasked with the day-to-day work of policy implementation. We further bridge literature on public and private sector management with research on governance and accountability to shed light on the structures that shape the behavior of those working within these institutions. Finally, by describing how each of the dimensions might be measured, we aim to facilitate both data-driven policy making to improve institutional capacity and academic research relying on the comparison of public institutions within and across countries.

2. Defining public institutions and institutional capacity

There is widespread evidence that institutions and state capacity play a key role in shaping economic development (North 1990, Besley, Burgess, Khan and Xu 2022). In this section, we build upon academic and policy literature on institutions and state capacity to propose a definition of institutional capacity that focuses on the ability of government bodies to implement policies. This analytical move highlights the fact that the state is a collection of organizations, each of which must be well structured and managed to succeed. Focusing on implementing institutions also creates opportunities for a comparative approach to study variation in institutional capacity within the same government.

Public institutions as the unit of analysis

Our starting point is the canonical definition of institutions as the "rules of the game in a society, or more formally, the humanly devised constraints that shape human interaction" (North 1990, La Porta, Lopez-de-Silanes and Schleifer 2008, Besley and Gathak 2009, Dell 2010, Michalopoulos and Papaioannou 2013, Baland et al 2020). Yet rules often require a public sector organization to design, implement and enforce them (North 1990). In addition, rules are designed, contested, and changed over time. In political science, these issues of enforcement and stability are central to the discussion of political institutions (Levitsky and Murillo 2009). To explore these dimensions, institutions must be considered in the context of organizational actors and their incentives (Mahoney and Thelen 2010).

When defining public institutions, we therefore focus not only on the rules themselves but also the organizations responsible for the design and enforcement of rules: public sector organizations. The extent to which public sector organizations are capable of implementing and enforcing rules and laws is one way of conceptualizing and measuring the strength of institutions and, relatedly, state capacity itself (Levitsky and Murillo 2009, Williams 2021). At the same time, rules and laws capture only a subset of policy mandates: governments provide public goods and services like health care and education, procure from the private sector, and much more. The delivery of these goods and services involves concrete outputs such as school infrastructure and pharmaceuticals, as well as services that go beyond the scope of rules and laws. We therefore expand our analytical focus beyond rule enforcement to the diverse functions of government included in public policy.

We define public institutions as *public sector organizations mandated with policy implementation, as well as the rules and processes that govern these organizations.* Examples of public institutions included in our definition are ministries, departments, agencies, state-owned enterprises, and other public sector organizations responsible for implementing policy mandates.

From state capacity to institutional capacity as the outcome of interest

Our definition of institutional capacity builds on the concept of "state capacity" common in the political science, sociology, and economics literature. State capacity is often defined following Mann's (1984) definition of infrastructural power as "the capacity of the state to […] implement logistically political decisions throughout the realm." Soifer (2008) further disaggregates state capacity into three elements: the national capabilities of the central state, the effect or weight of the state on society, and the territorial reach of the state. Many other scholars have built on these conceptualizations and offered similar macro-historical definitions of state capacity (Fukuyama 2013, Hanson and Sigman 2021). Cross-national studies have demonstrated a robust positive correlation between various measures of "state capacity" and economic development (Evans and Rauch 1999, Acemoglu et al. 2005, Besley and Persson 2009, Dincecco and Katz 2011, Dincecco 2017).

Yet a growing empirical literature documents variation in institutional capacity within the same government (Gingerich 2013, Azulai et al 2020). Recent studies of procurement institutions, for instance, describe vast differences in prices for similar contracts across public institutions in a single government (Bandiera et al 2021, Best, Hjort, and Szakonyi 2023). Fenizia (2022) similarly demonstrates large differences in the human resources management practices of social security institutions in Italy, ultimately showing that these practices affect the processing rate of social security claims. Likewise, other studies show large differences across institutions within the same government in project completion rates and the overall quality of public services (Williams 2017; Rasul and Rogger 2018; Rasul et al 2021; World Bank 2022). This within-country, across-institutions sometimes manifests as "islands of excellence" or "pockets of effectiveness" in an otherwise low-capacity setting (Bersch, Praça and Taylor 2017, McDonnell 2017).

Building on these studies, we emphasize that measures of capacity should operate at the level of public institutions rather than the state as a whole. We therefore move from state to institutional capacity, which we define as the *ability of a public institution to implement the projects or policies defined in its policy mandate*. Increasing institutional capacity can thus be understood as decreasing the gap between *de jure* policy mandates and *de facto* policy implementation. The definition of institutional capacity that we propose is closely aligned to what Andrews, Pritchett and Woolcock (2017) refer to as capability or "the ability of an organization to equip, enable, and induce their agents to do the right thing at the right time to achieve a normative policy objective" (95). More colloquially, one can understand institutional capacity as the ability of public institutions to effectively "get things done" (Foarta and Ting 2023) and fulfill their mandate.

3. Analytical framework: The organization and governance of public institutions

We develop an analytical framework to aid policy makers and researchers in diagnosing specific and actionable weaknesses in institutional capacity. There are two types of dimensions of an institution that we analyze. The first type corresponds to a set of organizational dimensions (personnel, financial resources, informational systems, and managerial systems) and the second is a set of governance dimensions (transparency, independence and accountability). Organizational dimensions are internal to the public institution and represent the core "nuts and bolts" that public sector organizations need to function. This aspect of the framework is based on growing evidence that the organizational structure of a public institution affects its capacity to implement policies (Pepinsky, Pierskalla and Sacks 2017; Bertelli et al 2020). In contrast, governance dimensions are external-facing, capturing how the institution relates to other institutions, politicians, firms, civil society, and citizens more broadly. They structure whether actors within the institution are incentivized to fulfill the aims of external actors.

There are two aspects of the political context that we acknowledge but do not explicitly tackle in our framework. The first is the political process that determines the origins of the organizational and governance dimensions. For example, the financial resources available to a public institution in any given year are a function of the previous year's politics as translated through the budgetary process. Second, politics shape the broader set of incentives, beyond those created by the institution itself, of those working within the institution. For example, bureaucrats are often subject to political influence and may make decisions on the basis of bribes, patronage, and personal connections (Dahlstrom and Lapuente 2022). The governance dimensions explicitly acknowledge these possibilities and should be interpreted as principles aimed at aligning the incentives of those within an institution with the public interest. As we explain below, the organization and governance dimensions are cross-cutting in that we argue that an institution's organizational components must be well-governed so that they work in the public interest.

Particularly because institutional capacity is often the result of a political process, we do not advocate for a set of best practices or institutional forms. The process of increasing institutional capacity is also a slow, complex, and iterative process for which there is no perfect intervention (Andrews, Pritchett, and Woolcock 2017). In fact, Andrews, Pritchett, and Woolcock (2017) discuss how isomorphic mimicry – the tendency of states to mimic the processes, rules, and systems of governments they see as successful – can unintentionally backfire and undermine state capacity. The framework instead is aimed at aiding researchers and policy makers in diagnosing specific aspects of weak institutional capacity and using their own knowledge of political context and tradeoffs to make recommendations.

3.1. Organizational dimensions

Though they are discussed one-by-one for clarity below, the organizational dimensions are connected. For example, an institution's *management practices* are likely to shape the career, skills, and compensation of its *personnel*. For example, managerial turnover can have downstream effects on bureaucratic turnover, as managers appoint new staff aligned with their policy priorities. Similarly, strong *information system*s may enable effective management of *financial resources*. In most cases, implementation failures occur because of problems related to many of these dimensions rather than a problem with one single factor.

Personnel

In the personnel dimension, we consider how bureaucratic staff shape institutional capacity. We include public sector officials throughout the administrative apparatus, ranging from high-level politically appointed ministers or directors to low-level frontline service providers such as teachers and nurses. We also include the "middle layer" of civil servants who occupy most positions in ministries and public sector agencies (Rogger 2017). There is a large literature in policy and research on how the quality of an institution's personnel affects overall institutional capacity (Hasnain et al 2019, World Bank 2021), service delivery (Akhtari, Moreira and Trucco 2022), procurement (Best, Hjort, and Szakonyi 2023) and corruption (Chalendard et al 2023).

We unpack the personnel dimension into three components: (a) career, which comprises career lifecycle (recruitment, promotion and dismissal) as well as career tracks (e.g., specialist versus generalist); (b) skills, which comprises the educational and professional background of staff, alongside training; and (c) compensation, which comprises the monetary and non-monetary benefits with which staff are compensated.

The career component covers the entire trajectory of civil servants, including their recruitment, promotion and dismissal. The process through which civil servants are recruited and whether it is sufficiently meritocratic, for instance, is widely considered to select bureaucrats of different abilities and public service motivation (Finan, Pierskalla, and Sacks 2017, Pepinsky et al 2017). Once recruited, civil servants generally advance through the administrative hierarchy and gradually rise in rank or status (Meyer-Sahling, Mikkelsen, and Schuster 2020). Careers in the public sector are often designed around occupational roles (e.g., budget specialist), with occupation-specific rules governing recruitment and promotion, for example.

Next, we turn to the skills of civil servants, which include their education and training. A desirable feature of the civil service is the attraction and retention of specialized experts (Gailmard and Patty 2007). Greater competence – measured through greater education and skills attainment – is typically associated with greater performance (Decarolis et al 2020; Best, Hjort, and Szakonyi 2023). Even within one country, the educational attainment of public servants varies across government functions and is closely connected to the method in which the bureaucrat was hired (Colonnelli, Prem, and Teso 2020). Importantly, while many studies focus on the educational attainment of bureaucrats at their moment of entrance into the civil service, Azulai et al (2020) suggest that capacity training programs can improve the performance of extant bureaucrats.

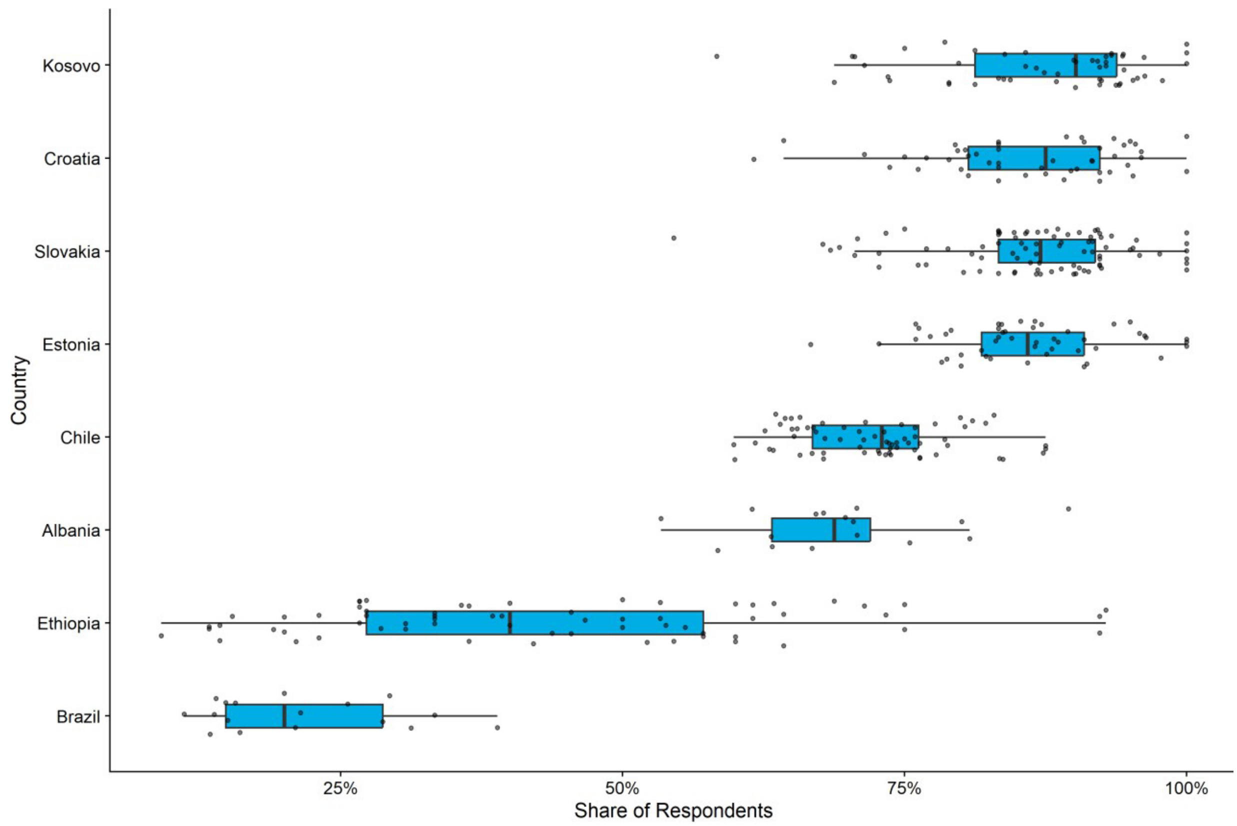
Finally, compensation can influence officials' performance. Compensation shapes the quality of candidates that join the public service (Finan, Olken and Pande 2017). Salary progression throughout a career can present individual bureaucrats with strong incentives to improve performance once hired (Deserrano et al 2025). Performance pay for civil servants is generally seen to have overall positive effects (Pierskalla, Hasnain and Manning 2012). However, performance pay is generally linked to sectors such as service delivery (e.g., education and health), where outputs and outcomes are more directly observable (e.g., student learning outcomes). As such, it is not clear whether performance-based compensation would translate to sectors where tasks are complex and less measurable, such as in the core areas of the civil service (e.g., administrative tasks).

While there may be formal rules regarding career, skills, and compensation, informal and political processes are also important to consider. The staffing of public institutions, for example, is subject to political discretion and even capture by firms (Dal Bó 2006). High-level officials are frequently appointed by politicians, and these appointments can be characterized by patronage (Colonelli et al. 2020; Toral 2023). As we discuss below, political appointments are a key mechanism to keep public institutions accountable to the public interest, yet this accountability should also be balanced by mechanisms to keep appointees independent from undue private interests.

Figure 1 illustrates how the personnel component of public institutions can vary within countries. It uses data from the Global Survey of Public Servants to demonstrate variation in recruitment patterns across countries and their own institutions. Countries such as Kosovo and Croatia predominantly hire public servants through an interview process, while institutions in Brazil tend to rely on written exams. Institutions in Ethiopia vary widely in their recruitment practices.

Figure 1. Within country variation in the personnel dimension of public institutions

Panel A: Career, percentage of public servants recruited through an interview



Panel B: Compensation, institutional-level variation

Source: Global Survey of Public Servants. Each black dot represents an institutional-level share. Survey data collected between 2016-2019, but date of collection varies by country.

Financial resources

The financial resources dimension refers to the funds available to public institutions as well as the public financial management (PFM) processes through which those funds are spent. Many governments do not execute their budgets as originally planned, meaning that both underspending and overspending are common (Addison 2013). Budget execution is often hampered by "passive waste" or inefficiencies that occur because of excessive red tape, ineffective training, or the general lack of incentives for officials to minimize costs (Bandiera, Prat, and Valletti 2009). Similarly, many government projects in low- or middle-income contexts are never completed because of repeated interruptions or coordination problems analogous to passive waste (Rasul and Rogger 2018, Williams 2017). The financial resources dimension therefore goes beyond whether public institutions have sufficient resources to realize their mandates. It also captures the extent to which those resources are managed and executed in a timely manner.

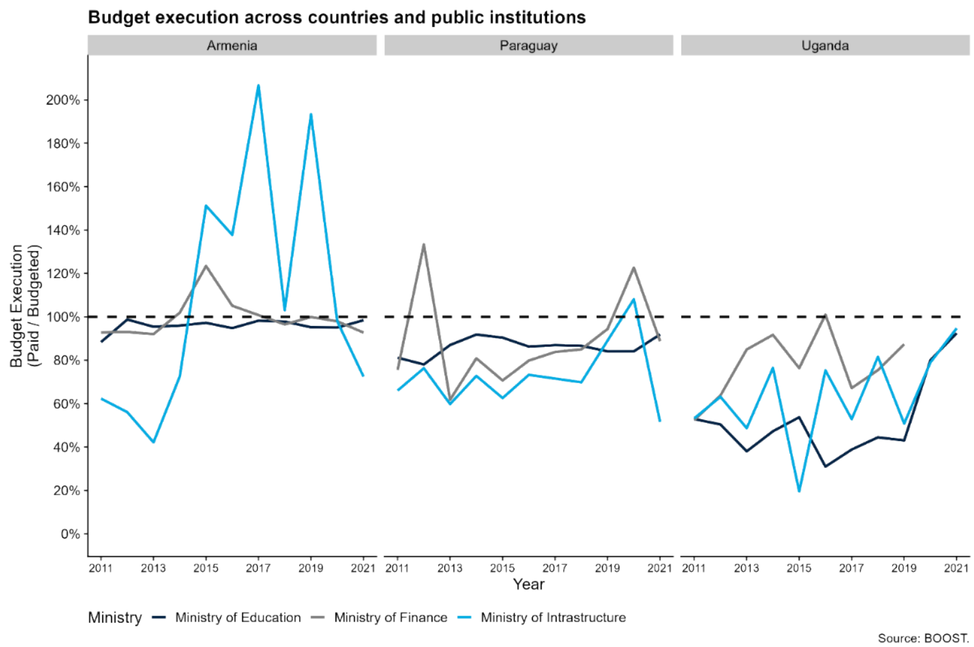
While many international PFM assessments exist – such as the Public Expenditure and Financial Accountability Framework (PEFA) or the Open Budget Index (OBI) – they often emphasize whether the "form" of PFM processes reflect international best practices (Andrews et al 2014). We are interested in the *de facto* function – rather than the *de jure* form – of these PFM practices. Consider budget transparency, for instance. If citizens and civil society organizations have timely and consistent access to budget information, the specific legal frameworks that mandate that access are less important. In other words, institutions may achieve the same PFM functions through different PFM forms. What matters is whether public institutions draft credible budgets, make prudent fiscal decisions, and access reliable resource flows.

To date, there is limited research on the origins of PFM and predictors of budget execution. Nevertheless, there is some evidence that these too may be shaped by issues of political economy. Addison (2013), for example, finds that budget execution is correlated with a country's demographic characteristics and presence of democratic institutions. The adoption of PFM reforms is often a strategy for government elites to send a signal or message of legitimacy and progress to external audiences like donors or internal audiences like civil society organizations (Andrews 2013). Whether these reforms are followed in practice may depend on short-term political pressures that political elites face to reward supporters with positions in the public sector, to target spending to strategic districts, or to enforce budgetary discipline more broadly (Golden and Min 2013).

Figure 2 uses the World Bank's BOOST public expenditure database to illustrate within-country variation in budget execution.[3] It focuses on three key public institutions in Armenia, Paraguay, and Uganda: the finance ministry, the education ministry, and the infrastructure ministry. Several important patterns emerge. First, budget execution in general is consistently lower in Uganda than Armenia and Paraguay. However, even beyond that general pattern, there are considerable differences in execution across institutions within a single country. The budget execution of the infrastructure ministry in Armenia is highly variable, likely because large capital investments are slow to execute. Armenia's finance and education ministries have expenditures that are much more closely aligned with their budget. Interestingly, in both Armenia and Paraguay, the education ministry's budget execution is remarkably consistent over time. This might be because teacher salaries represent a significant share of expenditures in the education sector, and they are difficult for governments to delay paying.

[3] The BOOST data contains highly disaggregated budget and expenditure data for a range of different countries. This microdata is derived from national systems – such as financial management information systems (FMIS) – that organize public expenditure information within finance ministries and national treasuries. The data include information on budgets and actual expenditures, generally disaggregated to the line-item level. For each country, these line-item values are generally categorized into three different categories: organizational classification (the budget unit incurring the spending, e.g., Ministry of Transport), functional classification (the purpose of the expense, e.g., social services), and economic classification (the type of expense, e.g., wages).

Figure 2 Measuring institutional variation in financial resources



Source: BOOST data on budget execution across key public institutions in Armenia, Paraguay, and Uganda.

Information systems

The information systems dimension refers to whether and how government technologies are used by public institutions in their routine operations. Digitizing core government functions such as budgeting, human resource management, or procurement is widely considered to bring efficiency increases by minimizing delays, preventing corruption, and facilitating access to information. In public procurement, for instance, Lewis-Faupel et al. (2016) demonstrate that the introduction of e-procurement systems in India and Indonesia facilitated the entry of higher-quality government contractors and thus more effective contract implementation. Likewise, the introduction of an e-procurement system and the digitization of government contracts in Bangladesh was associated with lower prices and faster tender processing times (Blum et al 2023).

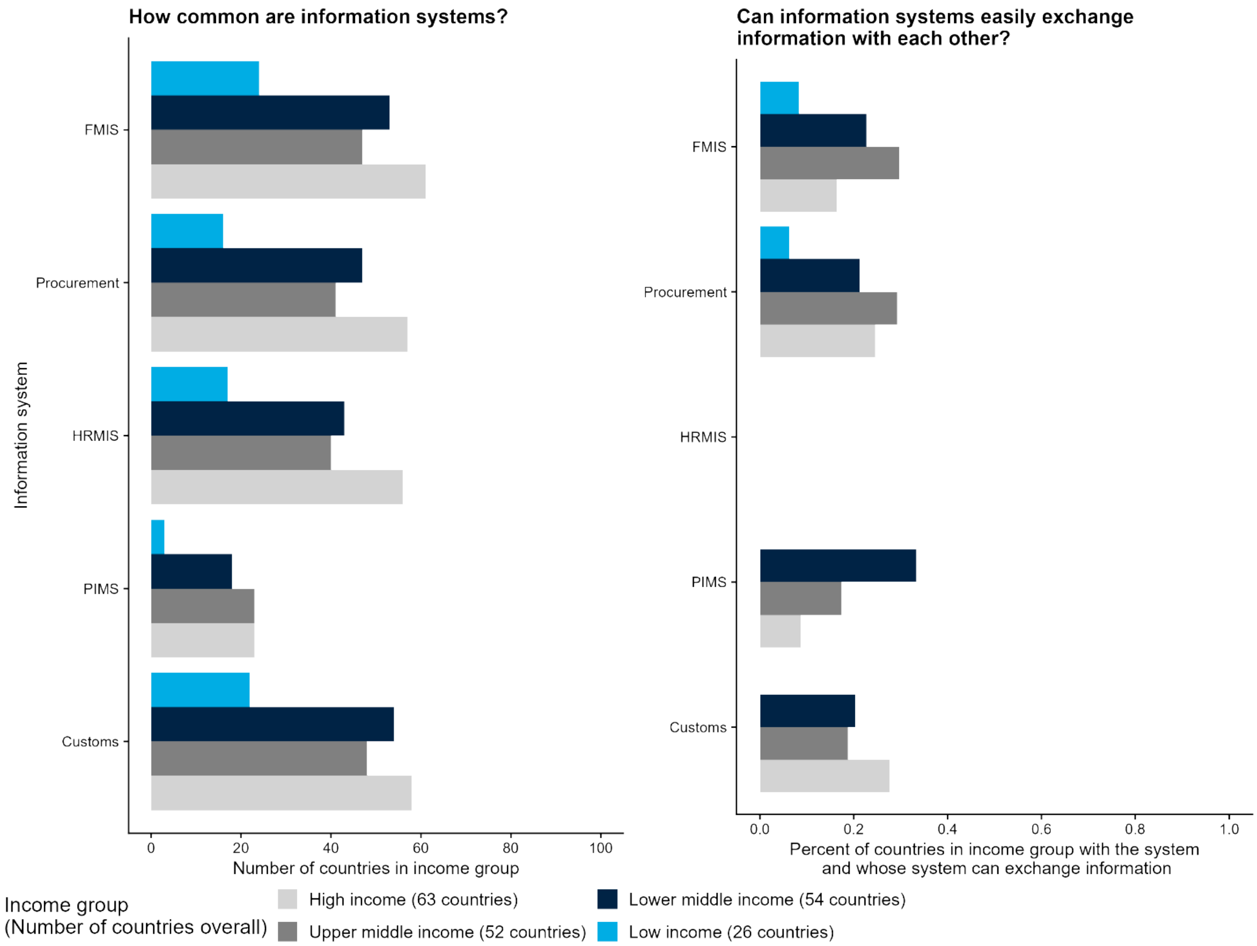
Beyond core processes like budgeting or procurement, this dimension also captures the extent to which governments collect and use vital information about the populations they govern or employ. Service delivery institutions, for instance, may benefit from biometric monitoring systems that enable managers to more accurately capture the attendance or performance of frontline workers such as teachers or nurses (Dhaliwal and Hanna 2017, Callen et al 2020). Social protection programs and tax collection require the construction of comprehensive, individual-level registers (Hanna and Olken 2018, Bowles 2024). Technology may help improve how these registers are constructed and the extent to which their accuracy depends on the personal discretion of individual bureaucrats (Knebelmann, Pouliquen, and Sarr 2023).

Of particular importance is not whether such systems simply exist, but whether they are actively and effectively used by officials. For instance, a growing literature finds that officials at both high and low levels face incentives to misreport basic metrics (Eutsler et al 2023; Liu 2023; Sandefur and Glassman 2015; Trinh 2019). These incentives highlight the close connection between the information system and the transparency principles, as discussed below. In addition to institutional variation in collecting and publishing data, institutions may further fail to coordinate and share data. Soujaa, Nukpezah, Benavides (2021) highlight such a collective action problem among public health and emergency management professionals in the United States during the Ebola outbreak. Efforts to improve information systems must therefore consider the incentives and capabilities of the officials that use them.

We analyze information systems using the World Bank's GovTech Maturity Index, a survey of governments' use of digital technology and other systems. The survey assesses countries' access to and use of eight core systems: financial management information systems (FMIS), customs systems, debt management systems, payroll systems, public procurement systems, human resource management information systems (HRMIS), treasury single accounts (TSA), and public investment management systems (PIMS). The left panel in Figure 3 shows the availability of different systems within governments. While many countries have FMIS or customs systems, fewer have PIMS. This is true even for upper- or middle-income countries.

Even when countries have core systems, they are often not designed to reach their full potential. While the left panel in Figure 3 shows that many countries have the necessary hardware and software for MIS, the right panel underscores that such systems are often not used in practice – or at least are not used to their fullest extent. System interoperability varies across systems and country income levels. For instance, only about half of e-procurement systems in low- and lower-middle-income countries can easily exchange information with other government technologies. Similarly, while most countries have an HRMIS system, the absence of HRMIS bars in the right panel indicates that these systems are not integrated with other government systems. Therefore, while information systems are present in many public institutions around the world, there is clear room for improvement with respect to their integration and use.

Figure 3: Measuring institutional-level variation information systems



Source: GovTech Maturity Index (GTMI), 2022.

Management practices

Management practices establish how strategies are set, tasks are delegated, decision-making is allocated, and actions are coordinated (Bloom and Van Reenen 2007, 2010, Quinn and Scur 2021). It also includes more informal aspects such as esprit de corps, norms, and trust between public officials (Keefer and Scartascini 2022). Long recognized by the literature on private sector productivity, the quality of management practices in the public sector is also an important determinant of government productivity and performance. Public institutions with higher quality management, for instance, see greater rates of project or task completion (Rasul and Rogger 2018).

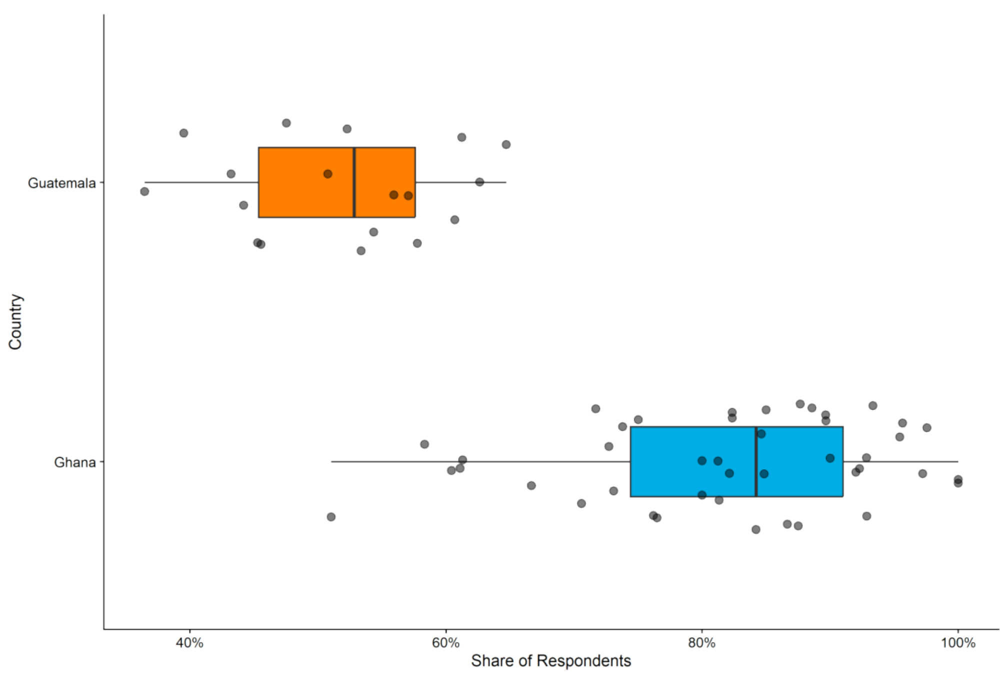
Effective management practices balance the autonomy and discretion of public officials with monitoring and evaluation. As in the private sector, managers in the public sector must delegate tasks to their subordinates and then monitor or oversee the performance of those tasks. Though it depends on the type of task in question, public sector management practices are often overly focused on monitoring and provide limited autonomy or discretion (Rasul, Rogger, and Williams 2021). Excessive monitoring can decrease motivation by reducing latitude for discretion. In addition, a compliance-centered management system may reduce incentives for innovation (Andrews et al 2022). Therefore, under certain conditions, autonomy can increase performance: Bandiera et al (2021) report that increasing the autonomy of procurement officers generally reduces contract prices more than offering performance pay. At the same time, monitoring might inhibit bureaucratic autonomy to the point where officials are consumed by fulfilling compliance-related tasks rather than policy implementation. In such cases, public sector bureaucrats may suffer from "bureaucratic overload" in which the accumulation of policies overburdens officials with too many responsibilities relative to the resources they have available (Dasgupta and Kapur 2020). The trade-off between autonomy and monitoring is context specific and depends on a given task's complexity and a given bureaucrat's ability to implement it.

Organizational culture, the informal aspects of management practices, are also crucial for implementation. While strategic decision-making and monitoring processes refer to formal rules and processes, a public institution's performance is also strongly shaped by group norms (Honig 2022, Gailmard 2010, Grindle 1997, Lourenco et al 2022 Ritz et al 2016). A related body of work focuses in particular on officials' motivation and how it can be shaped by different aspects of institutional design and culture (Banuri and Keefer 2016; Honig 2024; Mangla 2022; Rogger 2017). While the framework takes "culture" at the societal level as fixed, organizational culture can differ across institutions in the same country and evolve over time. For instance, public sector managers can inspire greater motivation in their personnel through non-financial appeals like appeals to the public interest (Honig 2024). This type of pro-social motivation has been shown to improve job performance in a wide range of settings (Callen et al 2025). Moreover, given that policy implementation requires teamwork and cooperation, the degree of trust between public officials and their colleagues is also important.

Figure 4 uses data from the Global Survey of Public Servants (GSPS) to demonstrate variation across institutions in the Governments of Guatemala and Ghana with respect to target-setting.

Figure 4. Measuring management practices

Institutional-level variation in institutional target-setting (Guatemala and Ghana)



Sources: Global Survey of Public Servants. Each black dot represents an institutional-level share. The survey question is: "Does your organization have a clear set of targets derived from the organization's goals and objectives"? Survey data collected between 2018-2019, but date of collection varies by country.

Management practices ultimately reflect how a bureaucracy is structured, i.e. its hierarchies, policies, and delegation of responsibilities. Because this structure creates entrenched interests, it is usually difficult to change, and structures might exhibit significant path dependence. In contexts free from colonial rule, bureaucratic structure might reflect a bargain arising out of the same class conflict that led to the emergence of the modern state. In post-colonial settings, administrative structure is much more likely to reflect practices of the colonial empire inherited at independence (Vogler 2019). Specific management rules and policies might originally have served the empire's interests but may have since created a different set of interests. For example, in the Indian context, frequent bureaucratic transfers were initially intended to prevent tax collectors from "going native," or becoming embedded in the communities from which they were meant to extract resources. In post-colonial India, this dynamic is no longer relevant in the same way. However, in the modern day, the threat of bureaucratic transfers is a method by which politicians exert control over administrative officials (Iyer and Mani 2012; Muralidharan 2024).

3.2 Governance dimensions

Even institutions with effective staff, well-executed budgets, and sophisticated information and management practices can fail to satisfactorily fulfill their mandates in a way that serves the general public. Common problems include excessive political interference, misallocation of resources (through kickbacks or other forms of corruption), and institutions "drifting" from their policy mandates to serve other purposes. We therefore emphasize the importance of three cross-cutting governance dimensions: accountability, independence, and transparency.

These principles arise from the fact that we see institutional capacity as characterized by a principal-agent relationship in which a public institution implements programs on behalf of an external stakeholder (Arrow 1984). This stakeholder is typically (but not always) the public or a representative of the public. In such scenarios, a series of rules and mechanisms must be put in place to ensure that the agent (i.e., the public institution) acts in the stakeholder's (i.e., the public's) interest. In the literature on principal-agent problems and institutional design, two mechanisms are theorized and found to be most relevant (Holmstrom 1979). The first is the alignment of the institution's interests with those of its stakeholders. We propose that this alignment is composed of rules to ensure that the institution is *accountable* to the stakeholder while *independent* from other interests. Second, the actions of the institution must be observable to the stakeholder; in other words, there must be rules for *transparency*.

We define each of the three principles and discuss the political contexts in which they are situated below. A common theme that emerges across the three principles is that there is a distinction between formal rules and adherence to those rules. We therefore view the principles as *goals* for the design of public institutions. Because these principles describe the relationship between the public institution and the broader public, they are usually upheld in practice when they are enforced through public scrutiny as visible through robust political competition and civic participation.

Accountability

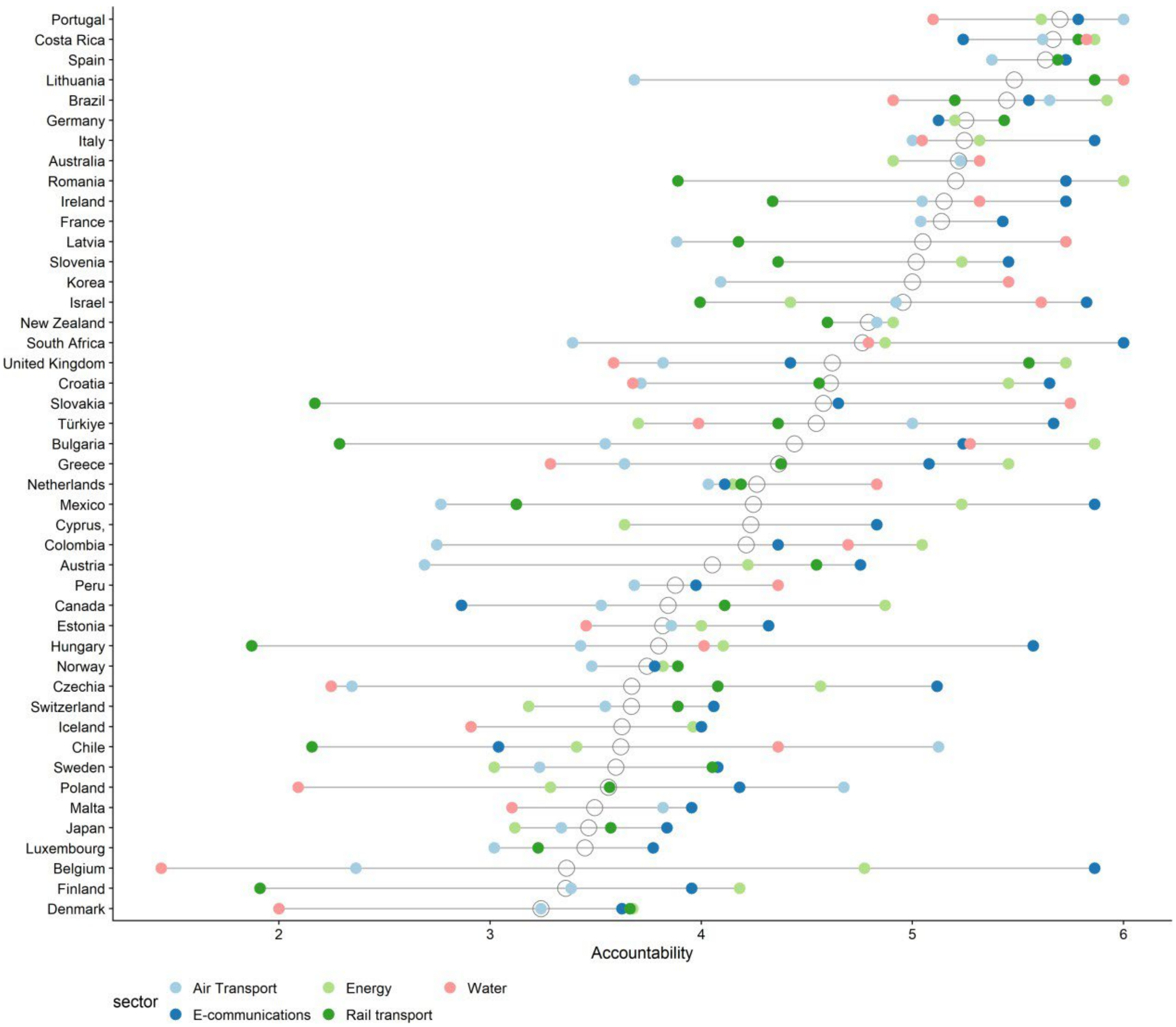
We define accountability as the influence of an external stakeholder over decision-making. Generally, we consider the main stakeholder in government decisions to be citizens. Sometimes, this stakeholder is another public institution. For instance, can public auditors meaningfully investigate the abuse of public spending? In other cases, the stakeholders can be private firms or civil society organizations. For example, can firms meaningfully challenge regulatory decisions that they believe to be biased or unfair? In all cases, the stakeholder's influence can take multiple forms, including the ability to review an organization's decisions, enact consequences (negative or positive) for policy outcomes, and provide feedback on the organization's performance. When the stakeholder is the public, accountability can include oversight by citizens through mobilization that directly approaches appointed officials or places pressure on them indirectly though politicians and, where relevant, elections (World Bank 2004; Kosack and Fung 2014).

The accountability principle is meant to align an institution's interests with those of the external stakeholder and prevent the organization from acting in its own interests or drifting from its mandate (Schillemans and Busuioc 2015). Several examples from the literature illustrate the effect of mechanisms for accountability on development outcomes. In China, for example, citizen monitoring in the form of public appeals to regulators when firms violated pollution standards decreased pollution emissions (Buntaine, Zhang, and Hunnicutt 2024). In another example from China, the public ratings of municipal governments' compliance with central mandates increased compliance with pollution standards (Anderson et al 2019).

Accountability varies substantially across public institutions within and across countries. Drawing on data from the Governance of Sector Regulators, it is possible to visualize the variation in the accountability of sector-specific regulatory institutions for OECD countries.[4] The accountability indicators used in the dataset cover accountability to multiple principals, including the executive and legislative branches, regulated entities, and citizens. An accountability index is computed as a composite score of specific questions, including to whom the regulator is accountable (e.g., parliament/congress), whether the government collects feedback from stakeholders, and whether there is a legislative requirement for the regulator to produce a report on its activities on a regular basis. Although the sample is restricted to OECD countries and selected non-members, the data shows significant variation in the strength of accountability mechanisms. For example, Lithuania's water regulator scores high on accountability, while its air transport regulator scores low (Figure 5).

[4] The definition of accountability in the Governance of Sector Regulators is similar to the one presented in this paper. Namely: accountability covers the mechanisms to hold the regulator to account on its performance and decision making. This concerns the regulator's accountability vis-à-vis the executive, legislature, regulated entities, users and society (OECD 2025).

Figure 5. The accountability of sectoral regulators varies within countries across sectors



Source: Authors' elaboration based on data from the Governance of Sector Regulators, 2025. Scores vary from 0 (lowest accountability) to 6 (highest accountability). Each color corresponds to a different sector regulator. Data is self-reported and reviewed by the OECD. Not all sector regulators have responded to the questionnaire for each country.

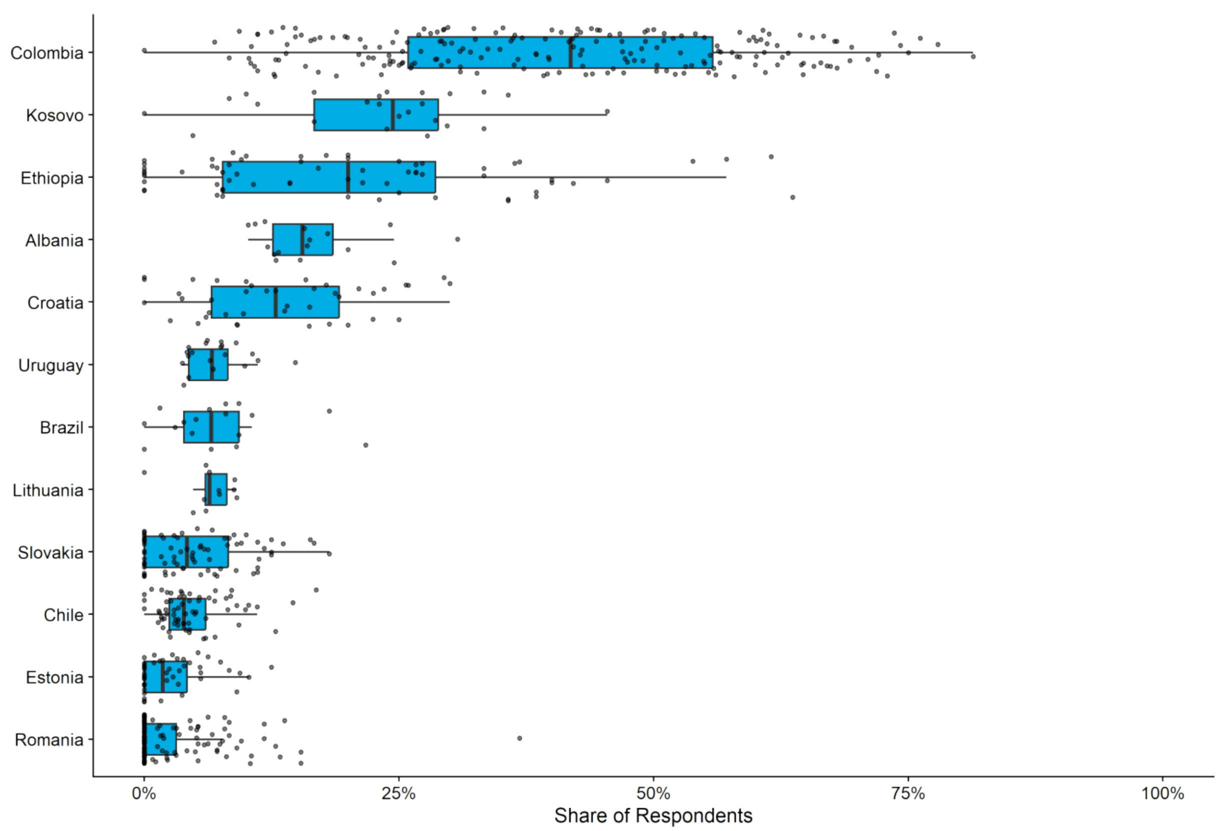
Independence

We define independence as the insulation of an institution from private interests unaligned with its mandates and the public interest. While accountability ensures that the external stakeholder (typically the public) has influence over policy implementation, the independence principle ensures that the institution is not acting in the sole interest of any specific actor(s). In other words, the principle refers to a lack of *private* capture of the institution. Examples of a lack of independence include political influence over appointments that are in principle based on meritocratic appointment; regulation and procurement activities that favor private interests; and the undue political allocation of resources in the implementation stage. This type of independence is distinct from bureaucratic autonomy to complete tasks without interference, which we discussed above, in the management practices principle. Independence has positive effects on institutional capacity. For example, regulatory agencies that are more independent are better able to enforce policies (Koop and Hanretty 2018, Nistotskaya and Cingolani 2016). Aneja and Xu (2024) find that, in the late 1800s, a United States law shielding bureaucrats from political influence reduced postal service error rates and improved efficiency.

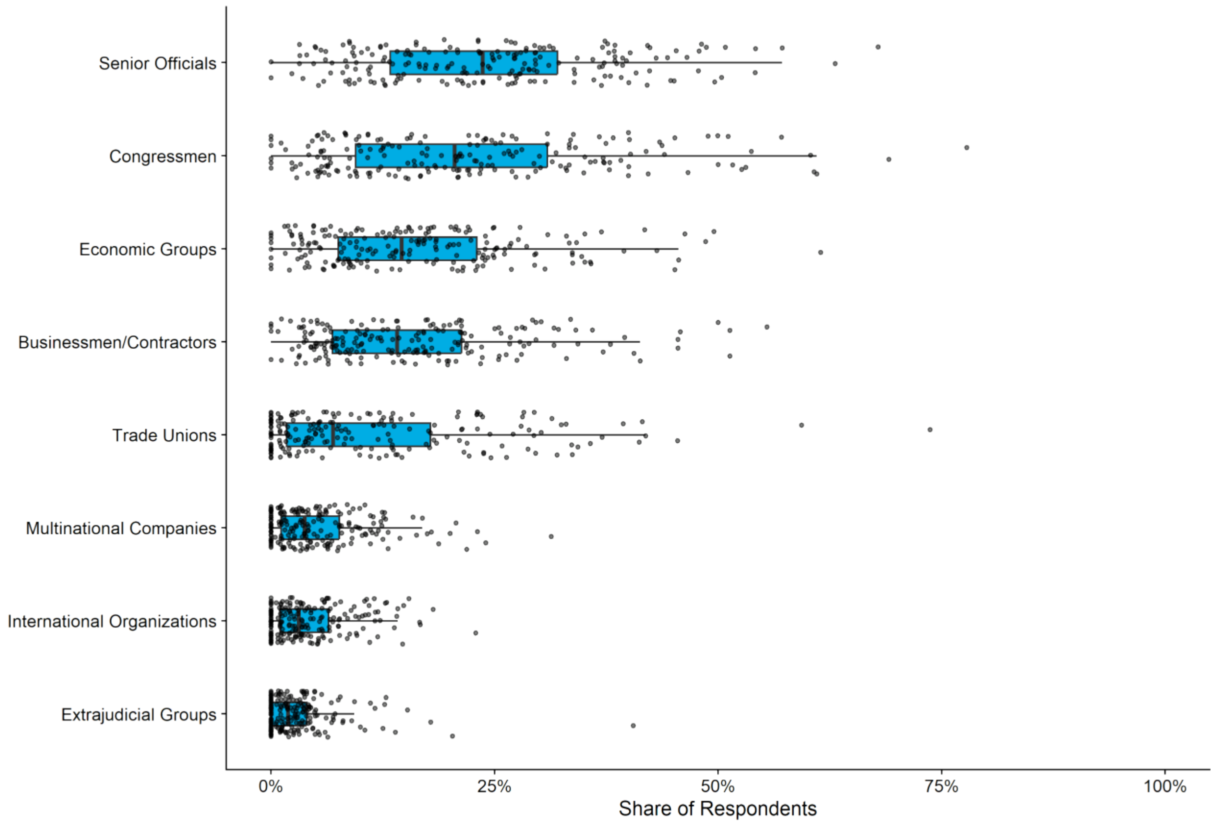
In Figure 6, we focus on two indicators to measure independence of public institutions: (1) the extent to which personnel recruitment is meritocratic (the independence of personnel) and (2) the extent to which policy decisions are subject to political interference (the independence of management practices). Figure 5 uses GSPS data to highlight indicators that measure the independence of personnel and management practices at the institutional level. Panel A shows the extent to which personnel recruitment is not influenced by political connections, while panel B highlights the extent to which policy decisions are perceived to be influenced by political interference. Both panels show the wide variation across institutions within the same country. Likewise, other evidence in the literature suggests that administrations can weaponize performance management to favor ideologically aligned institutions and curtail their independence (Lavertu, Lewis and Moynihan 2013).

Figure 6. Measuring institutional-level variation in independence

Panel A: Institutional-level variation in the influence of political connections on recruitment



Panel B: Institutional-level variation in undue influence on decision-making in the institution, by actor (Colombia)



Source: Global Survey of Public Servants. Only countries covered in the GSPS are analyzed. Each black dot represents a different public institution in the same country. Data collected from 2016-2021, but data of collection varies by country.

The independence principle is perhaps the most difficult to achieve in practice. For example, even where there are formal rules mandating that a post must be filled through meritocratic recruitment, a politician with discretion over hiring will have an incentive to use that discretion for his or her private interest. Public budgets are usually never intended to be spent on private interests, but leakage and corruption are, of course, common. We therefore highlight the importance of both formal rules and true independence, while acknowledging that true independence in everyday policy implementation may be difficult to achieve in the absence of strong mechanisms for transparency, as described below.

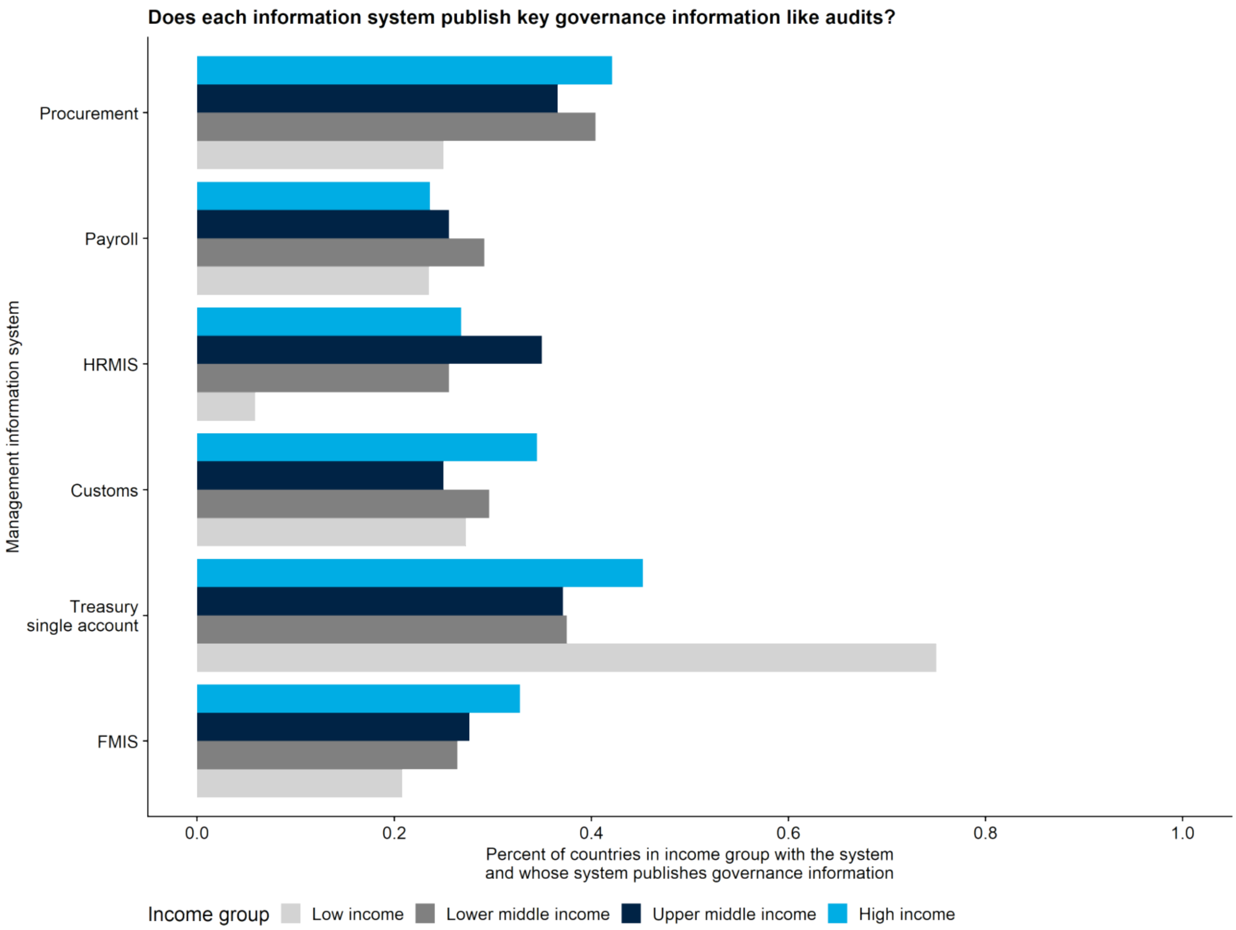
Transparency

The framework defines transparency as the visibility of a public institution's decisions and actions to external stakeholders. Transparency is essential for enabling accountability: enforcement mechanisms are only effective if the relevant stakeholder has enough visibility into a public institution's operations to become aware of infractions or deviations from the policy mandate. For instance, cross-country analysis finds that during economic emergencies, countries with more transparent central banks face lower costs of disinflation (Stasavage 2003). Increased media freedom – a proxy for transparency – is also associated with decreased corruption (Camaj 2013). As noted above, transparency is particularly effective at improving outcomes when paired with accountability. In a famous example, audits of road projects in Indonesian villages decreased unaccounted-for expenditures by 8 percentage points (Olken 2007).

Transparency reforms might be challenging to implement precisely because they rely on the political support of the individuals whose actions they aim to expose. A politician placing pressure on administrative officials to serve his political interests would desire minimal visibility of the office's actions. As highlighted in the discussion of information systems above, unelected officials may also resist efforts to collect information on their activities. As Eckhouse (2022) demonstrates, transparency initiatives can be manipulated by motivated actors. Even so, there may be political incentives to support transparency initiatives. Berliner (2014), for example, finds that politicians are more likely to support transparency initiatives in competitive political environments because they constrain future administrations.

At the most basic level, the transparency dimension emphasizes that government information and data should be public, easily accessible, and presented in formats that are easy for citizens to understand. Figure 7 demonstrates that information systems vary in their degree of transparency. For instance, about 30% of low-income countries with customs information systems publish key governance information like audits. In contrast, fewer than 10% of low-income countries with human resources management information systems make the same kind of information accessible to the public. Such variation in transparency across information systems suggests that – even within a single country – different kinds of government information will be more accessible to the public than others. However, as with independence, no single indicator can fully capture transparency for a country or even an entire institution. Different levels and forms of transparency are relevant for different types of public institutions and governance challenges.

Figure 7: Measuring institutional variation in transparency



Source: GovTech Maturity Index (GTMI), 2022.

The role of internal stakeholders

The principal-agent relationship described above characterizes the entire institution as a single agent. In reality, as Williams (2021) emphasizes, institutions are composed of multiple individuals working together, often in hierarchical principal-agent relationships (e.g., managers and employees). Conceptually, each of the principles of accountability, independence, and transparency can refer to principals (or stakeholders) within or outside the institution. For example, actors within an institution might be accountable to both the public and their managers within the organization. In many cases, adherence to a given governance principle might occur externally but not internally. For instance, an institution as a whole might be independent from political influence, but certain actors within it might hold considerable sway over the actions of its employees (Lucas and Baxter 2012). Meyer-Sahling et al (2018) further show that within bureaucracies, lower-level officials can be subject to political influence, weakening their independence. Conversely, adherence to principles may occur internally but not externally. Procedures for hiring and remuneration, for example, may be perfectly transparent for those within the institution but not disclosed to the general public.

We define the governance dimensions primarily with respect to the external stakeholder. That said, the role of internal stakeholders is often important for guaranteeing that the institution as a whole remains accountable, independent, and transparent. Even when an external stakeholder appoints an agency head who is accountable to the public, the agency's rank-and-file employees must first be accountable to their managers who are, in turn, ultimately accountable to the agency head. In rural India's multi-tier system for rural governance, for instance, a district-level politician has the ability to transfer the block development officer (an unelected official whose office is responsible for implementing government programs in areas with roughly 150,000 citizens each) – which keeps the officer accountable to the public. The employees within the block office, however, are accountable to the block development officer, through whom they are eventually accountable to the public (Purohit 2022; Kruks-Wisner and Kumar 2024). In other words, within institutions, governance dimensions can often rely on how internal stakeholders interact with formal rules or informal rules, thereby underscoring the importance of organizational culture discussed above.

3.3 Governance dimensions applied to organizational dimensions

The strength of these governance principles might vary *within* a public institution, across each of the organizational dimensions. Consider, for example, efforts to curb corruption, or scenarios where an institution's financial resources, management practices, information systems, and personnel serve private interests instead of the public good. Rules can be applied to improve the governance of each of these dimensions. For example, rules about the recruitment and career lifecycle of personnel can prevent conflicts of interest within public institutions. First, officials' employment after the public sector can be monitored to minimize incentives to act in their private interests or the interests of another party, thus keeping public officials independent from private interests. Second, financial disclosures can bring potential conflicts of interest to light, illustrating an application of the transparency dimension. Finally, repercussions for conflicts of interest and the resulting activities that arise can keep officials accountable to the public interest.[5] Different sets of mechanisms might improve the governance of the other organizational dimensions.

As such, we think of the organizational and governance dimensions as cross-cutting. Table 1 illustrates the principles as applied across the different aspects of organizational capacity we have defined: personnel, financial resources, information systems, and management practices. In addition, this table also proposes measures for the governance dimensions of public institutions, each of which is applied to the organizational dimensions highlighted above. Unlike the organizational indicators, several of these measures may not be readily available in a single existing dataset but could be collected with publicly available data from government websites, reports, or news articles. Alternatively, they could be collected through expert interviews or surveys of public officials, as in the Global Survey of Public Servants (Schuster et al 2023).

These measures are not intended to be exhaustive but are rather meant to provide a starting point for diagnosing governance problems. It is likely that the most appropriate measures for any given context will arise from interviews with public servants and experts on common safeguards and policies within public institutions. The applicability of different measures will also likely vary across individual public institutions.

[5] These mechanisms are outlined in a recent guide prepared by the World Bank, OECD, and UNODC that highlights the importance of personnel and rules about their recruitment and career lifecycle in preventing conflicts of interest within public institutions.

Table 1. Application of governance dimensions to organizational dimensions

		Personnel	Financial Resources	Information Systems	Management practices
Accountability	*Concept*	Whether an external stakeholder influences staffing decisions, with feedback mechanisms to inform and potentially enforce the external stakeholder's preferences.	Whether the use of financial resources is subject to the influence of an external stakeholder, with mechanisms to enforce the budget, might include sanctions if funds are misused.	Whether an external stakeholder has influence over the data collected in the institution's information systems, the protection of data, and the ability to enact consequences if data collection and security processes are not aligned with its interests.	Whether an external stakeholder has influence over the processes governing how a policy is implemented. Includes repercussions or changes in the management system if it is observed that the stakeholder's preferred processes are not being followed.
	Measurement	Whether agency head is appointed/elected; rewards/sanctions based on performance evaluations or other observable measures of behavior (Eisenhardt 1985; perceived importance of performance for promotion (Meyer-Sahling et al 2018)	Externally determined budget; participatory budgeting; release of funds conditional on periodic budget review/audit; ability to plan aggregate expenditures ex ante; fiscal data is reported to an external stakeholder	Data collection and distribution are tied to clear policy mandates; compliance with rules for processing and recording transactions; repercussions for data manipulation	Publicly defined targets and goals along with a review process to determine if those goals are being met; pay-for-performance schemes (Pires 2011); mechanism for citizen feedback or grievance redressal; external appointment of managers/directors; existence of payroll audits; competitive procurement methods
Independence	*Concept*	Whether personnel can make decisions without interference from private interests or politicians motivated by political gains	Whether an organization can spend its budget without private influence or the influence of politicians motivated by their political gains	Whether data can be collected, shared, and secured without private influence or the influence of politicians motivated by political gains.	Whether the organization is insulated from private interests or the influence of politicians motivated by reelection in the management of the

					policy implementation process.
	Measurement	Term length of appointed heads (Hanretty and Koop 2011); percentage of public service recruited through meritocratic processes (Teodoro and Pitcher 2017, Dahlstrom and Lapuente 2022); whether officials perceive political influence over hiring/promotion/transfers (Meyer-Sahling et al. 2018); lack of frequent transfers of bureaucrats	Length of budget cycles; whether budget allocation decisions are made internally; whether cash flows are forecasted, monitored, and predictable	Whether those collecting, processing, and securing data are different from those enacting policy (Eckhouse 2022)	Autonomy in determining staffing and use of budget
Transparency	*Concept*	Visibility of hiring, promotion, and remuneration policies to the public	Visibility of budget, accounts, and expenditures to the public	Visibility of processes for data collection and security to the public	Visibility of the processes for policy implementations to the public
	Measurement	Publicly available organizational structure; public statements regarding the political appointment of agency heads; public advertisement for positions (Meyer-Sahling et al 2018)	Publicly available budget and expenditures; visibility of debt and risks; presence of internal/external audits (Hameed 2005)	Public documentation on how data is collected and secured; data is made publicly available through open data portals	Existence of reporting on policy implementation; presence of monitoring and evaluations; integration between personnel records and payroll data; public access to procurement data

Table 2: Using the framework to diagnose potential sources of common implementation problems

	Potential sources of problems						
Implementation problem	**Organizational Dimensions**				**Governance Dimensions**		
	Personnel	***Financial Resources***	***Information Systems***	***Management Practices***	***Independence***	***Accountability***	***Transparency***
Public officials lack the skills for the job (i.e., consumer protection fails because regulators do not have the technical skills to understand the specific market)	Recruitment does not identify the most relevant skills			The institution lacks sufficiently specialized departments to tackle technical issues	**Personnel** practices favor personal connections or private interests	There are no repercussions for poor **personnel** performance or poor implementation outcomes in general	
The institution lacks sufficient information about the nature of the problem it is addressing (i.e., schools lack books because the procurement agencies have no way to track schools' needs)			Information about the problem or context is not stored or used in a systematic way	The institution lacks departments specialized in the nature of the problem it is addressing	Private actors prevent **information systems** from collecting data that might expose them to repercussions	There are no repercussions for technical failures in program implementation driven by a failure of **management systems** priorities	
Public institutions or departments working on issue lack coordination to work effectively	Career incentives do not encourage collaboration or coordination		Departments lack shared information about a problem	Departments are siloed, with lack of strategic coordination		While individuals or department may be accountable for their actions, there are no repercussions	

together (i.e., disaster support fails or is delayed because different agencies cannot coordinate)						for poor **management practices** or poor implementation outcomes in general	
Public officials shirk (i.e., undesirable learning outcomes because teachers' absenteeism)	Career advancement and salary are not appropriately tied to individual performance; multiple individuals responsible for an outcome, leading to free-riding		Systems to monitor progress on a project do not exist or are not used		**Personnel** are motivated by private incentives rather than career advancement or salary	**Personnel** practices lack mechanisms to enforce accountability of officials' behavior	**Information systems** do not provide visibility into officials' effort
Public officials engage in rent seeking (i.e., private investment declines because bribes are needed to get things done)	Career advancement and salary are not appropriately tied to policy implementation outcomes		Information systems do not have sufficient coverage or granularity to make misallocation easily visible		**Personnel** are beholden to private interests	**Personnel** practices lack mechanisms to enforce accountability of officials' behavior	**Information systems** do not provide visibility into misallocation
Public officials have insufficient authority to exercise discretion (i.e., infrastructure worsens because projects are delayed due to excessive compliance issues)		Officials do not control the resources related to the problems they work on	No easy access to decision-making processes (e.g. expenditures), officials must rely on other officials who might gatekeep	Officials lack sufficient autonomy; compliance checks are burdensome	**Management practices** and institutional strategy are overridden during election time; implementation process is micromanaged by politicians for personal gain	There are repercussions based on the implementation process rather than implementation outcomes, leading **management practices** to optimize for process compliance	

4. Using the framework to diagnose implementation problems

The framework can aid policy makers and practitioners in diagnosing the causes of failure in policy implementation. Table 2 presents examples of common problems in policy implementation and illustrates how a public institution's organizational and governance dimensions might contribute to those problems. While problems may also originate in the policy making or institutional design phase, the focus of the framework is on identifying any potential problems at the level of the public institution at the time of policy implementation. The exact way in which organizational and governance dimensions contribute to a problem will be context dependent; Table 2 simply presents examples to illustrate different possibilities.

As Table 2 illustrates, a given problem may have roots in multiple organization or governance dimensions, highlighting the closely connected nature of the framework's various components. For example, recruitment practices, an aspect of the *personnel* dimension, may prevent the hiring of public officials who are sufficiently skilled for the job. At the same time, these recruitment practices might be inhibited by a lack of sufficiently specialized departments to hire technical staff, an aspect of the overall management strategy. Weakness in one dimension may result in weakness in another. Weakness in organizational dimensions may further be related to ineffective governance of an organizational dimension. Poor hiring practices, for example, may originate in capture or insufficiently independent *personnel* practices.

Certain dimensions will be more relevant for a given problem. In theory, it is possible to connect every dimension to a problem in some way. Yet certain problems are more likely to be tied to just a few dimensions. For example, if an institution lacks sufficient information about a problem or policy it is implementing, the most proximate cause is likely to be *information systems* that do not effectively collect or store information. This cause may be interconnected with other organizational dimensions (e.g. passive waste may prevent the effective use of information systems), and the framework is intended to help policy makers and practitioners identify these connections. Depending on the nature of a problem, either the organizational or governance dimensions might be more relevant. When public officials engage in rent-seeking, this is particularly likely due to weakness in an institution's governance dimensions, while a lack of coordination across departments is more likely to originate in weakness in organizational dimensions.

5. Conclusion

This paper provides a new framework for better understanding institutional capacity, or the ability of institutions to implement their policy mandates. Instead of focusing on states as a whole, we center the public institution – defined as public sector organizations mandated with policy implementation – as the unit of analysis. We refer in particular to the government bodies tasked with the day-to-day work of policy implementation, such as ministries, departments, and agencies.

We next develop a framework for analyzing the capacity of these institutions, aiming to help academics, policy makers, and development practitioners better understand the public institutions they study and work with. We highlight the importance of an institution's organizational dimensions – i.e. personnel, financial resources, and management and information systems. We also call attention to three governance dimensions – accountability, independence, and transparency – that help keep the incentives of public institutions aligned with the public interest. The paper also provides a descriptive analysis of these concepts using existing data, showing that both the organizational and governance dimensions are relevant for institutional capacity. Most of these descriptive analyses demonstrate important within-country variation in the framework's dimensions.

Practically speaking, the framework underscores the importance of considering multiple organizational and governance dimensions when diagnosing capacity issues. Public financial management reforms, for example, should consider not only aspects related to financial resources, but also the personnel who construct the budget and the practices through which they are managed. In most cases, implementation failures occur because of problems related to many of these dimensions rather than a problem with one single factor. This means that interventions and reforms aimed at increasing institutional capacity should simultaneously target several of these dimensions instead of seeking to change one dimension at a time.

The paper highlights many avenues for future work. First, there is a need to further data collection along the framework's dimensions. In particular, one of the contributions of the framework is to highlight the public institution as an important unit of analysis. Because of important within-country variation in institutional capacity, future data collection efforts should focus on individual public institutions rather than the public sector as a whole. Second, while our analytical framework is intended to be general, future work might also explore important parameters of variation. For example, future work might explore variation in institutional capacity across different government functions. Public institutions tasked with education, law enforcement, and regulation face radically different mandates and challenges. Different aspects of our framework will be particularly relevant to each type of institution. Focusing on the public institution as an important unit of analysis therefore opens the possibility of building a comparative approach across a number of *types* of institutions.

Ultimately, the analytical framework aims to make discussions and analysis of state capacity more tractable by decomposing the broad concept into smaller dimensions and measurable variables that the literature highlights as important to policy implementation. With this framework in place, future researchers can learn about the drivers of the different dimensions, the relationships between them, and the tradeoffs inherent in reform.

References

Acemoglu, Daron, Camilo García-Jimeno, and James A. Robinson. 2015. "State capacity and economic development: A network approach." American economic review 105, no. 8 2364-2409.

Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2005. "Institutions as a fundamental cause of long-run growth." Handbook of economic growth 1 : 385-472.

Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation." American Economic Review, 91 (5): 1369-1401.

Addison, Douglas M. 2013."The quality of budget execution and its correlates."World Bank Policy Research Working Paper 6657.

Akhtari, Mitra, Diana Moreira, and Laura Trucco. "Political turnover, bureaucratic turnover, and the quality of public services." *American Economic Review* 112, no. 2 (2022): 442-493.

Anderson, Sarah E., Mark T. Buntaine, Mengdi Liu, and Bing Zhang. 2019. "Non-governmental monitoring of local governments increases compliance with central mandates: a national-scale field experiment in China." American Journal of Political Science 63, no. 3 : 626-643.

Andrews, Matt. "The Limits of Institutional Reform in Development: Changing Rules for Realistic Solutions." Cambridge University Press, 2013.

Andrews, Matt, Lant Pritchett, and Michael Woolcock. 2017. "Building state capability: Evidence, analysis, action". Oxford University Press.

Andrews,Donna Louise; Hasnain,Zahid; Watkins,Joanna Alexandra; Deane,Arsala; Colgan,Anne Marie; Goldin,Nicole Renee; Zeid,Ramy Yasser Mohamed; Kim,Galileu; Van Acker,Wouter. 2022. "Tech Savvy : Advancing GovTech Reforms in Public Administration (English). Equitable Growth, Finance and Institutions Insight". World Bank Group, Washington, D.C.

Andrews, Matthew, Marco Cangiano, Neil Cole, Paolo De Renzio, Philipp Krause, and Renaud Seligmann. 2014. "This is PFM." CID, Working Paper Series 2014.285, Harvard University, Cambridge, MA.

Aneja, Abhay, and Guo Xu. 2024. "Strengthening state capacity: Civil service reform and public sector performance during the gilded age." *American Economic Review* 114.8, 2352-2387.

Arrow, Kenneth J. 1984. "The economics of agency." Technical rep, page No. 31, Center for Research on Organizational E ciencey, Stanford University.

Azulai, Michel, Imran Rasul, Daniel Rogger, and Martin J. Williams. 2020. "Can training improve organizational culture? Experimental evidence from Ghana's civil service." Documento de trabajo.

Baland, J.-M., Bourguignon, F., Platteau, J.-P. and T. Verdier,. 2020. "The Handbook of Economic Development and Institutions. " J Econ 129, 301–302 .

Bandiera, Oriana, Andrea Prat, and Tommaso Valletti. 2009. "Active and passive waste in government spending: evidence from a policy experiment." American Economic Review 99, no. 4 : 1278-1308.

Bandiera, Oriana, Michael Carlos Best, Adnan Qadir Khan, and Andrea Prat. 2021. "The allocation of authority in organizations: A field experiment with bureaucrats." The Quarterly Journal of Economics 136, no. 4 : 2195-2242.

Banuri, S., & Keefer, P. 2016. "Pro-social motivation, effort and the call to public service." European Economic Review, 83, 139-164.

Bersch, Katherine, Sérgio Praça, and Matthew M. Taylor. 2017. "State capacity, bureaucratic politicization, and corruption in the Brazilian state." Governance 30, no. 1 : 105-124.

Bertelli, Anthony M., Mai Hassan, Dan Honig, Daniel Rogger, and Martin J. Williams. 2020. "An agenda for the study of public administration in developing countries." Governance 33, no. 4 : 735-748.

Berwick, Elissa, and Fotini Christia. 2018. "State capacity redux: Integrating classical and experimental contributions to an enduring debate." Annual Review of Political Science 21 : 71-91.

Besley, Timothy, Robin Burgess, Adnan Khan, and Guo Xu. 2022. "Bureaucracy and development." *Annual Review of Economics* 14 : 397-424.

Besley, Timothy J. and Ghatak, Maitreesh . 2009. "Property Rights and Economic Development". LSE STICERD Research Paper No. EOPP006, Available at SSRN: https://ssrn.com/abstract=1546900

Besley, Timothy, and Torsten Persson. 2009. "The origins of state capacity: Property rights, taxation, and politics." American economic review 99, no. 4 : 1218-1244.

Besley, Timothy, and Torsten Persson. 2011. "Pillars of prosperity: The political economics of development clusters. " Princeton University Press,

Besley, Timothy, Rohini Pande, Lupin Rahman, and Vijayendra Rao. 2004. "The politics of public good provision: Evidence from Indian local governments." Journal of the European Economic Association 2, no. 2-3 (2004): 416-426.

Best, Michael Carlos, Jonas Hjort, and David Szakonyi. 2023. "Individuals and organizations as sources of state effectiveness." American Economic Review 113, no. 8 : 2121-2167.

Bloom, Nicholas, and John Van Reenen. 2007. "Measuring and explaining management practices across firms and countries." The quarterly journal of Economics 122, no. 4 : 1351-1408.

Bloom, Nicholas, and John Van Reenen. 2010. "Why do management practices differ across firms and countries?" Journal of economic perspectives 24, no. 1 : 203-224.

Blum, J. R., Datta, A., Fazekas, M., Samaddar, S., and Siddique, I. 2023. "Introducing E-Procurement in Bangladesh: The Promise of Efficiency and Openness." Policy Research Working Paper; No. WPS 10390; Impact Evaluation Series. World Bank Group. Washington, D.C.

Bolton, Alexander, Rachel Augustine Potter, and Sharece Thrower. 2016. "Organizational capacity, regulatory review, and the limits of political control." The Journal of Law, Economics, and Organization 32, no. 2 : 242-271.

Buntaine, M. T., Greenstone, M., He, G., Liu, M., Wang, S., & Zhang, B. 2024. "Does the Squeaky Wheel Get More Grease? The Direct and Indirect Effects of Citizen Participation on Environmental Governance in China." American Economic Review, 114(3), 815-850.

Buntaine, M. T., Zhang, B., & Hunnicutt, P. 2021. "Citizen monitoring of waterways decreases pollution in China by supporting government action and oversight."*Proceedings of the National Academy of Sciences*, *118*(29), e2015175118.

Callen, Michael, Saad Gulzar, Ali Hasanain, Muhammad Yasir Khan, and Arman Rezaee. 2020. "Data and policy decisions: Experimental evidence from Pakistan." Journal of Development Economics 146 : 102523.

Callen, Michael, Saad Gulzar, Ali Hasanain, Muhammad Yasir Khan, and Arman Rezaee. "Personalities and public sector performance: evidence from a health experiment in Pakistan." *Economic Development and Cultural Change* 73, no. 3 (2025): 1439-1474.

Camaj, Lindita.2013. "The media's role in fighting corruption: Media effects on governmental accountability." The International Journal of Press/Politics 18, no. 1 : 21-42.

Chalendard, Cyril, Ana M. Fernandes, Gael Raballand, and Bob Rijkers. "Corruption in customs.2023. "The Quarterly Journal of Economics 138, no. 1 : 575-636.

Centeno, Miguel Angel, Atul Kohli, and Deborah J. Yashar. 2017. "Unpacking states in the developing world: Capacity, performance, and politics." *States in the developing world* : 1-32.

Colonnelli, Emanuele, Mounu Prem, and Edoardo Teso. 2020. "Patronage and selection in public sector organizations." American Economic Review 110, no. 10 : 3071-3099.

Dahlström, C., & Lapuente, V. 2022. "Comparative bureaucratic politics." Annual Review of Political Science, 25, 43-63.

Dal Bó, Ernesto. "Regulatory capture: A review." *Oxford review of economic policy* 22, no. 2 (2006): 203-225.

Dasgupta, Aditya, and Devesh Kapur. 2020. "The political economy of bureaucratic overload: Evidence from rural development officials in India." American Political Science Review 114, no. 4 : 1316-1334.

Decarolis, Francesco, Leonardo M. Giuffrida, Elisabetta Iossa, Vincenzo Mollisi, and Giancarlo Spagnolo. 2020. "Bureaucratic competence and procurement outcomes." The Journal of Law, Economics, and Organization 36, no. 3 : 537-597.

Deserranno, Erika, Philipp Kastrau, and Gianmarco León-Ciliotta. "Promotions and productivity: the role of meritocracy and pay progression in the public sector." *American Economic Review: Insights* 7, no. 1 (2025): 71-89.

Dell, Melissa. 2010. "The persistent effects of Peru's mining mita." Econometrica 78, no. 6 : 1863-1903.

Dhaliwal, Iqbal, and Rema Hanna. 2017. "The devil is in the details: The successes and limitations of bureaucratic reform in India." Journal of Development Economics 124 : 1-21.

Di Maro, Vincenzo, David K. Evans, Stuti Khemani, and Thiago Scot. 2021. "Building State Capacity: What Is the Impact of Development Projects?." *Available at SSRN 4075621*.

Dincecco, Mark, and Gabriel Katz. 2011. "Political Transformations and Economic Performance." IMT Lucca Institute for Advanced Studies .

Dincecco, Mark, and Gabriel Katz. 2016. "State capacity and long-run economic performance." The Economic Journal 126, no. 590 : 189-218.

Dincecco, Mark. 2017. "State capacity and economic development: Present and past. " Cambridge University Press.

Eckhouse, Laurel. 2022. "Metrics Management and Bureaucratic Accountability: Evidence from Policing." American Journal of Political Science 66, no. 2 : 385-401.

Eisenhardt, Kathleen M. 1985. "Control: Organizational and economic approaches." Management science 31, no. 2 : 134-149.

Eutsler, Jared, M. Kathleen Harris, L. Tyler Williams, and Omar E. Cornejo.2023. "Accounting for partisanship and politicization: Employing Benford's Law to examine misreporting of COVID-19 infection cases and deaths in the United States." Accounting, Organizations and Society 108 : 101455.

Evans, Peter, and James E. Rauch. 1999. "Bureaucracy and growth: a cross-national analysis of the effects of "Weberian" state structures on economic growth." American sociological review 64, no. 5, 748-765.

Fenizia, Alessandra. 2022. "Managers and productivity in the public sector." Econometrica 90, no. 3, 1063-1084.

Foarta, Dana and Ting, Michael. 2023."Organizational Capacity and Project Dynamics". Stanford University Graduate School of Business Research Paper No. 4321890, George J. Stigler Center for the Study of the Economy & the State Working Paper No. 339.

Fukuyama, Francis. 2013. "What is governance?" Governance 26, no. 3, 347-368.

Gailmard, Sean. 2010. "Politics, principal–agent problems, and public service motivation." International Public Management Journal 13, no. 1, 35-45.

Gailmard, S. and Patty, J.W., 2007. Slackers and zealots: Civil service, policy discretion, and bureaucratic expertise. *American Journal of Political Science*, *51*(4), pp.873-889.

Gailmard, S. and Patty, J.W., 2012. Formal models of bureaucracy. *Annual Review of Political Science*, *15*(1), pp.353-377.

Gingerich, Daniel W. 2013. "Governance indicators and the level of analysis problem: empirical findings from South America." British Journal of Political Science 43, no. 3, 505-540.

Golden, Miriam, and Brian Min. 2013. "Distributive politics around the world." Annual Review of Political Science 16, 73-99.

Grindle, Merilee S. 1997. "Divergent cultures? When public organizations perform well in developing countries." World development 25, no. 4, 481-495.

Grindle, Merilee S. 2007. "Good enough governance revisited." Development policy review 25, no. 5, 533-574.

Hameed, Farhan. 2005. "Fiscal Transparency and Economic Outcomes." IMF Working Paper No. 05/225, Available at SSRN: https://ssrn.com/abstract=888094

Hanna, Rema, and Benjamin A. Olken. 2018. "Universal basic incomes versus targeted transfers: Anti-poverty programs in developing countries." Journal of Economic Perspectives 32, no. 4, 201-226.

Hanretty C. and Koop C. 2011. "Measuring the Formal Independence of Regulatory Agencies." Journal of European Public Policy 19 (2): 198-216

Hanson, Jonathan K., and Rachel Sigman. 2021. "Leviathan's latent dimensions: Measuring state capacity for comparative political research." The Journal of Politics 83, no. 4, : 1495-1510.

Hasnain, Zahid, Muhammad Faisal Ali Baig, Ravi Somani, Wouter Van Acker, Anca Butnaru, Robert J. Palacios, and Daniel E. Ortega. 2021. "Public Sector Employment and Compensation: An Assessment Framework." World Bank Group. Washington, D.C.

Hasnain,Zahid; Rogger,Daniel Oliver; Walker,Daniel John; Kay,Kerenssa Mayo; Shi,Rong. 2019."Innovating Bureaucracy for a More Capable Government (English)". World Bank Group. Washington, D.C.

Hebous, Sarah, Priyanka Kher, and Trang Thu Tran. 2020 "Regulatory Risk and FDI. Global Investment Competitiveness Report: Rebuilding Investor Confidence in Times of Uncertainty"

Holmstrom, Bengt. 1979. "Moral hazard and observability." The Bell journal of economics 74-91.

Honig, Dan. 2024. "Mission Driven Bureaucrats: Empowering People to Help Governments Do Better." Oxford University Press.

Honig, Daniel. 2022. "Managing for Motivation as Public Performance Improvement Strategy in Education & Far Beyond." CID Faculty. Working Paper Series.

Iyer, Lakshmi, and Anandi Mani. 2012. "Traveling agents: political change and bureaucratic turnover in India." Review of Economics and Statistics 94, no. 3, 723-739.Knebelmann, Justine, Victor Pouliquen, and Bassirou Sarr. 2023. "Discretion versus algorithms: Bureaucrats and tax equity in Senegal." Working Paper.

Keefer, P. and Scartascini, C., 2022. *Trust: The key to social cohesion and growth in Latin America and the Caribbean*. Inter-American Development Bank.

Koop, C., & Hanretty, C. 2018. "Political independence, accountability, and the quality of regulatory decision-making." Comparative Political Studies, 51(1), 38-75.

Koop, Christel. 2011. "Explaining the accountability of independent agencies: The importance of political salience." Journal of Public Policy 31, no. 2, 209-234.

Kosack, Stephen, and Archon Fung. 2014. "Does transparency improve governance?." Annual review of political science 17.

Kruks-Wisner G. and Kumar, T. 2024. "Democratizing Bureaucracy: Citizen voice and local government responsiveness in rural India" Working Paper.

Kumar, Tanu, Alison E. Post, Isha Ray, Megan Otsuka, and Francesc Pardo-Bosch. 2022. "From public service access to service quality: The distributive politics of piped water in Bangalore." World Development 151, 105736.

Kumar, Tanu, and Gabrielle Kruks-Wisner. 2024. "Voice and Response: Citizens and bureaucrats at the frontlines of local democracy in rural India. "Working paper

La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer. 2008. "The Economic Consequences of Legal Origins." Journal of Economic Literature, 46 (2): 285-332.

Lavertu, Stéphane, David E. Lewis, and Donald P. Moynihan. 2013. "Government reform, political ideology, and administrative burden: The case of performance management in the Bush administration." Public Administration Review 73, no. 6, 845-857.

Lee, Melissa M., and Nan Zhang. 2017. "Legibility and the informational foundations of state capacity." The Journal of Politics 79, no. 1, 118-132.

Levitsky, Steven, and María Victoria Murillo. 2009. "Variation in institutional strength." Annual Review of Political Science 12, 115-133.

Lewis-Faupel, Sean, Yusuf Neggers, Benjamin A. Olken, and Rohini Pande. 2016. "Can electronic procurement improve infrastructure provision? Evidence from public works in India and Indonesia." American Economic Journal: Economic Policy 8, no. 3, 258-283.

Liu, Guoer. 2023. "Where Are the Missing Dead? How Metrics Management Mitigates Official Data Misreporting in China. " Journal of Political Institutions and Political Economy 4, no. 2, 231-258.

Lucas, J. W., & Baxter, A. R. 2012. "Power, influence, and diversity in organizations. " The ANNALS of the American Academy of Political and Social Science, 639(1), 49-70.

Mahoney, James, and Kathleen Thelen. 2010. "A theory of gradual institutional change." Explaining institutional change: Ambiguity, agency, and power 1, no. 1.

Mangla, Akshay. 2022. "Making Bureaucracy Work: Norms, Education and Public Service Delivery in Rural India." Cambridge: Cambridge University Press. https://doi.org/10.1017/9781009258050.

Mann, Michael. 1984. "The autonomous power of the state: its origins, mechanisms and results." European Journal of Sociology/Archives européennes de sociologie 25, no. 2, 185-213.

McDonnell, Erin Metz. 2017. "Patchwork leviathan: How pockets of bureaucratic governance flourish within institutionally diverse developing states." American Sociological Review 82, no. 3, 476-510.

Meyer-Sahling, Jan, Kim Sass Mikkelsen, and Christian Schuster. 2020. "Merit recruitment, tenure protections and public service motivation: Evidence from a conjoint experiment with 7,300 public servants in Latin America, Africa and Eastern Europe." Public Administration 99, no. 4, 740-757.

Meyer-Sahling, Jan-Hinrik, Christian Schuster, and Kim Sass Mikkelsen. 2018. "Civil service management in developing countries: what works? Evidence from a survey with 23.000 civil servants in Africa, Asia, Eastern Europe, and Latin America."

Michalopoulos S, Papaioannou E. 2013. "Pre-colonial Ethnic Institutions and Contemporary African Development." Econometrica. , 81(1):113-152. doi: 10.3982/ECTA9613. PMID: 25089052; PMCID: PMC4118452.

Muralidharan, Karthik. 2024. "Accelerating India's Development: A State-Led Roadmap for Effective Governance." Viking, Nistotskaya, M., & Cingolani, L. 2016. "Bureaucratic structure, regulatory quality, and entrepreneurship in a comparative perspective: Cross-sectional and panel data evidence." Journal of Public Administration Research and Theory, 26(3), 519-534.

North, Douglass C. *Institutions, institutional change and economic performance*. Cambridge university press, 1990.

Olken, B. A. 2007. "Monitoring corruption: evidence from a field experiment in Indonesia." Journal of political Economy, 115(2), 200-249.

Pepinsky, Thomas B., Jan H. Pierskalla, and Audrey Sacks. 2017. "Bureaucracy and service delivery." Annual Review of Political Science 20, 249-268.

Pierskalla, Jan Henryk; Hasnain, Zahid; Manning, Nick. 2012. Performance-related Pay in the Public Sector : A Review of Theory and Evidence. Policy Research Working Paper ; No. 6043. © World Bank, Washington, DC

Pires, R. R. 2011. "Beyond the fear of discretion: Flexibility, performance, and accountability in the management of regulatory bureaucracies". Regulation & Governance, 5(1), 43-69.

Kruks-Wisner, Gabrielle, Tanu Kumar, Manish Ranjan, and Jessica Mayberry. 2024. Voice and Responsiveness: Citizen Strategies for Engaging Bureaucrats in India. Working Paper.

Purohit, B. 2022. "Gendered bureaucratic resistance against female politicians: Evidence from Telangana, India." Working Paper.

Quinn, Simon, and Daniela Scur. 2021. "Management practices and public policy: an overview." Oxford Review of Economic Policy 37, no. 2, 221-230.

Rasul, Imran, and Daniel Rogger. 2018. "Management of bureaucrats and public service delivery: Evidence from the Nigerian civil service." The Economic Journal 128, no. 608, 413-446.

Rasul, Imran, Daniel Rogger, and Martin J. Williams. 2021. "Management, organizational performance, and task clarity: Evidence from Ghana's civil service." Journal of Public Administration Research and Theory 31, no. 2, 259-277.

Rauch, James E., and Peter B. Evans. 2000. "Bureaucratic structure and bureaucratic performance in less developed countries." Journal of public economics 75, no. 1, 49-71.

Robinson, James A, and Daron Acemoglu. 2012. Why Nations Fail: The Origins of Power, Prosperity, and Poverty. Random House. Copy at http://www.tinyurl.com/27cosoab

Rogger, Daniel, and Christian Schuster. 2023. "How to Do Government Analytics." The Government Analytics Handbook: Leveraging Data to Strengthen Public Administration.

Rogger, Daniel. 2017. "Who serves the poor? Surveying civil servants in the developing world." Surveying Civil Servants in the Developing World . World Bank Policy Research Working Paper 8051.

Sandefur, Justin, and Amanda Glassman. 2015. "The political economy of bad data: Evidence from African survey and administrative statistics." The Journal of Development Studies 51, no. 2, 116-132.

Schillemans, T., & Busuioc, M. 2015. "Predicting public sector accountability: From agency drift to forum drift." Journal of public administration research and theory, 25(1), 191-215.

Schuster, C., Mikkelsen, K. S., Rogger, D., Fukuyama, F., Hasnain, Z., Mistree, D., ... & Kay, K. 2023. "The Global Survey of Public Servants: Evidence from 1,300,000 Public Servants in 1,300 Government Institutions in 23 Countries." Public Administration Review, 83(4), 982-993.

Scott, W. 2013. "Richard. Institutions and organizations: Ideas, interests, and identities." Sage publications.

Scott, James C. 1999. "Seeing like a state: How certain schemes to improve the human condition have failed." Yale university Press.

Soifer, Hillel.2008. "State infrastructural power: Approaches to conceptualization and measurement." Studies in comparative international development 43, 231-251.

Soujaa, Ismail, Julius A. Nukpezah, and Abraham David Benavides. 2021. "Coordination effectiveness during public health emergencies: an institutional collective action framework." Administration & Society 53, no. 7, 1014-1045.

Stasavage, D. 2003. "Transparency, democratic accountability, and the economic consequences of monetary institutions." American Journal of Political Science, 47(3), 389-402.

Suryanarayan, Pavithra. 2024. "Endogenous state capacity." Annual Review of Political Science, 27: 223—243.

Tendler, J., 1997. Good government in the tropics.

Teodoro, M. P., & Pitcher, M. A. 2017. "Contingent technocracy: Bureaucratic independence in developing countries." Journal of Public Policy, 37(4), 401-429.

Toral, Guillermo. 2023. "How patronage delivers: Political appointments, bureaucratic accountability, and service delivery in Brazil." American Journal of Political Science 68, no. 2, 797-815.

Trinh, Minh. 2019. "Statistical misreporting from below, as seen from (very high) above.".

Tsai, L. L. 2007. "Solidary groups, informal accountability, and local public goods provision in rural China." American Political Science Review, 101(2), 355-372.

Vogler, Jan P.2019. "The political economy of public bureaucracy: the emergence of modern administrative organizations." PhD diss., Duke University.

Williams, Martin J. 2017. "The political economy of unfinished development projects: Corruption, clientelism, or collective choice?" American Political Science Review 111, no. 4, 705-723.

World Bank. 2004.”World development report, making services work for poor people.” World Bank Group, Washington DC.

World Bank. 2016. “World Development Report 2016: Digital Dividends.” World Bank Group, Washington DC .

World Bank. 2016. “World development report, Governance and the law.” World Bank Group, Washington DC .

World Bank. 2017. “World Development Report”. World Bank Group, Washington DC.

World Bank. 2021. "World development report 2021: Data for better lives." World Bank Group, Washington DC.

World Bank. 2022. " The State of Global Learning Poverty: 2022 Update." World Bank Group, Washington DC.

World Bank. 2023. "The World Bank Group in Mozambique, Fiscal Years 2008-21-Country Program Evaluation.", World Bank Group, Washington DC.