Oriana Bandiera
Michael Callen
Katherine Casey
Eliana La Ferrara
Camille Landais
Matthieu Teachout

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Table of Contents

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1 Introduction

Sustaining high rates of economic growth requires an effective state with strong and inclusive institutions (Besley and Persson 2009). The state is at the centre of economic governance not just as the designer and decision maker for the national policy agenda, but also as the provider of key public services that are necessary for growth and structural change. However, in a large number of developing countries, the state fails to deliver these services. To end poverty rapidly and permanently, states need to be strengthened so that they are both accountable for delivering inclusive growth and have the capacity to design and implement the services and policies necessary to do so.

Understanding why states are less effective in low-income countries is a critical first step. However, finding solutions to strengthen state capabilities is also essential to generate higher rates of inclusive growth. In this paper, we review the existing literature on the role of the state in developing countries and the set of policies that have proven effective in building state capacity. We highlight areas for future research where more evidence is needed to deepen our understanding of the challenges states face and how to overcome them.

To end poverty rapidly and permanently, states need to be strengthened so that they are both accountable for delivering inclusive growth and have the capacity to design and implement the services and policies necessary to do so.

The central objective of this theme of research is building effective states to improve economic governance in developing countries and generate higher rates of inclusive growth. The first pillar of this research agenda centres on escaping the fragility trap, building a functioning state, strengthening institutions, and making them more inclusive. The second encompasses *what* the state should do and the type of policies that are necessary to reduce poverty and make growth more inclusive. The third pillar relates to how the effectiveness and capacity of the state can be improved.

First, we discuss the challenges that fragile states face and the consequences of fragility for their economic development. Fragility is a trap from which it is difficult to escape. It creates uncertainty and low levels of necessary public goods that impede the private sector. Firms are reluctant to invest or create jobs, and economic development stalls.

We start by exploring how economic policies can allow countries to escape from extreme fragility. Research is needed on the set of economic factors and policy priorities that, once conflict and political violence end, allow the peace process to be sustained and put countries on a path away from extreme fragility.

Fragility is also a continuum and is not limited to conflict. Divided societies, deficient political leaders, weak institutions, and missing systems of checks and balances are all part of this spectrum. Escaping fragility requires designing policies for greater economic integration and building stronger and more inclusive institutions. To that end, because a rich literature links the identity and characteristics of politicians to economic policy performance, we argue that more research is needed on political selection. Creating an effective and inclusive political class is important for equity, stability, and growth. In addition, it is also important to keep politicians accountable to the constituents they serve. We review the literature on state accountability and suggest new avenues for research.

Two recent political and economic developments are likely to create challenges for developing countries and increase their fragility. The first is the emergence of populism at a global scale. Fractured societies and the rise of populist leaders are likely to have important consequences for economic policy and, as a result, impact growth. This paper focuses on two areas where we think economists can add value: understanding the economic roots of identity politics as well as its economic consequences. The second recent development is the growing flow of refugees to and from developing countries, an issue that requires policy responses and programmes from the state in order to avoid destabilisation. Over 90% of internal and cross-border refugees are concentrated in developing countries. The economic integration of refugees and their impact on labour markets thus deserve more attention from researchers.

Second, we argue that states should be a central pillar of the strategy for poverty reduction and inclusive growth. This is important not only on its own, but because it helps to re-establish a social contract between the state and the mass of the population that is poor. Finding innovative ways to accelerate poverty reduction in low-income countries improves efficiency by improving the allocation of talent of the poor, while also tackling inequality, which is often the root of political dissatisfaction and conflict. Contemporary developments make the rationale for state intervention to generate pro-poor growth even more important. Most of the world's remaining poor are either in fragile states or being left behind in rapidly growing economies (Page and Pande 2018). While the necessary state capabilities needed for effective poverty reduction are likely to be different across countries, we believe that there is a need to target the poor directly through more ambitious poverty reduction programmes.

We first review the literature on what states already do to address poverty and whether these programmes are effective. The performance of a wide range of interventions has now been measured through randomised controlled trials. While their outcomes can be informative for policymakers, we argue that the existing stock of knowledge is biased toward the evaluation of consumption support programmes that simply aim to elevate the poor above a certain level of subsistence. The majority of these programmes do not have a transformative impact on the poor, as they fail to contribute to the underlying need for structural change. More research is needed to identify innovative social protection programmes that are effective in providing production support for the poor. Our emphasis on production support reflects the need for policy to focus on social and economic mobility, rather than on inequality per se, if countries are to lift individuals permanently out of extreme poverty. We would like to see further research on the optimal design of social assistance and social insurance programmes, the main barriers that prevent the state from implementing them at scale, and the general equilibrium effect of social protection programmes. Moreover, making growth more inclusive requires changing the occupations of the poor to lift them out of poverty permanently. This includes removing the barriers that prevent productive people from reaching productive and high-earning jobs but also raising the abilities of those at the bottom to make them more productive. Finally, comparing the range of possible state interventions and programmes across different groups requires the adoption of a framework. To this end, one of the most promising frameworks is the marginal value of public funds framework developed by Hendren (2016) and Finkelstein (2019). We look to support researchers who would apply this framework to the data.

Third, ending poverty and achieving inclusive growth requires improving the effectiveness of state policies. Given the stringent development challenges that many low-income countries face, more resources are needed to increase the number of public goods that the state provides and also to increase the scale and effectiveness of existing goods. At the core of public finance is tax revenue, which is typically stuck at 10-15% of GDP in developing countries compared to 30-40% in advanced economies. Increasing tax revenues requires both improving compliance, to ensure that individuals and firms pay taxes as they are defined in the law, and designing better tax policy, to minimise the impact on efficiency while maximising revenues. Tax policy, however, is not only about the scale of revenues available to the state; it is also important to consider how income is distributed across the population, as this typically determines the political feasibility of tax reforms and potentially creates an equity-efficiency trade-off. The IGC has helped stimulate a growing literature on taxation in developing countries over the past decade, and we seek to build on that, highlighting potential new avenues for research. We also want to see more evidence on how states can make better use of their natural resources and put systems in place that allow them to overcome the resource curse.

We then discuss the role of bureaucracies in driving state capacity, particularly with respect to the implementation of policies crucial to economic growth. A number of studies have documented the power of monetary and non-monetary incentives in driving civil servants' performance. There is less research, however, on how bureaucrats at different levels interact, whether poor management at the top spills over to civil servants at lower levels, and more generally, how the state can build stronger bureaucratic systems. This need is particularly binding when considering the implementation of economic policies. A wide range of policies—from industrial policy to investment promotion—require setting up complex agencies where governance plays an important role, particularly with respect to the numerous contingencies likely to emerge along the way.

Finally, in providing public services, the state disburses large amounts of resources. There is significant variation across countries as to how effective this spending is, with leakages and waste generally thought to be higher in developing countries. We first discuss the role of corruption in distorting the allocation of state resources, focusing particularly on evidence on how it can be reduced, rather than quantifying its importance and consequences. We then turn to more passive forms of waste in government, where the intentions of civil servants and politicians are not malevolent but where spending systems are inefficient.

As a framework for this paper and the research that it motivates, it is worth noting the importance of those political and capacity constraints that not only have consequences for the feasibility of certain reforms, but can influence policy design. This is relevant when thinking about politicians' incentives for building stronger and more inclusive institutions, designing social protection programmes, addressing frictions in labour markets, designing tax policy and enforcing tax obligations, or building effective bureaucracies.

A cross-cutting issue that emerges from the paper is the need to better understand the patterns of social mobility in developing countries. While statistics exist for OECD countries, there is much less data to document these patterns in developing countries. Social mobility, or lack thereof, potentially has an impact on social norms about the state and could be an important driver of identity politics and populism. It is also fundamental to understanding the nature and magnitude of poverty traps and of the potential role for policies to increase production support for the poor, as noted above.

We conclude by arguing that developments over the past two decades—in the methodological tools available to researchers and in new institutions, like the IGC, that connect researchers and policy makers—have created exciting new opportunities for path-breaking research with a potentially high policy impact. A central question, then, is what the most important issues that states in developing countries face today are. This paper sets out an agenda for this research.

2 Fragility and economic development

A large fraction of the extreme poor live in fragile states. In these countries, growth could have the potential to lift a significant number of people out of poverty. However, because of the instability created by conflict, poor political institutions, refugee inflows, and corruption, growth is typically erratic in such economies, and poverty remains stagnant. Most fragile countries are in sub-Saharan Africa, where the population is likely to double by 2050,[1] so the poor are likely to increasingly concentrate in fragile states. This is why fragility is a central focus of this paper.

Fragility and low economic development often make up two sides of the same coin. When the economy grows and living standards increase, there are many beneficial effects: conflicts are less frequent, people get more involved in their society, the capacity of the state raises, tax revenues grow, political institutions are strengthened, and the legitimacy of those in power is stronger. However, igniting economic growth requires encouraging a private sector to develop and invest, and fragility brings uncertainty for businesses. Attracting firms that have the potential of creating productive jobs and giving workers the opportunity to capture the productivity gains that come from scale and specialisation is very challenging in fragile political environments. Illustrating this point further, while cities usually become the centre of economic growth by allowing firms and people to be closer to one another, the higher population density resulting from masses of refugees escaping conflict does not provide connectivity between people and firms nor agglomeration economies.

Fractured societies, illegitimate governments, weak institutions, and stagnant economies are all part of the spectrum that makes countries fragile.

Fragility leads to low growth, and low levels of economic development lead to fragility. This is what constitutes the fragility trap, which is incredibly difficult to escape (Cameron et al. 2017). But historical examples reveal that solutions can be found. Singapore was extremely fragile as it seceded from the Federation of Malaya 60 years ago, but now it is one of the most economically developed countries in the world. The Rwandan genocide took place 25 years ago, yet Rwanda is now one of the fastest growing countries in Africa. However, what these examples also tell us is that transforming fragile countries into prosperous societies is a step-by-step process that generally happens over at least a generation.

1 Source : UN, World Population Prospects, 2017.

Fragility is a continuum. While it is easy to see why countries such as Yemen, Syria, and South Sudan are fragile given the conflicts that spoil economic growth there, in practice, fragility is not just about civil wars. Fractured societies, illegitimate governments, weak institutions, and stagnant economies are all part of the spectrum that makes countries fragile. All of these factors not only increase the likelihood of future conflict; they also risk making the set of state policies that we describe in Sections 3 and 4 ineffective.

We consider fragility in three (overlapping) steps. We first explore how the core economic functions of the state can be kept afloat in extremely fragile political and economic environments. Escaping from fragility requires building stronger political and economic institutions. We then explore the literature on how the legitimacy of the state and the functioning of political institutions can be improved and what consequences this has on economic performance. Third, the current global political environment creates new fragility challenges. Over the past decade, we have observed the rise of populism in several countries with different levels of economic development. There is a need to understand the economic determinants that bring these politicians into power and the consequences that power has for economic growth. The challenges raised by refugee flows also require policy responses and programmes from the state to facilitate their economic integration.

A Addressing extreme fragility

Applied research on extreme fragility has accelerated rapidly over the last twenty years, as a result of deep theorising of sub-state conflict and violence and a rapid increase in the number of empirical papers on the topic.

Modern theories of conflict take the idea that political bargaining lies at the roots of conflict. These situations often feature at least two actors, the state and an insurgent group opposing it; they often carefully integrate the role of a third actor, civilians, and the agency they have in shaping conflict (Berman et al. 2011b,a, Kalyvas 2012). In these important senses, these theories draw from classic ideas in the counterinsurgency literature (Galula 1964, Popkin 1979). The characterisation of conflict as a violent contest for legitimate political control is also central in the so-called "hearts and minds" theory (Berman et al. 2011b). The core idea in these arguments is that the state and anti-state groups are competing for the support of the general population, and that citizens exercise substantial agency over who prevails. Correspondingly, victory requires serious efforts to represent the interests of citizens.

Empirically, many insurgent organisations in the 20th and 21st century also had some form of political arm and service delivery function. Hezbollah, Hamas, the Taliban, the Shining Path in Peru, the Liberation Tigers of Tamil Eelam (LTTE) in Sri Lanka, the Maoists in Nepal, the FARC in Colombia, and others invested substantially in providing governance and services (Baczko

2013, Giustozzi and Baczko 2014, Flanigan 2008, Arjona 2016, Wagstaff and Jung 2017). This in itself supports the idea that insurgent organisations should be understood as political actors competing for control. Such theories make the natural prediction that effective service delivery should reduce conflict.

Crost et al. (2014) provide causal evidence that insurgent groups attempt to sabotage development aid programmes in order to prevent the government from winning the hearts of the people. Dell and Querubin (2018) provide evidence that efforts to provide services can reduce conflict, as well as that victimisation increases violence.

A final perspective on conflict is that it is primarily economically opportunistic, with insurgents focused on the predation of lootable resources. Dube and Vargas (2013) find that increases in oil prices increase conflict. Relatedly, Sierra (2019) complies a panel dataset in 650 locations in eastern DRC controlled by armed groups since 1995. Positive price shocks to coltan leads armed groups to set up customs to tax output and implement protection measures for coltan mines. The coltan price shocks, however, do not induce the armed groups to develop tax and judicial administrations. By contrast, gold price shocks lead armed groups to develop more complicated tax systems in order to collect taxes and establish fiscal and judicial administrations.

Ending conflict is not the end of extreme fragility. In many countries, after a civil war ends or political violence stops, the likelihood of falling back into conflict remains high (Collier et al. 2009). The question, then, is how the peace process can be sustained. We are particularly interested in the economic factors, such as resource sharing, tax policy, or public investments that make peace lasting and durable. Below, we review the literature on the peace process then suggest areas for future research on this issue.

We are particularly interested in the economic factors, such as resource sharing, tax policy, or public investments that make peace lasting and durable.

A substantial cross-country empirical literature supports the idea that the terms of peace deals affect not only their durability, but also whether societies transition toward being more open and inclusive with healthier institutions. This literature points out that durable peace requires not only that opposing sides resolve the underlying issues driving conflict, but that the terms of peace agreements be guaranteed and enforced (Walter 2002). This can be done through involving credible third parties, as was the case with the British involvement in Sierra Leone, or bringing combatants into the political process itself, as in Colombia and in Nepal (Matanock 2017).

Importantly, this strand of research makes it clear that the durability of peace is fundamentally determined by the nature of the political institutions that emerge from the conflict. It is also clear that interventions can foster citizens' trust in the state (Berman et al. 2019a), and that this trust is vital for the state's ability to respond to crises (Dube et al. 2018). There is also evidence that reconciliation initiatives can restore the loss of social capital created by conflict (Dube et al. 2016) and that these impacts are lasting (Blattman et al. 2019). There is also abundant evidence that the experience of conflict affects political participation (Bauer et al. 2016) and economic preference (Callen et al. 2014). Yet, still comparatively little is known about the economic costs of law-and-order breakdowns (Besley 2014) or the institutional consequences of violence (Blattman and Miguel 2010).

The contemporary role and prevalence of media can also play a role in dampening or magnifying ethnic animosities post-conflict. DellaVigna et al. (2014) find that, a full decade after the Serbo-Croatian conflict, cross-border nationalistic Serbian radio triggers ethnic hatred toward Serbs in Croatia, as measured by votes for Croat nationalist parties and ethnically offensive graffiti. Yanagizawa-Drott (2014) shows that radio broadcasts encouraging violence against the Tutsi minority population led to dramatic increases in violence, both directly for listeners and through spillovers to non-listeners. He estimates that nearly 10% of perpetrators in the conflict were motivated by the radio station. Media can also ameliorate tensions. Paluck (2009) shows that a Rwandan radio soap opera promoting the values of inter-ethnic cooperation affected listeners' perceptions of norms related to intermarriage, trust, and other cooperative values. Blouin and Mukand (2018) also find that government messaging aimed at promoting interethnic healing in Rwanda decreases ethnic salience and increases interethnic trust and cooperation.

It is also clear that contact between groups with different identities can reduce animosities between them (Rao 2019, Lowe 2018, Corno et al. 2019). Economic interactions are one form of contact that makes ethnic divisions less salient. For example, Jha and Shayo (2019) provide experimental evidence that holding both Palestinian and Israeli financial assets makes people more likely to support parties advocating peace.

Building on this evidence, we encourage researchers to investigate how the core economic governance functions of the state make peace more durable. The set of potential policies is large and includes the rule of law, tax policy, revenue sharing, social protection, and public investment. In particular, how does the provision of public goods and services change the social contract with the state? Is the impact of public services on welfare really important for explaining the sustainability of peace, or are public goods just a way of signalling a change in the policies that led to conflict in the first place?

In particular, we hope to identify what the economic policy priorities should be when conflict ends. In such instances, state resources and capacity may be very limited, and not all the determinants of fragility can be addressed on day one.

Next steps and research priorities

- **What interventions can promote key development objectives in extremely fragile environments, in particular in the presence of conflict or organised violence?**
- **How can effective economic governance make peace more durable? What economic policies decrease the likelihood of future conflict?**

B Building stronger and more inclusive institutions

Escaping conflict and extreme fragility does necessarily imply a stable political environment or the functioning institutions the state relies on to design and implement effective policies for inclusive growth. Strong and inclusive institutions promote economic prosperity because they allow talents and creative ideas to be rewarded, foster economic cooperation, and remove economic and political uncertainty. This is not to say that this is necessarily a linear process; building stronger institutions is often done at the margin and so should be a priority at all levels of economic development.

Acemoglu and Robinson (2012) argue that economic development depends primarily on the inclusiveness of economic and political institutions. This section focuses on understanding how political leaders are selected, whether and how the identity of politicians affects economic policy, and how to hold them accountable.

i. Representative and effective political leaders

Political leaders, not just at the top but across government organisations, determine and drive economic policy. Burgess et al (2015) provide evidence that road building expenditure and the length of paved roads in Kenya show significant ethnic favouritism during periods of autocratic rule, but that this favouritism disappears during democratisation. Further evidence is provided by De Luca et al (2018) who use a global sample of nightlight time series from 140 multi-ethnic countries. Night light grows 7-10% more intense in political leader's homeland after they are elected. Asher and Novosad (2017) use a close elections regression discontinuity design in India to show that the election of a local politician from the nationally ruling party leads to higher private sector employment, higher share prices of firms, and increased economic activity (measured using night lights). Kramon and Posner (2013) provide a broader review on this topic.

Bhusal et al., (2019) study the effort to rebuild from Nepal's 2015 earthquake, which destroyed around 30 percent of the housing stock. Oversight of the reconstruction programme was given to a set of mayors in 2017 under the newly created federal system. While the reconstruction grants were meant to be rule based, elite castes received a disproportionate share. However, for lower caste citizens who had a relative in office, the gap disappears. The authors confirm this using a regression discontinuity design showing that descriptive representation enables lower castes to benefit from reconstruction policy.

There is also growing evidence that political inclusion of historically marginalised and excluded groups matters for their economic fortunes. Human capital is a fundamental input into growth and economic transformation. Chattopadhyay and Duflo (2004) show that quota reservations for women change the pattern of public expenditure to be more aligned with the interests of mothers. Pande (2003) shows that political reservations for lower castes increases social transfers in India increases government transfers directed toward these groups. Fujiwara (2015) shows that changes to voting technology in Brazil that created a de facto enfranchisement of less educated voters shifted government spending toward health care, resulting in better maternal health provision and ultimately fewer low-weight births.

In our view, the next phase of this literature should elaborate on the mechanisms linking the identity and characteristics of politicians to policy outcomes. Under what circumstances do they make investments and policy decisions that create an inclusive and enabling environment for economic activity, and under what circumstances do they distort economic policy for political reasons? How do politicians change the enabling environment for business? We would like to encourage more research linking political selection, representation and inclusion in the political process, to economic policy outcomes and to growth.

The first objective of that research agenda is understanding the variety of factors that influence the decision of individuals to enter politics. We are particularly interested in knowing which of these factors encourages the entry of high-quality people, where quality is measured by levels of ability, competence, and integrity. In their recent review of political selection, Dal Bo and Finan (2018) theoretically highlight a few key factors—namely entry costs, the rewards to office, and the electoral advantage of the potential candidate's party—that affect the likelihood of positive selection on quality. They then scan the relevant empirical literature, which they characterise as "still in its infancy," to better understand the observed relationships between these factors and the characteristics of those who stand for office. They uncover two main areas of emerging consensus: i) higher returns to office and ii) greater electoral competition facilitate the entrance of more competent individuals into politics.

From the perspective of fragile states, it is worth noting a caveat for each of these two factors. First, while there is growing evidence from a variety of contexts—including Brazil, Italy, and India (Ferraz and Finan 2011b, Gagliarducci and Nannicini 2013, Fisman et al. 2014)—that higher official returns, such as politician salary, facilitate positive selection. There is countervailing evidence that higher illicit returns do the opposite, attracting less competent candidates (Brollo et al. 2013). As a number of papers have produced evidence for the existence of illicit returns in developing countries—including Uganda, Brazil, India, and Peru (Reinikka and Svensson 2004, Ferraz and Finan 2011a, Niehaus and Sukhtankar 2013, McMillan and Zoido 2004)—understanding the potentially pernicious relationship between illicit returns and selection, and what can be done to mitigate it, warrants further exploration. Second, in fragile states, there is often a lack of competition in the selection process of political leaders. This comes in two common forms: i) in countries where one party consistently dominates politics, races at all levels may be uncompetitive; and ii) even when the national political scene is competitive, subnational races may not be, especially where ethnicity- or caste-based loyalties predict both partisan preferences and geographic sorting into relatively homogenous local districts. Evaluating strategies to induce positive selection in non-competitive environments could thus be particularly important in new or weak democracies, essentially answering the question of which policy levers are good substitutes for cross-party electoral competition.

In addition to financial incentives, finding ways to leverage nonpecuniary incentives for politicians may be particularly important in developing countries, where government budgets are often severely constrained. In an example from Pakistan, Gulzar and Khan (2019) show that advertising the pro-social benefits of serving in office encourages the running of new individuals who are both popular (and thus more likely to be elected) and perform better once in office. We can apply a similar rationale to issues of recruiting and motivating civil servants, which relates to our discussion on establishing an effective bureaucracy in Section 4. Here, Besley and Ghatak (2005) argue theoretically that the quality of an individual's match with the organisational mission can compensate for low-powered incentives. Even without pay differentials, experimental evidence in Zambia (Ashraf et al. 2019) and Uganda (Deserranno 2019) suggests that advertising jobs differently attracts different types of applicants, who then perform differently on the job. Close-to-budget-neutral incentives, like offering staff transfers to more favourable locations, have also been shown to be effective in incentivising performance in Pakistan (Khan et al. 2019).

Another area we view as particularly promising in fragile states is research around strategies to better leverage human capital. In light of the recent massive enhancements to human capital in many of these countries, finding better ways to leverage the new talent can both enhance the capability of political leadership and spill over to increase the efficacy of the bureaucracy that politicians generally manage. Casey et al. (2019) show some resistance by traditional political authorities in Sierra Leone to accommodate the skills of better educated younger community members, which leads to under-utilisation of existing human capital. Optimistically, they show that a low-cost intervention to identify and publicly nudge communities to delegate to skilled individuals can help alleviate this distortion. Another example of effectively bridging the gap between political leadership and the workings of the bureaucracy is Raffler (2019), who finds that providing budgetary information to local elected officials enables them to better monitor the service delivery performance of bureaucrats in Uganda. On the flip side, Colonnelli et al. (2019) provide evidence that patronage hiring of bureaucrats by politicians favours low-competence workers in Brazil.

Institutional change does not necessarily lead to meaningful change in economic outcomes if, for example, powerful elites have incentives to invest in de facto power in ways that undermine the changes in de jure power (see Acemoglu and Robinson 2008 for a theory of "captured democracy"). In many fragile states, introducing democracy does not fully supplant pre-existing traditional institutions, which retain control of many essential public goods and services and tend to be more autocratic in nature. In Indonesia, Martinez-Bravo et al. (2017) show that allowing mayors appointed by the autocratic regime to finish out their terms after the transition to democracy led to worse governance and development outcomes a decade later. In Sierra Leone, traditional chiefs are shown to continue to control the provision of public goods and services in rural areas long after the introduction of democracy. Acemoglu et al. (2014) show that chiefs who face the least constraints on their power via the traditional system (e.g., no threat of competition by other "ruling families" eligible to stand for chieftaincy) have worse long-run development outcomes. Finding ways to better bridge these parallel sets of institutions in a way that better promotes the economics goals of institutional reforms is an important area for future research.

ii. State accountability

Open and inclusive economic development requires that states be capable and effective. Acemoglu and Robinson (2012) emphasise both capacity and accountability as essential ingredients for sustained economic and political development. According to their formulation, in the right combination, these ingredients underpin the state's willingness to create policy that supports innovation and growth.

The literature is now replete with evidence that interventions can enhance core state capacities. However, the evidence on whether and how accountability might be promoted is much more mixed. Keeping states accountable, especially in very fragile environments, is a challenge. It often relies on the provision of information, usually going both ways – from citizens to political leaders and from the government's actions to the population. Information allows politicians to be more aware of the needs of the population and to citizens to discipline the behaviour of those in office. A stronger political oversight typically requires implementing an institutional environment that facilitates these exchanges of information and make leaders more accountable for their policies. We review the literature on how politicians aggregate preferences of citizens and how providing opportunities for greater oversight for citizens changes the actions of political leaders.

Two recent papers in Sierra Leone and Nepal show that party officials are poorly informed about voter preferences, which could explain why even well-intentioned party delegates often fail to choose the candidates most preferred by voters (Casey et al, 2019a; Gulzar et al, 2019). Encouragingly, both papers show that party officials respond positively to representative polling information on voter preferences.

A stronger political oversight typically requires implementing an institutional environment that facilitates these exchanges of information and make leaders more accountable for their policies.

One way citizens can oversee politicians is through elections. They are one way among many of disciplining the behaviour of those in office (see models like Banks and Sundaram 1993, Fearon,1999), reducing the problems associated with both adverse selection and moral hazard that political leaders are subject to. In practice, there are many reasons to be concerned that citizens are not able to use their vote to effectively select and discipline leaders, and a variety of studies investigate different tools to bolster their ability. Information has been at the centre of much of these debates and literature, so while we know quite a bit about the role of information provision, there remain some interesting questions to explore.

Pande (2011) reviews experimental and quasi-experimental work on the links between more informed voters and improved economic governance in low-income democracies. She finds strong accumulated evidence for the idea that voters are responsive to political information, specifically from candidate campaigns (Wantchekon 2003, Fujiwara and Wantchekon 2013 on Benin), third-party providers of information about incumbent performance (Ferraz and Finan 2008 on Brazil; Banerjee et al. 2011, Chong et al. 2015 on Mexico), and exposure to politicians from underrepresented groups (Beaman et al. 2009, Bhavnani 2009 on gender quotas in India). Several studies quantify voter responsiveness as measured by both their turnout decision (e.g., Gine and Mansuri 2011 for female voters in Pakistan) and vote choice (e.g., Banerjee et al. 2010 on reducing ethnicity-based voting in India). On balance, this group of studies yields optimistic results regarding the efficacy of information provision in enhancing electoral accountability, and it resonates with quasi-experimental work showing that more informed voters in developing countries suffer less leakage (Reinikka and Svensson 2005 on Uganda) and see their needs better met by government (Besley and Burgess 2002 on India).

More recent experimental evidence on the efficacy of information provision is mixed. The ambiguity comes from two key sources: first, interventions vary in the type of information they provide and how it is delivered, which likely matters for voter responsiveness; and second, if the information shock to voters is large enough, politicians will respond strategically, and their efforts can either work to reinforce or unravel the basic effect of information on voter behaviour. We take these two questions in turn.

On the question of which types of information and dissemination mechanisms are most effective, at this point we can only speculate by drawing comparisons across studies. On the ineffective end, a recent coordinated multisite experiment across six countries evaluated standard approaches to delivering objective information about incumbent performance—e.g., via flyers or text messages—and detected no appreciable change in voter behaviour (Dunning et al. 2019). Specifically, meta-analysis yielded null results for the effects of information provision on voter perceptions of politicians, their vote choices, and turnout decisions. The common arm evaluated across these sites was information delivered privately to voters, and the authors show that results for three sites that had an alternative, more public treatment arm had more positive effects. The greater efficacy of more public treatments aligns with earlier work finding strong positive effects of public interventions like town hall-style policy deliberations in Benin (Wantchekon 2003, Fujiwara and Wantchekon 2013) and public screenings of candidate debates in Sierra Leone (Bidwell et al. 2019). On this specific point, the Sierra Leone study directly compares voter responses to private and public viewing of debates and finds larger responses in the public treatments. The divergence between private and public dissemination suggests that common knowledge generation, coordination, or social mobilisation effects may be important and merits additional investigation to parse these mechanisms.

There is a second key dimension we are interested in, where recent work sheds new light but raises many interesting questions: How does economic policy respond to information interventions and greater oversight? Here, it is instructive to begin with the now-classic work on publicising government audits. In Brazil, Ferraz and Finan (2008) show that publicising audit reports of municipal government spending facilitates accountability by enabling voters to reward high performers and punish more corrupt politicians. Follow-up work shows that incumbent politicians in turn respond to this electoral pressure by reducing their level of corrupt activity—and critically, this effect is only observed among those who are not term-limited and so need to be concerned about re-election (Ferraz and Finan 2011a). In this situation, the politician's response reinforces the voter's response to information. Over time, however, this link gets muddied. While Avis et al. (2018) find that an early audit lowers subsequent levels of corruption, their evidence attributes this reduction not to the channel of electoral accountability, but rather to the initial legal costs associated with being found to be corrupt. Results from Puerto Rico are starker: Bobonis et al. (2016) find comparable short-run politician responses to audits—e.g., incumbents improve their behaviour when they know an audit will be released before an election. However, they find no longer-run effect on subsequent corruption whatsoever. In this case, electoral pressure driven by voter learning about incumbent performance had only a transitory effect on politician behaviour.

Even more pointedly, we seek to understand when the strategic responses of politicians work to reinforce or unravel the impact of information on citizens. The ease with which politicians can get away with ignoring, or actively attempting to undermine, voter-facing interventions links back to the efficacy of different information delivery mechanisms. In explaining why a scorecard intervention that delivered objective information on incumbent performance failed to induce changes in voter or politician behaviour in Uganda, Humphreys and Weinstein (2012) speculate that poorly performing politicians may have attempted to discredit or obfuscate the information conveyed by the scorecards. Similarly, for the Mexican site in the six-country coordinated experiment referenced earlier, Arias et al. (2019) show that candidates responded to the information disseminated via leaflets distributed with their own party handouts and advertisements, particularly where the leaflet revealed high levels of malfeasance in office. It is possible that more public and intensive treatments are less susceptible to undermining by politicians. As an example where the feedback loop to politician behaviour worked well, the large public debate screenings in Sierra Leone, which covered a quarter of each constituency's polling stations, induced better subsequent performance by elected politicians who had participated in a debate as candidates (Bidwell et al. 2019). Similarly, public policy deliberation with voters in Benin led to a decrease in clientelist transfers by participating candidates (Fujiwara and Wantchekon 2013). For other types of intervention, it is harder to tell: While one information intervention decreased vote buying in India (Banerjee et al. 2011), a similar one led to *greater* vote buying in the Philippines (Cruz et al. 2019). More work is needed to better understand the drivers of politician responses and their impact on the efficacy of interventions—including but not limited to information campaigns—aimed at strengthening electoral accountability.

More work is needed to better understand the drivers of politician responses and their impact on the efficacy of interventions—including but not limited to information campaigns—aimed at strengthening electoral accountability.

Another exciting area for future work to enhance accountability is understanding how to effectively harness the rapidly changing nature of technology. The widespread penetration of mobile phones, including smart phones, the arrival of social media in its various forms, and the declining costs of information transmission present a great variety of opportunities. To outline the promise, photographs of the voting returns posted on polling stations proved an effective strategy in reducing electoral fraud in a critical early election in Afghanistan (Callen and Long 2015). That said, some other early experiments have produced disappointing results. As some examples, Marx et al. (2017) document how a text message campaign implemented with the Kenyan Electoral Commission had a positive short-run effect on voter turnout; however, it backfired after their much-anticipated electronic voting system failed, creating unintended negative consequences for citizen trust in electoral institutions. In Uganda, a new technology platform that allowed citizens to text in concerns to their elected members of Parliament failed to have any effect, as both citizen and MP engagement with the platform was low (Grossman et al. forthcoming). Thus, while the promise is there, we are far from understanding how best to harness new technologies to enhance political accountability.

Next steps and research priorities

- **Political selection**
  - What are the key factors that facilitate the selection of representative and competent leaders (in particular in fragile states, where illicit returns are prevalent and political competition is weak)?
  - What is the role of "parallel institutions" such as traditional chiefs in designing local economic policy and the provision of local public services?
- **State accountability**
  - What strategies are most effective at enhancing state accountability?
  - How do politicians react to interventions aimed at promoting accountability? How do these interventions affect economic policy?

C The new challenges of fragility

i. Populism and the economy

While it had long been thought that fragility ended once strong political and economic institutions were put into place, recent political developments around the world suggest otherwise. Increased political polarisation, the rise of populism, and identity politics threaten the stability of domestic institutions and generally lead to a profound shift in economic policy. One such example is the election of Donald Trump in the US, which has led to a number of trade wars that will undoubtedly affect growth patterns of a number of countries, including—even if potentially indirectly—those in the developing world.

This issue is mostly a subject for research in political science. However, we intend to bring added value along two dimensions. The first is the economic determinants that lead to a rise of populist candidates and leaders. The second is the consequences identity politics have on economic choices and economic performance. We review these two branches of the literature in that order below.

Various brands of populist leaders are now raging across developing and developed countries alike. Bolsonaro in Brazil, Modi in India, Duterte in the Philippines, Orban in Hungary, and the Swedish Democrat party provide just a few recent examples. This suggests that it is not just a country's current level of economic development or recent economic performance that has led to the rise of populist leaders, but that other issues—common across these countries and many more—are at stake.

Understanding when and how certain dimensions of identity become salient is the focus of much research. For example, Shayo and Zussman (2011) provide evidence of in-group bias in small claims courts in Israel, using the random assignment of judges (of different ethnicities) to different cases. There is also evidence that the effects of conflict on ethnic identification are long-lived. Fouka and Voth (2013) find that during the 2010–2014 debt crisis in Greece, which increased tensions between Greece and Germany, areas that had been occupied by German troops during World War II decreased their purchases of German automobiles even more sharply than the rest of the country. Clots-Figueras and Masella (2013) show that students who experienced more years of bilingual instruction in compulsory education (Catalan and Spanish) feel more Catalan and are more likely to vote for Catalan parties.

Several authors have stressed the importance of economic shocks and job insecurity as a driver of current support for nationalism or populism (e.g., Guiso et al. 2017, Dal Bo et al. 2018). Grossman and Helpman (2018) show that shifts in social identification (resulting, for example, from racial or ethnic tensions) can explain changes in trade policy. Gennaioli and Tabellini (2019) propose a model where exposure to cultural shocks (e.g., immigration) or to globalisation may lead to a decrease in the extent to which voters identify along class lines and an increase along other dimensions, ultimately reducing the demand for redistribution.

ii. The economic integration of refugees

In a number of countries, the challenges raised by refugees and massive migration flows require policy responses and programmes from the state in order to avoid destabilisation or lower rates of growth. Displacement—whether due to conflict, political instability, or climate change—is likely to constrain the growth path of fragile and fragile-neighbouring countries.

Over 90% of those forcibly displaced are concentrated in the developing world, and 60% of these are in fragile states. The 36 most fragile countries in the world account for 2.6% of global GDP, but host 71% of the world's population of domestic or cross-border refugees. This number is only expected to increase with the current worsening conflict in several countries, particularly in sub-Saharan Africa.

Displacement challenges state capacity by creating pressure on public services and labour markets, but also, importantly, by threatening already-tenuous forms of social cohesion. More research is needed to identify strategies the state can pursue to facilitate the economic integration of refugees and internally displaced persons. These could include the impact of access to work permits, upskilling, and incentives for resettlement on both refugees and locals. Carefully designed studies could then examine how economic integration could affect social cohesion and political stability. Most research on this topic has been confined to the integration of the less than 5% of refugees who are attempting to integrate into the developed world. Yet, the absorptive capacity of labour markets and the baseline levels of social cohesion are likely to be significantly different in developing countries.

Next steps and research priorities

- **How do anti-poverty programmes and the provision of public goods affect ethnic and cultural cleavages?**
- **What economic factors are responsible for the rise of populism in developing countries?**
- **What is the economic impact of refugees in low income countries? What policies facilitate their economic integration?**

3 The state, labour markets, and inclusive growth

What should be the role of the state in developing countries? The span of potential activities is very large, and not all can be covered in this paper. In the following sections, we argue that lifting people out of poverty should be at the centre of the state's attention in its attempt to encourage structural change and growth.

As the recent Nobel Prize in economics recognises, the challenges of growth and economic development—and in particular, the goal of eliminating extreme poverty—has galvanised a movement in development economics aimed at directly confronting global poverty. However, our main observation is that the large set of programmes that address poverty in developing countries are unlikely to deliver structural change and economic growth. There is a need to shift from policies that cure the symptoms of poverty to policies that address its causes—by changing the employment and production activities of the poor, thereby enabling them to permanently exit poverty. Further research is urgently needed on the optimal design of pro-poor growth programmes.

There is a need to shift from policies that cure the symptoms of poverty to policies that address its causes—by changing the employment and production activities of the poor, thereby enabling them to permanently exit poverty.

A Poverty reduction, social protection, and inclusive growth

i. The role of the state in poverty reduction efforts

The share of the world's population living in extreme poverty—on less than \$1.90 a day (in 2011 PPP)—fell from 42% in 1981 to 10% in 2015.[2] However, sustaining the same slope in poverty reduction in the coming decades will like-

2 Source: World Bank. These observations are based on the current international standard of poverty measurement, the World Bank's US\$1.90-a-day poverty line approach. Some dispute the fact that a fixed dollar line is the most appropriate way to track poverty (Ferreira et al. 2016, Deaton 2010). Allen (2017) builds a new methodology that arguably addresses many of the problems in the current World Bank's approach, and he finds that the resulting number of poor is about 50 percent higher than the World Bank's count.

ly be particularly difficult. First, about two thirds of the world's extreme poor now live in middle-income countries, such as India and Nigeria (Page and Pande 2018). While growth is a necessary condition for reducing poverty, in a number of countries it has failed to deliver change for a significant portion of the population. This suggests that the poor in middle-income countries need to be targeted directly through specific policies. Second, in fragile states, where the remaining one third of the poor concentrate, escaping the fragility trap will likely not be a sufficient condition for reducing poverty.

This is likely why the United Nations Sustainable Development Goals (SDGs), a set of targets enacted in 2015 to be reached by 2030, still highlight poverty as their first priority. In the words of the international community: "*We are determined to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment.*"[3]

On top of this empirical observation, two theoretical foundations provide a rationale for why poverty reduction should be a critical objective of the state in efforts to encourage structural change and inclusive growth.

The first and most commonly cited is equity. States should not let people fall below a subsistence level of income. Tackling inequality is at the centre of the state's agenda, and it underpins a number of social protection programmes. While inequality across countries has significantly decreased over the past decades, inequality within countries has been stagnant, underlining the continuing importance of fairness as a motive for poverty reduction (Ravallion 2014). A growing macroeconomic literature has shown that higher inequality correlates with lower growth, particularly at low levels of economic development (Barro 1999). State-run social protection programmes also contribute to re-establishing the social contract between the state and mass of the population that is poor. Other policies for economic development are unlikely to be effective unless the state establishes its legitimacy more strongly. Finding new ways to tackle inequality is essential, as it is often the root of the political tensions and conflicts that halt the process of economic development

The lack of economic opportunities at the bottom of the wealth distribution is probably one of the most important factors curtailing economic development.

The second—and often overlooked—rationale is efficiency. A number of market failures can prevent the poor from reaching their full productive ability. In this view, the poor—while productive—engage in low-earning and unproductive activities, as they lack the opportunities to realise their potential. In other words, market failures generate poverty traps (Bowes et al. 2004, Ghatak 2015). Removing these constraints not only improves the livelihoods of the poor but increases aggregate productivity. Increasing the

3 Source : https://sustainabledevelopment.un.org/post2015/transformingourworld

speed of poverty reduction in developing countries can allow the poor to express their abilities and thus enhance the overall efficiency of the economy. The lack of economic opportunities at the bottom of the wealth distribution is probably one of the most important factors curtailing economic development.

In a lot of countries, the poor already receive support from a wide range of actors, including, for example, NGOs. A number of social protection mechanisms are informal or community based. These include Self-Help Groups (SHGs) in India or Indonesia or Rotation Savings and Credit Associates (ROSCAs) in Africa (Banerjee and Duflo 2007). Udry (1990) shows how informal community networks and family support in Nigeria reduce asymmetric information and so diminish credit constraints for households and small businesses. Given this existing infrastructure, why should the state also be a leader in poverty reduction?

The state has an important role to play for several reasons. First, the state is the only actor that is legitimately elected to represent the preferences of its citizens. Of course, it is debatable whether this happens in practice or whether the state is captured, as discussed earlier in this chapter, but that does not change the core principle. Second, the state is the only body with oversight over critical institutions such as property rights, laws, and regulations that are necessary to reduce poverty. Even if informal networks or NGOs directly provide services to the poor, the government typically has the power to regulate them. Third, informal insurance or assistance relies on the willingness of the wealthy to take care of those who are less favoured, and so these measures are likely to be insufficient. Substituting informal mechanisms with taxes and transfers may be both more efficient and equitable. Fourth, as countries grow, the poor typically migrate to cities and family structures change, leaving less room for informal mechanisms. Munshi and Rosenzweig (2005) show that economic development increases inequality within social and family networks, so that the most able face strong incentives to pull out of these networks and pursue independent success, while the least able are left to rely on weakened networks. Fifth, informal mechanisms address mainly idiosyncratic shocks. When aggregate shocks occur, all individuals in the network are generally affected, which limits the potential for consumption-smoothing transfers. Sixth, the state may be able to raise more foreign aid than individual NGOs. In turn, governments can design larger scale programmes with more impact and a higher level of coordination than NGOs can.

While these points are all sensible justifications for state-run poverty reduction programmes, more evidence is needed on how the state should interact with other formal and informal social welfare programmes. How can the state better coordinate and make the most out of the efforts made by NGOs and other social partners to lift people out of poverty? Another area of interest could be to explore how increased state spending for pro-poor growth affects the activities of other organisations. Does one crowd the other in or out?

How can NGOs involved in providing services to the poor work more closely with the state?

Having established the need for the state to be a central player in poverty reduction, the next critical question is what the state should do to lift people out of poverty.

The central cause of mass poverty in low-income countries is that most people, despite working long hours, are employed in unproductive jobs. Two thirds of workers in developing countries work in low-productivity jobs with small and unstable income flows.[4] To alleviate poverty and engineer inclusive growth, therefore, the state must facilitate occupational transformation.

In the next section, we review the existing evidence on the effectiveness of social assistance programmes, which increase the permanent income of the poor, and social insurance programmes, which reduce the impact of shocks. Where well designed, both types of programmes can contribute to increased productivity and occupational transformations.

We then discuss, in Section b below, two further strategies that focus directly on increasing the productivity of the poor by giving them the *capabilities* and *opportunities* they need to meet their potential.

ii. Social protection and production support

The poor in developing countries face important income shocks that significantly worsen their conditions and often contribute to keeping them in poverty. These can take the form of idiosyncratic shocks such as illness, the death of relatives, or unemployment—risks that poor households are generally insufficiently insured against. Deaton (1997) in Côte d'Ivoire, Munshi and Rosenzweig (2005) in India, Fafchamps and Lund (2003) in the Philippines, and Townsend (1995) in Thailand all document how the consumption of poor households is strongly correlated with variations in income. Moreover, aggregate shocks, such as macroeconomic or weather shocks, that affect the income of entire regions can also impact the poor detrimentally. The third type of fluctuations that individuals can be exposed to are shifts in labour productivity over their lifecycle. These can be particularly difficult to bear with for the poor, given that virtually all of the income gathered through their productive years is dedicated to vital expenses. By the time their productivity decreases later in life, their savings are usually very small. These factors together make the case for social insurance.

A number of other interventions, usually referred to as social assistance programmes, aim at making sure that the poor can meet their basic needs of food and shelter. The need, then, is to increase their income or (more directly) their consumption levels. We note, however, that the conceptual and prac-

4 Source : https://www.worldbank.org/en/topic/jobsanddevelopment/overview

tical distinction between social insurance and social assistance may be blurry. The existence of social assistance programmes can (and most of the time does) provide effective insurance against risks, while social insurance programmes do generally create significant redistribution that may otherwise fall into the scope of social assistance.

A very large literature has conducted social assistance or insurance randomised controlled trials (RCTs) in developing countries. We briefly review this literature below.

The first pillar of this literature is on cash transfers. Haushofer and Shapiro (2017, 2018) compare the impact of different types of disbursements in an experiment in Kenya with the NGO GiveDirectly. They find a positive effect on monthly consumption both 9 months and 3 years after the transfer begins.

Many cash transfer programmes around the world are conditional (known as Conditional Cash Transfers, or CCTs). That is, people only receive them if they adopt a certain behaviour or actions, usually related to health or education. There is evidence that CCTs increase school enrolments (Schultz 2004, Barrera-Osorio et al. 2011, 2019) and child health (Gertler 2004) but their effects on labour force participation are low (Skoufias and Di Maro 2007). A number of recent studies document promising long-term impacts of CCTs on health and human capital (Cahyadi et al 2018, Millán et al. 2018, Millán et al. 2019), but these positive outcomes do not necessarily translate into transformative change in the economic conditions of recipients (Cahyadi et al. 2018, Baird et al. 2016). By contrast, Parker and Vogl (2017) document substantial effects of the Education, Health, and Nutrition Programme (Programa de Educación, Salud y Alimentación: PROGRESA) in Mexico on early adulthood outcomes, including educational attainment, geographical and sectoral mobility, and labour market outcomes, especially for women.

Baird et al. (2011) compare the effect of conditional versus unconditional cash transfers on teenage girls in Malawi. The conditional treatment is based on school attendance. They show that CCTs lead to fewer dropouts and a higher English level. However, as some of the girls in the conditional treatment arm had no choice but to drop out of school and lose access to the transfers, teenage pregnancy and marriages were more prevalent in the conditional group than in the unconditional one. Benhassine et al. (2015) argue in their evaluation of an education-based cash transfer programme in Morocco that labelling the transfer as an "education support programme" had about the same effect as implementing conditionality, a point also discussed in Barrera-Osorio et al. (2019).

A number of studies have examined the impact of short-term employment opportunities given by the state to the poor. One of the main programmes evaluated is the National Rural Employment Guarantee Act (NREGA) in India (Azam 2012, Dasgupta 2013, Nair et al. 2013), with mixed but relatively small effects on income and consumption. A vast literature has also explored the effect of asset transfers on the ultra-poor, a work that has been led globally by the NGO BRAC. Bandiera et al. (2013, 2017) in Bangladesh; Banerjee et al. (2015) in Ethiopia, Ghana, Honduras, India, Pakistan, and Peru; Bedoya et al. (2019) in Afghanistan; and Banerjee et al. (2016) in West Bengal all find positive effects of asset transfers on consumption and food security.

The majority of the programmes reviewed so far are generally a form of consumption support. They aim at improving the livelihoods of the poor, but their impact is not likely to be long lasting nor transformative, because they cure the symptoms rather than the cause of poverty. Cash or asset transfers, by increasing the permanent component of income of the poor, can represent both a form of consumption and production support. Similarly, conditional cash transfers—because they incentivise education or increase the opportunity cost of children not attending school—could change the occupational structure of the economy. However, many of the interventions on which the above evidence is based are small in magnitude. Cash transfers worth 20 percent of a household's annual income are unlikely to have a transformative impact. Even if the full amount was invested in buying productive assets or paying for training programmes, it would likely only translate into marginal changes in the livelihoods of the poor.

To reduce poverty permanently, policies should tear down the barriers that keep the poor in bad jobs and give them the capabilities they need to become more productive.

To reduce poverty permanently, policies should tear down the barriers that keep the poor in bad jobs and give them the capabilities they need to become more productive. As such, one-off transfers which are very large in magnitude are likely to be more effective for production support than monthly disbursements which tend to focus more on consumption support. That does not necessarily mean that the set of existing social protection programmes should be radically changed, but rather, that the lens through which we evaluate them should be different. To illustrate that point, we see the issue of social insurance going beyond the need for consumption smoothing. Agricultural insurance could allow farmers to plant more or adopt riskier but more productive technologies (Cole and Xiong 2017, Allen and Atkin 2016). Health and unemployment insurance could allow the poor to engage in more productive jobs, potentially farther from home, away from where the family-based safety nets are usually located. As such, insurance can also be seen as a form of production support.

At the centre of our argument is the need to shift more attention to the efficiency rationale of poverty reduction. Interventions should focus on eliminating the market failures that prevent people from rising out of poverty. In other words, these programmes should *break poverty traps*. This is how social protection programmes could have an important impact on aggregate productivity and economic growth: allowing individuals to meet their potential. The efficiency rationale and its focus on production support reflects the need for policy to focus on social and economic mobility, rather than on inequality per se, if countries are to shift individuals permanently out of poverty.

We believe more research on these issues is critically needed to inform policymakers about how to design poverty reduction programmes to actually have an effect on structural change and economic growth. Both social insurance and social assistance should be part of that agenda. We have already discussed above how social assistance programmes can provide a form of production support. Incomplete markets or a lack of insurance can also prevent the poor from making optimal occupational decisions (Karlan et al. 2013). Barriers to intergenerational mobility (Asher, Novosad, and Rafkin 2018) or spatial mobility (Kraay and McKenzie 2014) also generate poverty traps. Health insurance deserves more attention (Gertler and Gruber 2002). Case and Deaton (2005) argue that stress—and in particular, health-related anxiety—is higher among the poor. Health insurance may be necessary, and not just to smooth consumption. If health generates sizable positive externalities through limiting the spread of disease, state-provided free medical services could lead individuals to make better health decisions than they would make privately, which in turn can impact aggregate productivity.

The future of work will also likely create a stronger need for insurance against labour market risks (Packard et al. 2019). The vast majority of the extreme poor are informally employed, and thus their likelihood of unemployment is high. Unemployment insurance could allow the poor to engage in activities that are riskier but more productive and high earning. Gerard and Naritomi (2019) argue that severance pay, despite being prevalent in developing countries, is not enough to ensure consumption smoothing for laid-off workers in Brazil who are present-biased and so over-consume at the time they receive their payment. Policy around the disbursement of job displacement insurance seems particularly important for welfare and could in turn impact job-search incentives. Because the government has a limited capacity to track who is employed or who is not, innovative solutions must be put in place in order to provide a form of unemployment insurance to the poor. We return to the issue of targeting more broadly in Section 3.b. Pension systems have also shown promising effects on the outcomes of the next generation (Aizer et al. 2016).

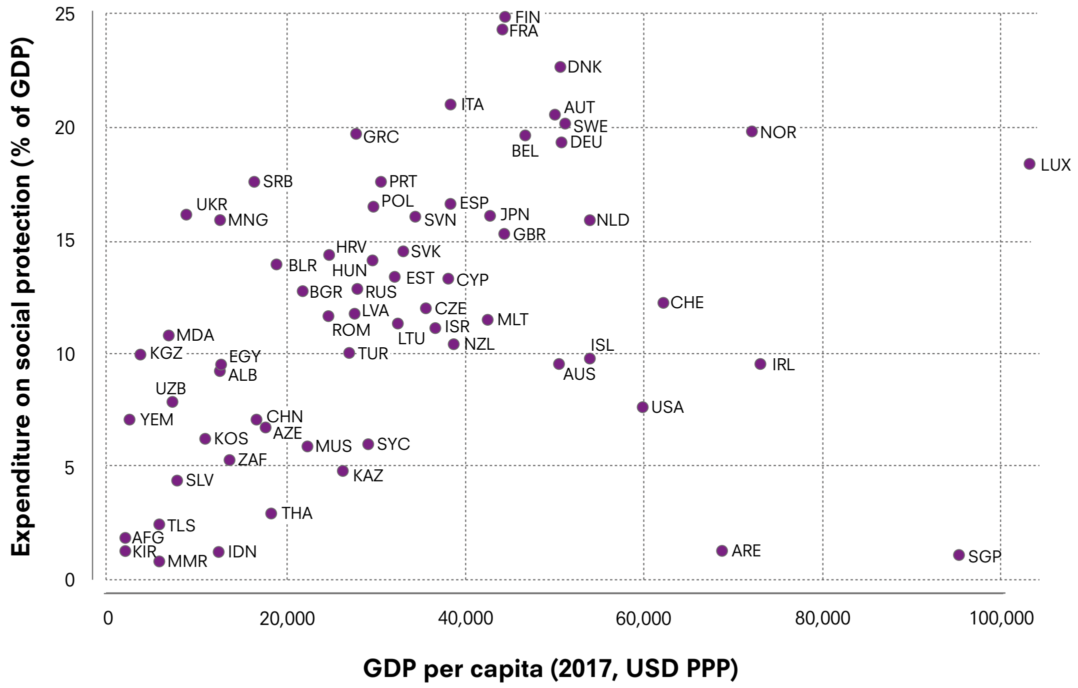
More broadly, there is a need to build a comprehensive policy package of social insurance that pools and addresses the main risks faced by the poor. A cross-cutting theme that emerges is that, when thinking about designing effective systems to promote preventive health, increase savings, and insurance adoption, one cannot ignore the issues raised by psychology and behavioural economics (see Kremer et al. 2019, for a review of behavioural development economics). We encourage further research in that area as well.

One of the consequences of embracing a production-support approach for research on social protection is the importance of moving away from consumption in the short run as the outcome of interest. Some interventions may induce households to alter their savings, leading to a non-significant temporary change in consumption but a meaningful transition in the long run. This raises a challenge for researchers, as measuring the steady-state level of consumption from a given intervention requires a long window of time. Yet, the set of variables of interest should at the very least be broader than consumption and should include outcomes such as savings, investments, or other capabilities that could have a more permanent impact on the livelihoods of the poor.

iii. A big push?

Given the current challenges we face around poverty reduction, and given the large potential poverty reduction programmes have to increase economic growth, resources dedicated to poverty reduction need to be increased.[5] However, government spending on social protection is very low in developing countries, as shown in Figure 1 below. As a percentage of GDP, middle-income countries spend about half of that of high-income countries in these areas. It is also worth noting that for low-income countries (right above 1,000$ PPP), there is either no data or spending is close to zero.[6]

FIGURE 1 **Expenditures on social protection programmes (% of GDP)**



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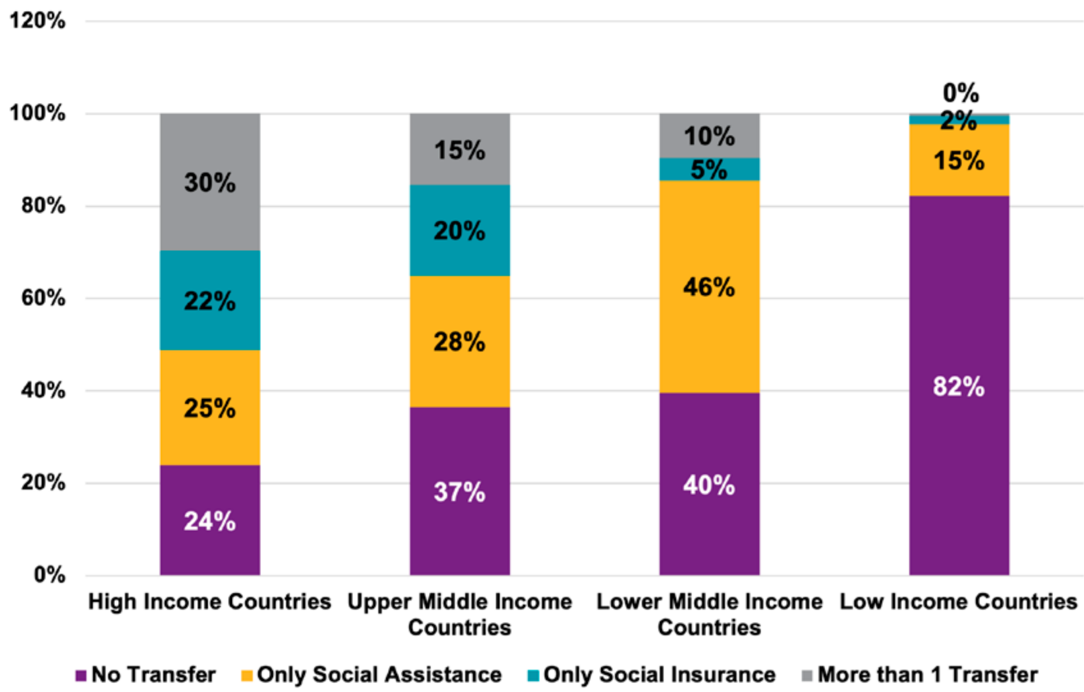
5 Clemens and Kremer (2016) even argue that reducing extreme poverty should be the World Bank’s only goal.

6 Source: IMF

The World Bank gathers household survey data[7] from a wide range of countries to explore the coverage of social protection. Figure 2 below presents the share of the population who receives social insurance and/or social assistance by country income classification. In low-income countries, which consist mostly of sub-Saharan African countries, 82 percent of the population does not receive any social insurance or assistance and virtually no one collects both. This contrasts with high-income countries where only 24 percent of the population does not receive any program (and may not need support in many instances) and 30 percent of the population getting both assistance and insurance. Social protection is either missing or very small in low-income countries, where it is actually needed the most. The lower incidence of social protection programmes in developing countries therefore stands in direct contrast to the greater need for such programmes.

FIGURE 2 **Social protection coverage—share of population receiving social programmes**



To increase aggregate productivity and generate higher rates of growth, it is necessary to increase the magnitude of state-run social protection programmes at both the intensive and extensive margins. At the intensive margin, theories of poverty traps stress that to deliver permanent change, interventions need to overcome the inflection point in the S-shaped dynamic function of cap-

7 Source: http://datatopics.worldbank.org/aspire/home

ital. At the extensive margin, governments need to think about what mixture of conventional and big-push programmes is needed to eliminate extreme poverty. The development path typically involves a series of discontinuous jumps in various economic factors, one of which could be the distribution of occupational abilities. The big-push model traditionally relates more to investment in physical capital, but it is clear that the intuition that applies there should also cover human capital. One could think, for example, of big push programmes involving vocational training targeted at getting people out of unproductive occupations and into more productive ones.

This need to make social protection in developing countries universal and larger in magnitude translates into two very challenging implementation questions that research can provide support on.

The first comes from the observation that since so few low-income countries have state-run social protection programmes, and middle-income countries spend little money on social protection, there must be important constraints that policymakers face in setting up these programmes. The lack of resources to fund these programmes is probably the first-order barrier. We discuss how the state can raise more funds in Section 3.a. Capacity and informational constraints may also reduce the efficiency of these programmes. Additionally, political motives may play a role, particularly when it comes to "selecting" recipients. We review the issue of targeting in Section 3.b. Are these constraints the same that now-high-income countries faced on the path to economic development? If so, what can be learned from this experience for low-income countries? How do these constraints evolve with development? Do new developments in technology alleviate some of these constraints? All these questions are important as we seek to understand the main challenges policymakers face in setting up social protection programmes and how they can be addressed through innovative policies.

The second big challenge relates to the need to increase the number of social protection recipients in developing countries. While RCTs can be informative in assessing which intervention is likely to be effective or have the highest impact, they provide limited insight into the general equilibrium consequences of implementing these interventions at scale. For example, the increase in demand from cash transfers to the poor could significantly increase prices of basic crops, thus reducing the impact of the programme. Research on the general equilibrium effect of social protection is scarce. A few exceptions include Imbert and Papp (2015), who study the effect of NREGA on employment and wages in private firms, and Imbert and Papp (2019), who report important rural-urban migration flows caused by NREGA and use a gravity model to quantify their impact on wages in urban markets. This area of research is critical to making progress on assessing the full impact of social protection programmes in developing countries.

Next steps and research priorities

- **How can we design social insurance and social assistance transfer programmes to have a transformative impact on the lives of the poor?**
- **How can the insight from behavioural economics be used to design more effective social protection programmes?**
- **How should employment insurance be designed in developing countries?**
- **What are the main constraints of implementing state-run social protection programmes at scale?**
- **What are the general equilibrium effects of social protection programmes?**

B Labour market policies and occupational transformation

While social assistance and social insurance are important elements of the policy toolkit for lifting people out of poverty and making growth more inclusive, facilitating occupational transformation on the scale needed to eliminate extreme poverty by 2030 requires urgent action to remove the market failures that limit the productive *opportunities* and *capabilities* of the poor. The first involves removing the external barriers and the market failures that prevent productive people to reach high-earning and productive jobs. The second is about raising the skills of the poor to make them more productive.

i. Getting productive people into productive activities

Removing the external market failures that prevent the poor from reaching productive jobs is a first-order priority for economic development, as it reduces poverty and increases productivity.

One such barrier is credit constraints, which restrain the poor from acquiring the assets that would increase their flow of income (De Mel et al. 2008). Bandiera et al. (2017) show that women earn significantly more working in livestock than in crop-based agriculture, yet they cannot afford the productive assets necessary to move into this sector. Similarly, a vast literature has found that cash or in-kind grants offered to small-scale entrepreneurs can engender high returns, at least in the short run (De Mel et al. 2008, Fafchamps et al. 2014, McKenzie and Woodruff 2008). By contrast, microfinance typically does not have a transformative impact on recipients (JPAL 2015). The type of capital and the people targeted are likely to be important determinants of the potential for efficiently removing credit constraints. These issues are also explored in the IGC evidence paper on Firms, Trade, and Productivity.

Credit constraints can also create sizable distortions in labour markets. In a field experiment in Ethiopia, Abebe et al. (2019a) show that high-quality job candidates face higher application costs on average. Applying to formal jobs typically requires paying for public transportation and investing time in a long in-person application process. In this context, a US$ 4.5 subsidy for making a job application increases the quality of the pool of applicants in a way that is comparable to doubling the wage for the same role. Reducing migration costs can also lead to significant welfare improvements (Bryan and Morten 2015, Lagakos et al. 2017). Finally, providing trainings to increase capabilities in showcasing and signalling skills can also generate significant labour market returns for participants (Abebe et al. 2019b).

Marginalised groups, despite being trained and skilled, typically face fewer employment opportunities. Early marriage and social norms inside the household prevent women from meeting their full economic potential (Ali et al. 2017). As referrals for jobs are common in developing countries, discrimination also prevents women from accessing the jobs that match their talent. In a recruitment drive in Malawi, Beaman et al. (2016) show that men, despite often knowing a large pool of qualified female applicants, typically do not refer many women to jobs. Ethnic divisions can significantly reduce firm productivity (Hjort 2014). Reducing discriminations in labour markets could have a significant effect at the aggregate level. Hsieh et al. (2013) argue that between 20 and 40% of growth in the US between 1960 and 2010 can be attributed to the entry of talented women and black people into the labour market.

ii. Raising people's productivity

Removing market failures can remove the external barriers that prevent the poor from accessing productive jobs. However, the timing is also important. By adulthood a number of traits and attributes—including negative ones that can make the poor unfit for productive jobs—are anchored in one's personality.

A large body of research from high-income countries shows that initial labour market conditions have a persistent impact on future employment opportunities. The youth needs to be equipped with the right skills to enter the labour market. This is even more important in developing countries, where youth populations are high relative to the total population and very large cohorts of individuals make the transition from school to work every year. Promoting vocational trainings or apprenticeships are thought to be the natural policy to implement in response. In a randomised experiment, Alfonsi et al. (2019) show that vocational training, which certifies general competencies, generates higher labour market returns than apprenticeships. Traditionally, for most of these programmes, the state does not deliver these services directly.

However, it can critically impact this sector through subsidies, facilitation policies, or quality certifications from private providers. The potential lack of incentives for the youth considering signing up for such programmes is also relevant. Information frictions can reduce the perceived rate of returns of vocational training programmes (Jensen 2010). Cultural norms for other curricula can also reduce preferences for such programmes.

Given the current rates of youth unemployment in the developing world, particularly in sub-Saharan Africa, we believe this arm for occupational transformation is the most critical in bringing about rapid structural change. While the general education and knowledge provided by primary and secondary schools are decisive in developing literacy and autonomy, complementary skills are essential for the youth to contribute to productivity growth in low-income countries. Only about 40 percent of the extreme poor have completed primary school (Castaneda et al. 2018), suggesting that educational attainment alone may not be enough to lift people out of poverty. Traditional margins of educational attainment, such as access to schools, retention across grades, and completion of key stages in early life remain essential components of human capital formation—but this last stage, school-to-work transitions, may have been overlooked until now.

Next steps and research priorities

- **How can we design "big-push" transfer programmes that transform the labour market and production activities of the poor? How can these programmes be scaled up by governments?**
- **What are the main barriers that prevent productive people from getting productive jobs? What public services and policies can remove these frictions?**
- **How can discrimination in labour markets be decreased?**
- **What are the most effective professional training programmes for the youth? What is the appropriate role of `hard' and `soft' skills in such programmes? How can these programmes be made more attractive?**

C Other state-provided services and the marginal value of public funds

The range of services the state provides is much wider than the pro-poor growth policies we have described so far. Many of these fit into other IGC evidence papers on Firms, Trade, and Productivity; Cities; and Energy and Environment.

This necessitates creating frameworks that enable us to compare the marginal value of public funds.

Research in development economics has made considerable progress over the past few decades in terms of developing reliable empirical techniques to measure the impact of various interventions, including government programmes and state-provided services. Yet, these developments on their own do not provide much guidance to public finance, where the main consideration is where to allocate public funds across a wide range of possible programmes.

Research in public finance has long developed transparent frameworks to assess the welfare impact of a wide range of public policies from empirical causal estimates. The fundamental idea is to express, in terms of easily identifiable empirical moments, both the marginal benefit and marginal cost of a given policy. For instance, Hendren (2016) and Finkelstein (2019) present a recent framework, and Hendren (2019) applies it in comparing the marginal value of public funds (MVPF) across many different policies in the US.

We strongly support researchers that aim to develop a means of comparing different potential state investments and attempt to apply these frameworks to the data in a developing-country context. This could be to measure differences in the MVPF across public services within a country, or to measure the same government intervention across countries. In low-income countries, where all public services are typically lacking and all seem first-order priorities, overcoming policymakers' initial intuitions about where costly state interventions are most needed and informing them with evidence about the relative cost and benefits of alternatives, could allow for a significant jump forward in state spending efficiency.

Next steps and research priorities

- **Bringing the frameworks around the marginal value of public funds to the data:**
- **What is the differential welfare impact of a given social protection programmes across countries?**
- **How does the marginal value of public funds compare across public services within a low-income country?**

4 Improving the effectiveness of state policies

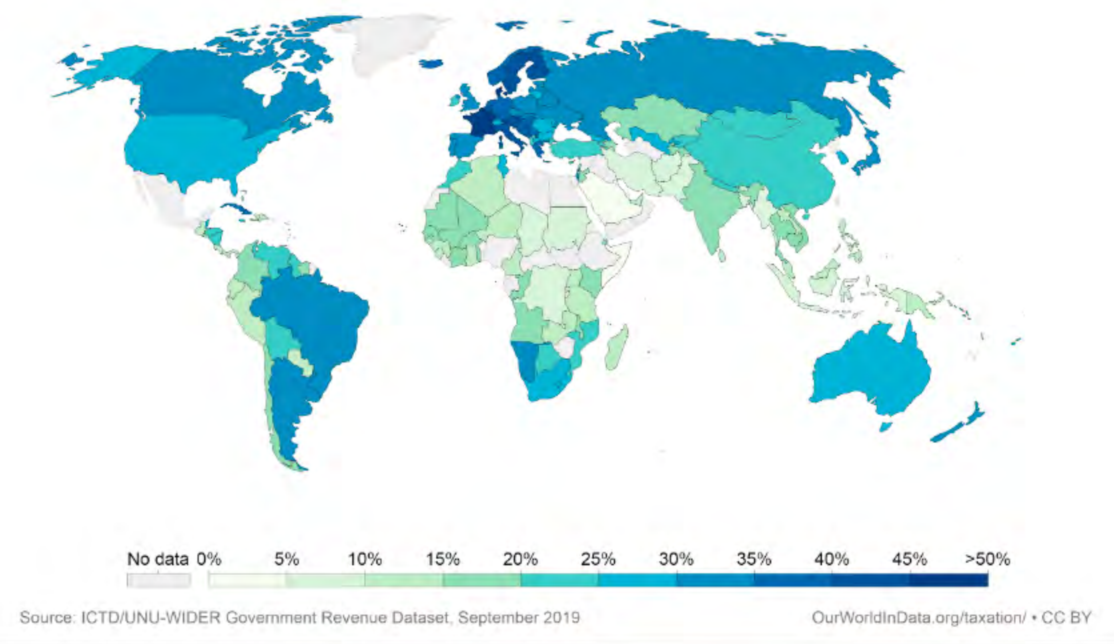
In Section 3, we described priority areas in which the role of the state is critical to hasten structural change and economic growth and to reduce poverty. We now turn to the question of how the state can reach these objectives. This includes mobilising resources to finance ambitious state-run programmes, but also making sure that these policies are correctly implemented.

A Mobilising resources

i. Taxes

Revenue collection in developing countries is low (Gordon and Li 2009, Kleven et al. 2014). Even relative to the size of their economies, low-income countries raise less income through taxes than high-income countries. Tax revenues are between 10 and 15 percent of GDP across most of Sub-Saharan Africa and South Asia, while they are above 35 percent of GDP in virtually all European countries (see Figure 3 below).

FIGURE 3 **Total revenue from social contributions and direct and indirect taxes (% of GDP)**



Why is increasing tax capacity in developing countries so important? After all, official development assistance (ODA) generally matches tax revenues in magnitude in low-income countries (Pomeranz and Vila-Belda 2019). Several arguments can be put forward. First, the incentives to use ODA appropriately may be lower than they are for taxes, given the stronger political accountability governments face when spending tax revenues (Weigel 2018). Second, the need for state-run social protection programmes or state-financed infrastructure is presumably higher in developing countries. This requires more resources than these countries currently have access to, even with the additional support of ODA. Third, ODA is typically volatile and prevents government from planning spending over long period of time. Fourth, although ODA flows match tax revenues in low income-countries on average, there is significant variation across countries. Aid typically flows into countries with stronger public finance institutions, which usually already have higher taxes (Gstoettner and Jensen 2010). As such, low capacity in budget administrations is a double curse. This constraint compels states to increase public finance management first, and so increase tax capacity, in order to leverage more ODA.

This section considers the potential causes of low tax revenues in developing countries. Two broad categories of issues can be distinguished. First, while tax rates can be large in low-income countries, there is often a big difference between tax in the law and tax in the treasury (Slemrod 2007, 2018). The explanation is simple: Many firms or individuals do not comply with tax requirements. The second range of issues concerns tax policy. Are developing countries taxing appropriately? The performance of tax policy can be measured in terms of production efficiency (making sure taxes minimise distortions), revenue efficiency (making sure the government can finance its activities) and "equity efficiency" (making sure that the post-tax and transfers income distribution is fair).

We use tax compliance and tax policy as a framework for our discussion, but we focus more on potential ways to improve tax collection than on understanding the fundamental causes of low tax capacity in developing countries. While the latter is necessary for the former, policymakers critically need implementable solutions to increase tax enforcement and design better tax schemes. Fortunately, the recent availability of tax data in developing countries and the recent collaborations between researchers and tax authorities has allowed the literature to make considerable progress on these issues over the past decade (Pomeranz and Vila-Belda 2019). We review this literature below.

Audit, deterrence, and behavioural responses

Increasing compliance is a challenging task. The classical starting point on this issue is to consider that individuals and firms comply with their fiscal obligations if the expected cost of not complying outweighs the costs of paying taxes (Allingham and Sandmo 1972). To raise the expected cost of not complying, governments can increase both the probability of detecting fraud and the penalty paid if found non-compliant.

The literature on increasing penalties is scarce. One exception is Aparicio et al. (2011), who evaluate the impact of a reform in Ecuador that introduced the threat of prison time for CEOs of firms that were evading tax regulations. The new law led to a 10% increase in corporate tax payments.

On the probability of detection, one direct way of making the threat real is to conduct audits. In high-income countries, a number of papers have documented a positive and long-lasting effect on the income reported by audited individuals. In developing countries, evidence on the effect of audits is rare, perhaps because they are costly to implement and have potentially little return due to a lack of enforcement.

An alternative, less-demanding mechanism could be the use of deterrence or reminder messages. In a collaborative experiment with the tax administration in Uruguay, Bérgolo et al. (2019) document the positive impact of sending letters reminding firms about the probability of audit or the cost of evasion. Taxes paid increased by 6-7 percent. This confirms the findings of other papers in other contexts that deterrence messages tend to have a significant impact on evasion (see Pomeranz and Vila-Belda 2019 and Slemrod 2019 for recent reviews). The design of the experiment and the survey data collected, however, suggest that the letters do not serve as an informational update on the probability of being audited, which in turn alters the cost-benefit analysis of complying. Instead, the results are consistent with a risk-as-feelings model, where individuals respond more quickly and automatically than a rational expectation-based approach would predict.

A number of papers have looked at how the delivery methods of deterrence messages impact compliance. Perhaps unsurprisingly, Ortega and Scartascini (2015) show that messages delivered in person increase tax payments more than any other channel. Emails or text messages may be also be cost-efficient alternatives to letters (Mascagni et al. 2017, Ortega and Scartascini 2015).

Finally, to increase compliance along the extensive margin, positive incentives such as lotteries could be put into place. These raise the potential benefits of complying, though most of the effect is likely to come from taxpayers' behavioural response. Carrillo et al. (2017) show that being selected in the lottery has a positive impact, but only in the short run. Winning the lottery prize however has strong and persistent effects which spills over to neighbours. By contrast, Dunning et al. (2017) show that randomly awarding tax holidays to compliant taxpayers has the opposite effect as the intended one: Recipients reduce their payments after the holiday ends.

Overall, the evidence suggests that emotions such as fear or luring on compliant neighbours may be a more promising theoretical framework for increasing compliance than the traditional rational cost-benefit analysis of compliance that taxpayers are expected to make. Better understanding the behavioural responses of individuals and firms to deterrence messages or lotteries remains an important area of research, as it may be the most inexpensive way of increasing compliance in low-income countries.

Tax morale and social norms

Building on the principles of behavioural economics to increase compliance, another important factor is tax morale. In high-income countries, despite low audit probabilities and small penalty rates, compliance is high. Thus, it must be that other factors lead individuals and firms to voluntarily abide by tax laws.

Luttmer and Singhal (2014) review the literature on tax morale. The range of possible mechanisms that increase morale is wide. First, pride, positive self-image, honesty, and a desire to comply with the law when paying taxes (or guilt and shame when not doing so) are all elements of intrinsic motivation (see Dewenger et al. 2014 and Boyer et al. 2014, who show evidence for intrinsic motivation for church taxes in Germany). Simple nudges about the average level of compliance in a taxpayer's neighbourhood can significantly increase their willingness to pay (Del Carpio 2014). Slemrod et al. (2018) estimate the impact of two compliance programmes in Pakistan—one where the government published the liability of all taxpayers, and another where the government publicly rewarded the top 100 taxpayers in various categories. Both programmes significantly increased tax revenues.

Second, perceptions of how fair taxes are, how wisely tax revenue is spent, and the legitimacy of the party in power all impact the relationship between the state and individuals and so affect compliance rates. In particular, the type of services the state provides to its citizens (see Section 2) and whether these are implemented in practice (see Section 4.b) are likely to be important determinants of tax morale. In the same vein, perceptions about corruption or leakages in state programmes (Section 4.b.1) could also increase tax morale, creating a double dividend of fighting corruption.

While non-pecuniary motivations to comply with tax rules are well understood by policymakers, there is very little evidence on the quantitative importance of tax morale in explaining compliance, particularly relative to extrinsic factors. There is even less research into how tax morale can be increased, especially since many of its factors are, by nature, difficult to influence. Finally, more research is needed to understand the relationship between tax enforcement and intrinsic motivation, as tax officials often worry that publicly increasing audit or penalty rates may reduce voluntary compliance.

Third-party information and VAT

One of the main reasons that individuals in developing countries perceive the probability of fraud detection to be so low is the absence of third-party information. In high-income countries, governments can easily cross-check the information provided by taxpayers against other sources of information. Taxpayers thus internalise that the probability of being audited conditional on evading is much higher than when being compliant. Third-party information is probably the most important pillar on which modern tax systems are built. Reflecting on this, Jensen (2019) documents why the transition out of self- and informal employment over the course of economic development is partly responsible for the parallel increase in tax capacity. Formal employment leaves information trails that states can rely on to increase tax compliance. Abstracting from personal income tax, information from the financial sector or directly from firms' submissions to other stakeholders also provides third-party data for monitoring corporate compliance. In low-income countries, third-party information is typically either lacking or unreliable, which significantly reduces the potential for "self-enforcing" tax compliance mechanisms.

One exception is value-added tax (VAT). On top of its production efficiency properties, which we return to in the tax policy section, the VAT instrument typically requires parties on both sides of a transaction—the supplier and the buyer—to provide information about its value to tax authorities. As the tax is imposed on the value-added portion of total sales, downstream firms face strong incentives to ask for transaction receipts from selling firms, which they can then deduct from their total sales in their own VAT declaration. The incentives of the supplier to under-report sales are confronted by the incentives of the buyer firm to over-report its input purchases. These indirect compliance benefits may even spill over into the value chain (Waseem 2019). If buyers ask for accurate receipts, firms have incentives to ask for accurate receipts from their suppliers too, in order to reduce their tax burden. Pomeranz 2015, through two indirect randomised experiments in Chile, provides evidence at the micro level for this self-enforcing property of the VAT.

For a long time, whether to adopt VAT as a tax policy was the most important issue for developing countries (Keen and Lockwood 2010). VAT has now been adopted in more than 160 countries and across 80 percent of sub-Saharan Africa (Gerard and Naritomi 2018, Keen 2016). Thus, attention has shifted toward understanding whether adopting VAT translates into sizeable tax revenue growth. Keen and Lockwood (2010) show that there is significant heterogeneity across countries in how VAT impacts the GDP share of tax revenue, particularly in sub-Saharan Africa.

Several factors may be responsible for why VAT adoption does not necessarily translate into a higher tax capacity. First, third-party information can only be collected if transaction receipts are actually being generated. While paper is a potential solution, advances in technology offer a cheaper way of producing and gathering transaction records and making sure the right amount of VAT is being paid. Ali et al. (2015) find that the introduction of electronic sales registry machines increased tax payments by 20 percent in Ethiopia. Eissa and Zeitlin (2016) find slightly smaller revenue gains from electronic billing machines in Rwanda—5.4 percent on average. Even outside of VAT, e-filing can generate significant gains, from reducing compliance costs to curtailing corruption (Okunogbe and Pouliquen 2018). Yet, there is still limited evidence of the cost efficiency of e-filing reforms in low-income countries. Devices could be too expensive to be covered by the additional tax revenue generated from their use. Moreover, in low-income countries, the state or even taxpayers may not have the capacity to fill in tax returns properly. We encourage further research in this area.

The second flaw relates to the last node in the value chain: the transactions between retailers and consumers. Final consumers, as opposed to firms inserted in the value chains, face no particular incentive to ask for VAT receipts. In some instances, they may even collude with retailers so that part of the VAT is discounted from the final price. Similarly, they may be worried that retailers will increase the price of the good they are buying if they ask for a receipt (Campbell et al. 2017). Randomly sending mystery shoppers around stores in Rwanda, Eissa and Zeitlin (2016) show that the use of electronic billing machines increases substantially if consumers formally request a receipt. Mittal and Mahajan (2017) show that the introduction of VAT transaction-level reports significantly increased tax collection for wholesalers but not for retailers. Naritomi (2019) evaluates a policy that aims at solving this issue. In Sao Paulo, Brazil, consumers had the option of providing their taxpayer identification number to be add to VAT receipts. Receipts were then used as lottery tickets for consumers. In parallel, a website also allowed whistle-blowers to identify fraudulent retailers. This led retailers to increase reported revenue by 20 percent over four years.

The final glitch in VAT is the capacity of governments to cross-check supplier and buyer tax returns. Almunia et al. (2019) report that buyers and sellers declare different values in 79 percent of transactions in Uganda. Assuming that the fraudulent nature of firms is fixed and does not vary significantly across the business partners they deal with, they estimate that about 70 percent of these misreports are strategic, with firms reporting transaction values that reduce their tax liability. Mittal et al. (2018) develop a machine-learning algorithm to identify "bogus" firms—companies that sell false paper trails to reduce their clients' tax burden. Finally, as audit probability is often proportional to firm size, firms face incentives to appear smaller and reduce the number of reported transactions on both the purchasing and selling side (Carillo et al. 2016), which further challenges non-compliance detection. Additionally, most developing countries have a threshold under which firms do have not comply with VAT laws. The costs associated with universal tax registration are most likely higher than the benefits. In turn, firms may artificially reduce their sales to be exempted from the tax (Gerard et al.2018). Exempted firms, like consumers, also face lower incentives to ask for transaction receipts.

In sum, while VAT offers the potential to raise tax capacity in developing countries through the opportunity of gathering third-party information, several complementary policies are typically needed to make these gains materialise. We encourage further research on this issue, particularly in low-income countries and fragile states, where the challenges of implementation and fraud detection are likely to be more acute.

Third-party information can also be provided for personal income tax by employers. As we note above, formal employment is not commonplace in low-income countries, but tax compliance could be another motive for promoting it. Yet, firms may collude with workers to underreport wages, particularly small businesses (Best 2014, Kumler et al. 2015). However, when pension schemes are proportional to wages, these temptations may be reduced (Kumler et al. 2015). Borckmeyer and Hernandez (2018) show in Costa Rica that for personal income tax, tax withholding can act as an effective compliance mechanism. Finally, third-party information can be gathered through financial records. Thus, the transition to more "modern" and trail-based means of payment could indirectly benefit tax authorities in developing countries.

Tax evasion at the border

Despite the highest potential for tax enforcement on imports and exports, evasion of tariff duties is still commonplace in developing countries. Fraud can take the form of misclassifying product codes in invoices (Fisman and Wei 2004), finding alternate duty-exempt shipping routes (Yang 2008), or paying bribes to customs agents to reduce the tax bill (Sequeira and Djankov 2014). Illustrating the importance of the second channel, Sequeira (2016) shows how trade quantities respond weakly to a fall in de facto tariffs, suggesting a large gap between de jure and de facto rates. In this environment, trade facilitation services and streamlines procedures at the border could increase trade flows and so indirectly customs tax revenues. Given the quality in the data collected at the border and the importance of tariff duties in total government revenue, we believe studying tax compliance through customs is a promising area for future research.

The role of collectors and tax administrations

For most tax instruments, civil servants play an important role in assessing tax liabilities and enforcing tax laws. Given their low earnings, they are typically not incentivised to perform; rather, they may be tempted to collude with taxpayers to reduce their tax burden. Khan et al. (2016) conduct a random experiment where property tax collectors in Pakistan are given an average of 30 percent of all tax revenues they collected above past records—which on average, for treated individuals, corresponded to doubling their salaries. While the intervention had promising effects for tax revenue, for many properties, owners reported increased bribes with no significant changes in taxes paid in parallel. In the Kyrgyz republic, Amodio et al. (2018) evaluate the effect of a feedback mechanism whereby company tax collectors are rewarded based on the evaluations submitted by audited firms. This intervention significantly reduced bribes, which in turn increased tax revenues and reduced firms' prices. Other non-pecuniary incentives may also improve efficiency. These include performance-based mobility schemes, for which Khan et al. (2019) document a positive impact for property tax collectors in Pakistan. Social incentives may also be important in tax administrations (see Ashraf and Bandiera 2018 for a literature review of how social interactions affect organisations).

We believe that understanding how more efficient state organisations impact tax compliance is a promising new research agenda (see Pomeranz and Vila-Belda 2019 for additional support). In particular, while many development finance institutions and aid institutions recommend the implementation of tax administration best practices from OECD countries, such as using high-end IT systems, there is no rigorous evidence on the impact of such reforms on tax revenues collected or even on the efficiency of tax administrations. To guide this agenda, Keen and Slemrod (2017) develop a theoretical framework for designing optimal tax administration interventions, allowing comparability between policy and administrative reforms. In a recent paper, Basri et al. (2019) show that a tax administration reform was equivalent to a 23-percentage-point increase in the corporate tax rate. The important take-away from this paper is that there is potentially a lot more to gain from tax administration reforms than from tax policy reforms. Comparing the relative cost and benefit of administrative and tax policy reforms is an area that would greatly benefit from more research.

The important take-away from this paper is that there is potentially a lot more to gain from tax administration reforms than from tax policy reforms.

Compliance and distortions

The issue of tax compliance does not solely relate to increasing tax capacity. Unequal tax enforcement across firms or sectors creates sizable distortions in the economy. Firms may avoid activities that generate higher economic returns to escape taxation. Governments tend to strengthen enforcement where it is least expensive to do so, and this may be at the cost of economic efficiency. Increasing deterrence in some places but not others typically creates substitution effects from formal to informal sectors or from formal employment to self-employment. Significant progress in this area is likely to arise from efforts to link survey data on both the formal and informal sectors to administrative data on taxes and social security. This would enable researchers not only to measure the effects of tax policy on the informal sector, but also to disentangle actual and reporting responses (Chetty 2009).

Firm size-dependent compliance is particularly relevant to this issue. As they are unable to clearly observe or assess a firm's tax-payment capacity, states often rely on other indicators to design tax policies or guide their auditing strategy. Using data from 140 countries, Bachas et al. (2018) show that tax enforcement increases with size and that size-dependence reduces along the development path. When it comes to VAT, many countries impose thresholds under which firms may not be liable or may need to report transactions at a lower frequency. The compliance costs of VAT may be too high for small firms or for the state itself. In turn, this leads to bunching right below the line, a signal for tax evasion (Luksic and Mittal 2018). Additionally, Gadenne et al. (2019) show that these VAT thresholds distort firms' supplying decisions and create segmented value chains. At the extreme end of the size distribution spectrum, making multinational corporations comply with local tax laws may also be particularly challenging for developing countries (Bustos et al. 2019).

Tax policy

State strategies to increase tax revenues should not only focus on ensuring that the current tax laws are enforced. Governments also decide on the set of tax instruments to use, and these may vary substantially across countries. There is no universal optimal tax policy. The level of economic development and the structure of the economy are important inputs that should drive the building of tax policy.

Tax policy with low enforcement capability

The issue of tax policy is not necessarily distinct from tax compliance. In an environment with low tax enforcement, it may be more efficient to use specific tax instruments rather than others (Gordon and Li 2009). This is typically why low-income countries collect a higher share of their income through tariffs, which are easier to enforce given that goods typically only transit through a few entry points (Cagé and Gadenne 2018). This may also be why tax policies are biased toward firms rather than individuals, as ensuring that a handful of firms comply is less difficult than collecting information on a large number of individuals (Kopczuk and Slemrod 2006, Slemrod 2008). However, these tax schedules may not be production efficient. In other words, assuming no evasion and no administrative costs, differing tax policies may generate fewer or less-sizable distortions to collect the same levels of revenue.

Best et al. (2015) provide a rationale for why many developing countries may prefer more distortive policies, such as taxes based on turnover rather than profits. The intuition is simple. As turnover is a much broader base than profits, the turnover tax rate is typically below one percent. As such, it does not introduce a very large distortion on production choices. By contrast, the shift to a profit tax significantly increases evasion opportunities, reducing revenue efficiency. This is because it is typically easier to artificially increase costs than it is to conceal revenues. In Pakistan, the authors estimate that turnover taxes reduce evasion by up to 70 percent of corporate income. In a bunching analysis of the corporate income tax regime in Costa Rica, Bachas and Soto (2018) also provide evidence that self-reported costs provide important evasion opportunities.

This does not mean that revenue efficiency should be the sole focus of policymakers or that any concern around production efficiency should not be abandoned. For example, in a recent paper, Agrawal and Zimmermann (2019) document the output benefits of switching from a sales tax to VAT in India, which restrained double-taxation-induced distortions.

A large fraction of firms in low-income countries are informal and so can easily evade taxes. In turn, this can impact consumers and welfare. Bachas et al. (2019) show that the poor tend to shop more in informal places, so consumption taxes are actually progressive. As such, compliance interventions may have equity implications, and they may not necessarily be progressive. By contrast, Olken and Singhal (2011) argue against the view that the poor are free riding the provision of public goods, suggesting that in many instances they are "informally taxed". This could occur, for example, when the poor supply labour for building or maintaining local public infrastructure.

Marginal tax rates and evasion

Marginal tax rates are another element of tax policy that impacts compliance. Finding the optimal tax rate depends on the elasticity of evasion to the tax rate. This literature is very developed in high-income countries (see, e.g., Kleven et al. 2011, Fack and Landais 2013) but thinner for low-income countries. Boonzaaier et al. (2019) document how small businesses respond quickly to changes in marginal corporate income tax rates and bunch right below corresponding thresholds. Londoño-Vélez and Ávila (2018) document similar patterns for wealth taxes in Colombia. Waseem (2018) evaluates how tax reforms targeted to specific legal forms leads to increases in informality and business status changes. Kleven and Waseem (2013) show that even if the underlying elasticity is low, the introduction of notches—discontinuities in tax amounts generated by tax schemes—generate very strong incentives to evade.

Cost benefit analysis of tax policy

Each tax instrument implies indirect costs for states. These can take the form of implementation costs (e.g., informing the tax administration of policy changes) or collection costs (e.g., processing tax receipts from a wide range of taxpayers). Unfortunately, while the revenue gains from tax policy is at the centre of policymakers' concerns, the additional costs that come along with a new tax instrument are often only a side consideration. We encourage further research aimed at measuring the administrative costs of various tax instruments and provide a framework that incorporates them in designing optimal tax policy.

Tax incentives have also become a major tool that policymakers use to promote economic development (IMF 2014). These can be targeted toward specific investors (e.g., Foreign Direct Investment), specific regions (e.g., place-based policies), or specific activities (e.g., R&D tax credits). Figure 4 below, from IMF (2014), shows how prevalent tax holidays are in developing countries.

Yet, there is very little research on the impact of tax incentives on investment. If anything, the existing research points to an absence of correlation. In a cross-country study, Klemm and Van Parys (2011) find evidence that tax holidays and lower corporate income tax rates are effective in Latin America but not in Africa. Farole (2011) and Wong and Bubba (2017) find that tax exemptions do not lead to better performing special economic zones. Investor surveys document that tax incentive packages rank 11th out of 12 location factors for foreign investors—well below economic and political stability, the cost of raw materials, or the transparency of the legal framework (UNIDO 2011). Nonetheless, the concern is that in a world with global value chains and fierce competition across countries to attract investment, a race to the bottom occurs (Abbas and Klemm 2013). Forgone revenues from tax incentives are rarely estimated before the policy is implemented. Additionally, the discretion with which tax incentives are generally given in low-income countries (IMF 2014) is worrying, given the impact it has on competition. This topic also relates to the issue of the MVPF already presented above; there is a need to measure the behavioural response of domestic and foreign firms to tax incentives and so the fiscal externality that comes along with the policy. Progress on this agenda will likely come from identifying who the marginal investor is when it comes to tax incentives.

FIGURE 4 **Prevalence of income tax incentives—figure from IMF (2014)**

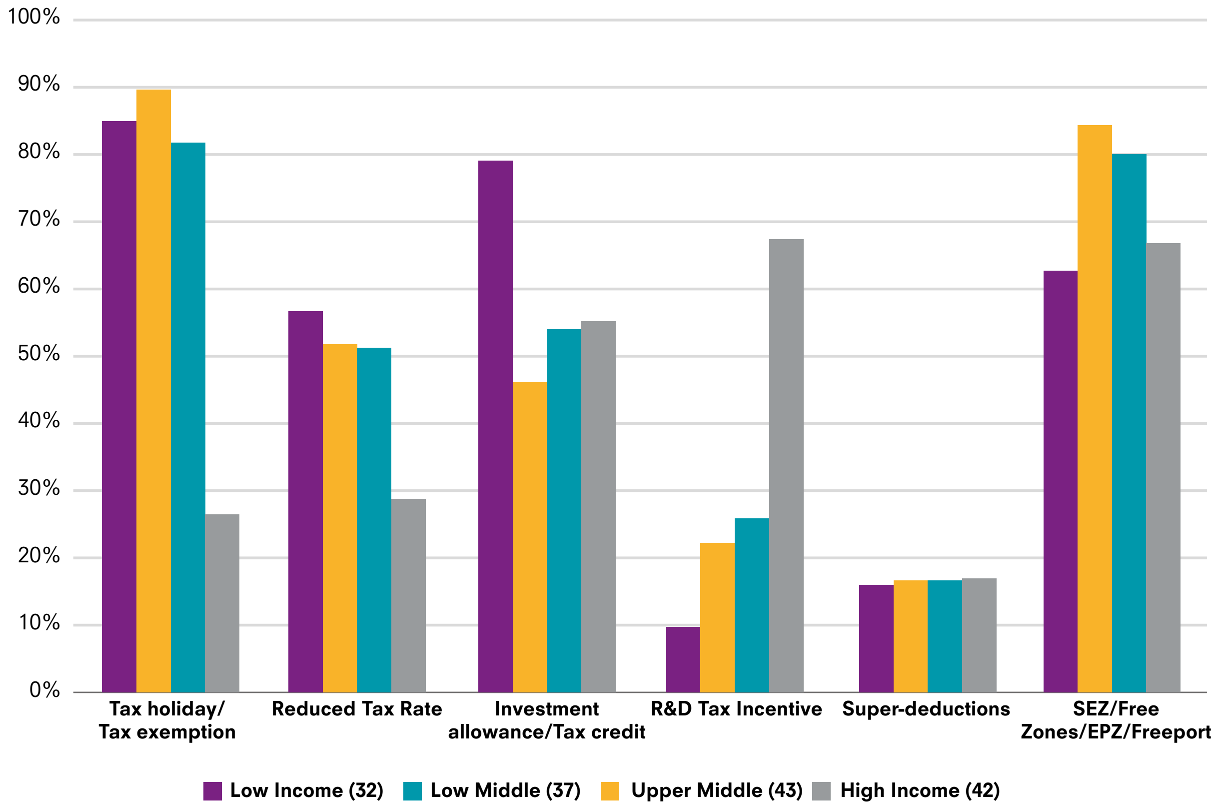


Figure shows the percent of countries in each of four income groups that have the indicated incentive. The sample size per income group is denoted between brackets.

Taxes, equity, and the political economy

One of the most important considerations for policymakers thinking about who to tax and how much to tax these different groups is the political fallout. For example, while it may be more efficient from a revenue standpoint to tax mid-range taxpayers more heavily than fighting tax evasion at the top, governments are often reluctant to do so for equity purposes. Given the strength of these political constraints, implementing "optimal" but inequality-increasing policy interventions may be difficult in practice. This revenue-equity trade-off is particularly relevant in many developing countries and so should be explored further.

One potential avenue for moving forward on this agenda would be to measure the welfare impact of various tax instruments on different groups in the population, how progressive or regressive certain tax schemes are, and how this impacts the use of these instruments by governments. In that framework, the incidence of tax policy cannot be studied in isolation. Spending, transfers, and public goods and services also need to be considered to compute the overall net-income impact of public finance policies.

Additionally, different business interests can coalesce to lobby the government and get tax exemptions. This most commonly happens for tax policy where specific industries press the government for temporary or long-term production. More broadly, fiscal rules that benefit specific voter categories, sectors, or types of firms are common in developing countries. This point obviously relates to the issue of tax incentives, which are more likely to be granted arbitrarily in low-income countries (IMF 2014). The differential ability of certain groups to form lobbies can create additional aggregate distortions in the economy (Shapiro 2019), and preferential financial treatment for connected firms has a negative impact on efficiency (Khwaja and Mian 2005).

Social or cultural norms are likely to influence citizens' likelihood of accepting changes in tax policy—or in the opposite direction, tax reforms could impact the public's willingness to supervise more directly how the state uses its resources. Weigl (2019) show that citizens in the DRC that were randomly targeted for property tax collection were more likely to attend town hall meetings or submit performance evaluations of the local government. Similarly, Flores-Macias (2018) shows that allowing for a form of public oversight or implementing earmark mechanisms in Mexico affected political support for reforms. This interaction between tax policy, social norms, public oversight, and corruption is an area that needs more research (see, e.g., Prichard et al. 2019) in order to create a framework.

Next steps and research priorities

- **Tax compliance**
  - —What are the behavioural responses of individuals and firms to messages aimed at deterring evasion or to lotteries?
  - —What is the link between social norms and tax compliance? How do corruption or anti-corruption efforts impact tax compliance?
  - —How can the 'last-mile' problem in VAT be solved? How can consumers be incentivised to ask for receipts?
  - —Developing empirical methods for the state to identify non-compliant firms (in VAT) using available data.
  - —What is the magnitude of tax evasion at the border? How can tariff duty evasion be reduced?
  - —Which tax administration reforms can improve tax compliance?
  - —In countries with a large informal sector, what is the impact of improving tax compliance in the formal sector in terms of distortions?

- **Tax policy**

  — What are the optimal tax instruments in an environment with low compliance?
  — Where along the income distribution scale are the returns to increasing tax rates the highest?
  — Under what conditions are tax incentives efficient? Do discretionary tax incentives create sizable distortions?
  — What is the tax incidence of various tax instruments? How do equity considerations influence the use of specific tax instruments?
  — How does lobbying affect tax policy?
  — How can political constraints of tax policy reforms be overcome? What interventions can increase public support for tax reforms?

ii. Management of natural resource revenues

Taxes are not the only revenue stream for the state. In many developing countries, non-renewable natural resources represent an important source of potential revenues. About 30 percent of all global mineral reserves and 8 percent of global oil reserves are in Africa, and minerals account for about 28 percent of the continent's gross domestic product (AfDB 2016). More than 25 developing countries derive more than 20 percent of their government revenues from hydrocarbon resources (Jensen 2011).

How the stock of natural resources affects government revenues – and economic development more broadly – has been the subject of a vast literature often referred to as the "resource curse" (Ross 2015, Venables 2016). Historically, despite having "easy" flows of income to tap into, countries with an abundance of natural resources experienced slower growth than countries with fewer natural resources.

The mechanisms through which this paradox arises have also been explored. The most important is likely that the discovery of natural resources often leads to conflict between political factions fighting for a share of the revenue (Klare 2002, Besley and Persson 2010), which in turn reduces growth. Jensen (2011) studies the interaction between natural resources and tax revenues and shows that an increase in resource intensity correlates with lower fiscal capacity. This, in turn, can have important consequences for efficiency. Martinez (2019) illustrates that point at the micro level. Using exogenous variation in the world price of oil, he documents that higher tax revenues translate to more spending on health and education, while higher resource royalties increase the probability of disciplinary prosecution against the municipal mayor. Similarly, Gadenne (2017) shows that local governments in Brazil spend more wisely when using tax revenues than external grants. Although natural resource revenues are different from aid flows, the lack of oversight and public pressure into how the government allocates these income flows may reduce the quality of public services in a similar way.

How can states put systems in place to maximize the revenue potential from natural resources? Standard toolkits are not yet available to help developing countries set up useful framework for managing natural resource revenues. The Norwegian model and its Government Pension Fund are now perceived as international best practice, but the political economy environment and low state capacity make it difficult to translate this model directly to low-income countries. Understanding the key political and capacity constraints responsible for the resource curse are a necessary first step to designing better institutions for the management of natural resource revenues in developing countries (Bebbington et al. 2018).

The size of resource extractors is also likely to matter for policy. How should the state monitor and regulate informal small-scale mining? In many developing countries where the state does not have the capacity to extract natural resources itself and so relies on multinationals to do so, how can government tax these companies efficiently?

Next steps and research priorities

- **How can states build more efficient governance structures for natural resource revenues?**
- **How should states tax natural resources?**
- **How should states monitor and manage informal mining activities?**

B Public sector effectiveness

Economic policies that are essential for inclusive growth are delivered by bureaucracies. Making state policies more effective requires building more efficient, capable, and impactful organisations. The state guides the implementation of a wide range of policies, particularly for private-sector development (see the IGC evidence paper on Firms, Trade, and Productivity). Macroeconomic stabilisation, attracting foreign investment, facilitating trade, increasing competition, and building and managing industrial parks is typically the main responsibility of complex agencies within the government. The optimal design of government organisations that deliver structural change is thus a central question for economic development.

We discuss public-sector effectiveness in two steps. We first present existing evidence on how to build more effective bureaucracies and highlight areas for future research on this issue. We then turn to the challenges of policy implementation. While designing policies for economic development will continue to be the central focus of future research, we argue there is a need to focus more on the barriers to policy implementation and how policy design interacts with policy implementation.

i. Building effective bureaucracies

In this section, we discuss the literature that studies the micro-determinants of inefficient public policies. Bureaucratic performance typically depends in large part on human capital (i.e., the quality of civil servants, which is determined by who applies for government jobs and how they are selected) and management capital (i.e., the mechanisms in place to monitor and incentivise their performance). We discuss below the growing body of evidence on how both human and management capital can be increased in bureaucracies. The relative importance of the two for state capacity are two strands in the literature that have yet to properly intersect.

In an analysis of survey data from a variety of countries, Finan et al. (2017) find evidence for a positive wage premium in public-sector jobs versus private ones in poor countries. Such a premium in part explains why government jobs tend to be oversubscribed, with many more applicants than available positions. This, in turn, opens up scope for governments to improve the quality of civil servants by focusing on screening applicants more effectively. From the perspective of fragile states, where the potential for raising government wages across the board is more limited, implementing more efficient screening devices for candidates offers a promising opportunity for a low cost. What are the characteristics that states should be looking for in applicants? While higher ability is an important attribute for performance on the job (see, e.g., Ashraf et al. 2019), the wide range of functions that the state provides is likely to make certain competencies stand out for specific roles. Another likely important attribute that impacts performance on the job is intrinsic motivation. Conditional on ability, some agents could value a career in public service more, which can translate to either a lower unit cost of effort on the job or a higher utility from performance on the job, both of which increase outcomes. While ability and intrinsic motivation are both sensible characteristics that screening mechanisms for bureaucrats should be looking for, there is still limited evidence on the relative importance of each in explaining bureaucratic performance, particularly across government functions. Progress in this literature could come from working with civil servant colleges which both select civil servants and train them.

Once civil servants have been hired, there is now some evidence on how to monitor and incentivise their work effectively (see, e.g., Khan et al.

2015, 2019, Ashraf et al. 2014, Bertrand et al. 2019, Muralidharan and Sundararaman 2011, and Duflo et al. 2015). One salient set of design considerations concerns which job components to tie incentives to: i) inputs, such as worker attendance; ii) outputs, like the quantity of services delivered; or iii) ultimate outcomes of interest. Optimal choices depend on numerous factors, including i) how feasible it is to measure a given component accurately, ii) what the return to additional effort is in moving the needle on the component, and iii) which location of incentives is more likely to generate unintended negative effects originating from concerns about multi-tasking or worker manipulation. When performance can only be imperfectly measured, career incentives can play a significant role in motivating bureaucrats. The analysis in Bertrand et al. (2019) underscores the importance of career incentives tied to job promotions as a critical determinant of performance in the India Administrative Service, which employs quite sophisticated performance measures such as "360 evaluations".

There is very little evidence about how to effectively select, monitor, and incentivise managers at higher bureaucratic levels. These workers wield considerable power and influence, and their effort is a key determinant of an agency's overall performance. Their work is more difficult to measure, and many public pay schemes are more rigid regarding how their compensation can vary. The firms' literature has showed that CEO characteristics and their use of management practices play an important role in explaining firm performance. Similar work for state bureaucracies is needed.

Many organisational challenges within the state prevent desirable policies from delivering a significant impact. In particular, given the numerous decisions and contingencies that typically arise after setting up the policy agenda at a higher level in government, the governance structure of these organisations is likely to play a significant role on whether these objectives are met.

We conclude this section with an important note. The bulk of the literature on the performance of bureaucracies concentrates on health, education, and taxation. We believe there is a need to shift attention to other functions in government, including ministries or agencies whose mission more directly relates to growth. For example, optimal selection and incentive schemes for bureaucrats in the ministry of commerce, central bank, industrial zone management committees, investment, and export promotion agencies could be very different from those for teachers and nurses. Moving forward with this research agenda presents two important challenges. The first is measuring performance on the job. For example, how pivotal an investment promotion agency is in bringing foreign investment in a country is very difficult to assess, and even if this could be overcome, attributing this to the individual performance of agents in the organisation would present an even greater challenge. The second relates to the small number of agents in these organisations, which makes statistical inference difficult. As such, pushing the research frontier on this issue will likely still need to rely on the health, education, and tax sectors, but we believe it should be done in such a way that the results may be applicable to other agencies in government. In particular, teachers and nurses are typically public sector workers so career incentives or the set of screening devices needed to select the best workers can arguably be very different than the ones for civil servants.

ii. The challenges of policy implementation

The standard objective of research in development economics is to identify effective policies that governments in developing countries should implement to boost growth or improve the livelihoods of the poor. This is why a growing body of researchers now directly engage with policymakers on the design of new policies and regulations.

However, experience has shown that there can be a significant gap between a policy recommendation and its final impact on the economy. For example, one of the most important frameworks guiding economic policy in developing countries are national development plans. These lengthy documents generally result from strong collaboration with donors, development consultancies, distinguished economists from international organisations, or academics. As such, good ideas are not necessarily scarce when it comes to the design of policies in low-income countries; the problem is that development plans do not always deliver the expected outcomes. Finding new ideas for policies which in many cases must be tailored to the context of each country, and measuring the effectiveness of various policies should remain the central function of research in development economics. However, research should also consider how the challenges of policy implementation can be addressed.

There are two main reasons we support this view. The first relates to the importance of policy implementation in measuring the effectiveness of policies. In many cases, research focuses on assessing the impact of a policy in the law on a series of performance metrics. Thus, researchers would conclude that a good but poorly implemented policy is ineffective. For example, if a study measures the impact of cash transfers randomly allocated across districts on household-level outcomes, but it ignores the challenges raised by targeting and leakages, we would conclude that the policy delivers poor results.

The second rationale for economists to consider the challenges of implementation comes from Duflo (2017) in her lecture "The Economist as Plumber":

(...) As [policy] designs actually get implemented in the world, this gives [economists] the responsibility to focus on many details about which their models and theories do not give much guidance. (...) It turns out that policy makers rarely have the time or inclination to focus on [these details], and will tend to decide on how to address them based on hunches, without much regard for evidence. Figuring all of this out is therefore not something that economists can just leave to policy makers after delivering their report: if they are taking on the challenge to influence the real world, not only do they need to give general prescriptions, they must engage with the details.

The interaction between policy design and implementation capability is also an area of research that deserves more attention. Public capacity, political factors and social norms are fundamental constraints that should be considered when recommending specific policies. For example, Atkin et al. (2019) argues that industrial policy requires strong institutional capacity to be put into action. While some government interventions may be theoretically legitimate, if the challenges surfaced by their implementation risk creating bigger distortions elsewhere, they should not be considered. Furthermore, the feasibility of tax reforms, changes in subsidy schemes, or simply budget arbitrages should be considered first and foremost political.

Identifying externalities and market failures—or more broadly, the most stringent constraints to growth, designing policies in response, and implementing them are arguably not three distinct functions. In fact, most ministries in developing countries handle these three functions together. The Center for International Development at Harvard University has been at the forefront of developing a new methodology for solving the complex problems of economic development—Problem Driven Iterative Adaptation (Andrews et al. 2017). They support a bottom-up approach where, through iteration and adaptation, local solutions are found and implemented for context-specific problems. While the performance of this approach still needs to be assessed with quantitative studies, we support a research agenda that would shed light on how authority is allocated within government, the type of structures that are needed to identify problems, find solutions, and put them into action. While a very challenging question for research, recommendations on the organisational structure of the state and giving bureaucracies higher capabilities to design and implement policies with limited support could be one of the interventions with the most significant impact on economic development.

In summary, one of the biggest challenges for policymakers in low-income countries is not necessarily just what to do, but how to do it. We support taking a systems approach to bureaucracies to understand the constraints that complex policy implementation faces within the state (Pritchett 2015, Hawe 2015, Mansoor and Williams 2018).

Next steps and research priorities

- **How can the design of screening mechanisms for bureaucrats be improved?**
- **What are the most important skills and attributes that bureaucrats should be selected on?**
- **How can bureaucrats be better incentivised?**
- **How can bureaucrats at the top of the hierarchy be better selected, incentivised, and monitored?**
- **What type of management practices are more efficient in the public sector?**
- **How can the state build complex agencies that deliver its policy objectives on structural change?**
- **How can the main challenges to policy implementation in developing countries be overcome?**
- **How do the challenges of policy implementation influence policy design?**

C Spending effectiveness

The state provides key services for growth. In most instances, the execution of these services requires the government to disburse large amounts of funds. Building infrastructure, transfers for social welfare programmes, and paying teachers and government employees all involve public spending.

While determining where public funds should be spent is critical, making sure the money actually ends up going where planned is also a first-order issue. Spending waste is particularly prevalent in developing countries. The Inter-American Development Bank estimates that about 4.4 percent of GDP is lost from government spending misuse. Leakages are also common. Niehaus and Sukhtankar (2013), comparing official micro-records with original household surveys, estimate that the implementation of NREGS in Orissa led to a 75-percent leakage rate (see also Imbert and Papp 2018 for a similar estimate). In Indonesia, Olken (2006) documents that at least 18 percent of rice assistance never reached the targeted beneficiaries. On infrastructure, still in Indonesia, Olken (2007) estimates that 24 percent of resources dedicated to road building are lost due to corruption. In Brazil, Finan and Mazzocco (2017) argue that about 25 percent of public expenditures is misallocated due to politically motivated distortions.

The list of sources for public spending waste is long, but the framework of Bandiera et al. (2009) allows us to distinguish two main types of spending ineffectiveness. The first is active waste, which increases the utility of the civil servant or politician, and the second passive waste, which does not. Active waste generally refers to forms of corruption where the benefits for public decision makers are pecuniary. However, recent research finds that spending for political gain is also important in developing countries. Passive waste, on the other hand, refers to inefficient or ineffective spending systems.

Our central focus of research for this theme is passive waste. We believe this area of research is currently overlooked and strongly encourage research that comes up with solutions to build more efficient procurement and payment structures. However, passive waste cannot be studied in isolation, as it often affects or is impacted by active waste. For example, in response to fears of corruption, governments generally implement rules that guide the spending delegation of state bodies. In some instances, these can be particularly inefficient and generate passive waste.

Below we explore the different elements that are likely to affect the effectiveness of government spending and review the existing evidence on each. The first is targeting—i.e., making sure that the actual recipients of public services are the intended ones. We then discuss procurement systems and the use of public-private partnerships.

Targeting

In this section, we study the issues that arise when states deliver public goods that are targeted to a specific group in the population. While the set of policies focused on a subset of the citizens is large (e.g., taxation), we focus here primarily on the issues about targeting the poor. This is to reflect on the arguments made in Section 3 that the state needs to be at the centre of inclusive growth policies. However, many of the lessons from the literature on the targeting of social protection programmes apply for other policies. This literature has made considerable progress over the last two decades. We review the main papers on this issue and highlight potential areas for further research.

One of the common problems low-income countries face when delivering services targeted to the poor is the lack of information on each individual's income. In most high-income countries, this information comes from tax codes. But in developing countries, the prevalence of self-employment, informal employment, or tax codes that are assigned only above a certain income threshold imply that most of the time, the income of the poor isn't reported.

One potential solution for improving targeting is the proxy means test (PMT), whereby some information on household or individual characteristics is used in an algorithm to generate a measure of household income. But even this targeting method can be difficult to implement in a developing-country context. Hanna and Olken (2018) argue that PMTs make imperfect predictions, and so are likely to generate significant inclusion and exclusion errors. Camacho and Conover (2011) estimate that 16 percent of households cheated when reporting dwelling characteristics, demographics, and income in the census determining eligibility for a social programme in Colombia. By contrast, Banerjee et al. (2019) show that adding questions on durables owned by households in the census of households do not generate consumption distortions nor misreports by households.

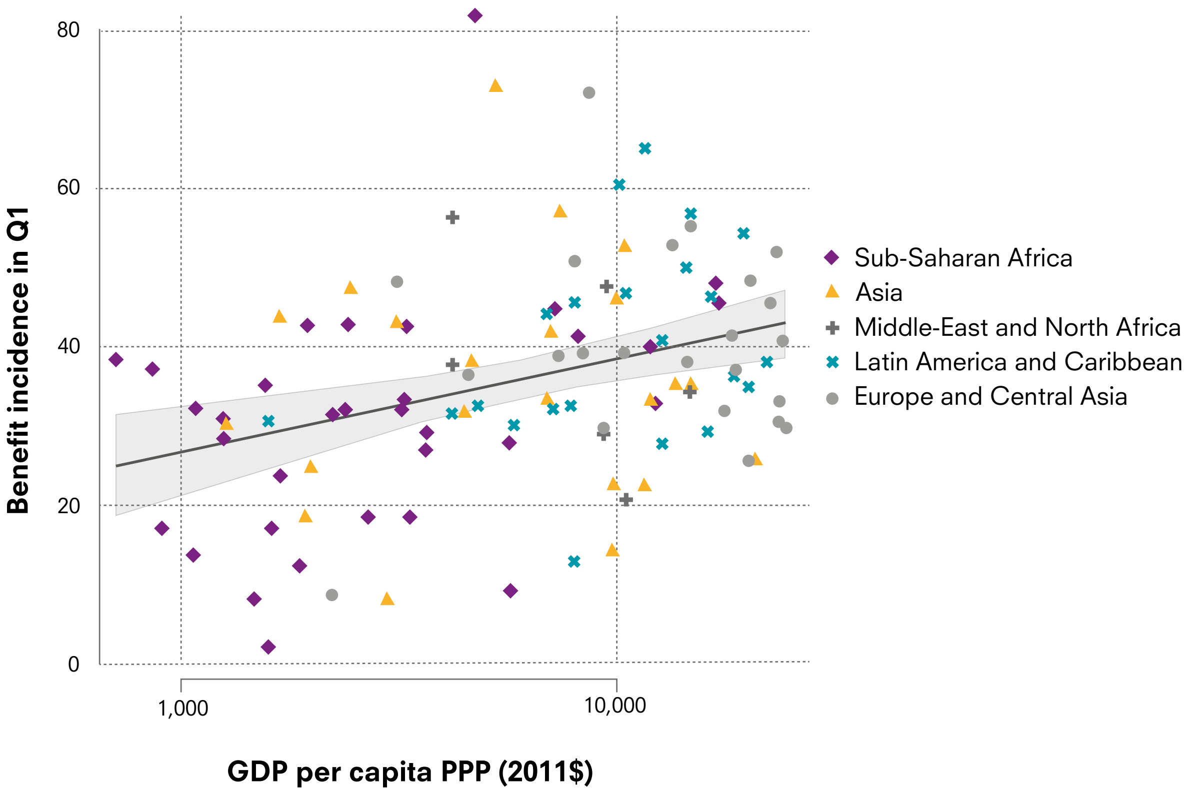
Another potential solution is to rely on the community to identify the poor. Alderman (2002) show that local communities have more information than could be collected through survey data. Alatas et al. (2012) provides evidence on the pros and cons of using PMT versus community-based targeting in Indonesia. The proxy-based approach identifies more of the poor, while community-based methods identify more of the extreme poor and result in a higher rate of satisfaction about the programme in villages. Basurto et al. (2019) test the benefits of decentralising targeting to local chiefs for an agricultural subsidy in Malawi. These traditional leaders target households with higher returns to farm inputs. As such, the allocation of the subsidy is more efficient than through PMT targeting. Overall, these two papers suggest that communities use a different definition of poverty that may be more appropriate than traditional income-based targeting. By contrast, Bardhan and Mookherjee (2000, 2005) argue that community-based targeting introduces potential for elite capture. Comparing community-based approaches to standard top-down monitoring systems in Indonesia, Olken (2007) argues that audits are more efficient in reducing missing expenditures.

Ordeal or self-selection mechanisms, in which potential recipients pay a cost that screens out the rich, could also improve targeting. In a randomised experiment in Indonesia, Alatas et al. (2016) compare the efficiency of a traditional automatic-enrolment asset-based targeting methodology with a model using the same method but where households had to actively apply to be recipients of the programme. Results show that non-eligible individuals self-select and do not apply, assuming that they are unlikely to pass the asset test.

Finally, simply providing more information to recipients about eligibility criteria could improve self-selection of households into specific programmes or otherwise help ensure that benefits are not distributed to ineligible households. Banerjee et al. (2018) evaluate the effect of sending cards to inform households about their eligibility and entitlement in the country-wide "Rice for the Poor" programme. While the intervention increased the quantity of rice received and reduced the co-pay price through an improved bargaining position, it did not lead to significant changes for ineligible households. As such, information provision mostly reduced programme leakages, rather than improved targeting.

In light of this growing body of evidence on the effectiveness of different targeting mechanisms, the question remains: Is there a need to do more research on these issues? The graph below illustrates that targeting remains particularly inefficient in low-income countries. It plots the percentage of total benefits going to the first quintile of the income distribution relative to the total benefits going to the population. In sub-Saharan Africa in particular, some countries distribute less than 20 percent of all benefits to the bottom 20 percent. If these benefits from social protection were distributed randomly across the whole population, the state would do a better job at targeting the poor than in the current setting. Bandiera and Parekh (forthcoming) further explore the challenges of targeting for social protection programmes in developing countries.

FIGURE 5 **Benefit incidence on first quintile of income distribution (ASPIRE data)**



The vast majority of the evidence described above comes from randomised controlled trials, where interventions are not implemented at scale. One of the challenges that could limit the use of better targeting methods in low-income countries, then, could be the lack of state capacity to implement them at scale. This may particularly apply in the case of community-driven targeting, and we encourage further research in this area. More broadly, understanding how to design efficient targeting in an environment with low state capacity deserves particular attention.

The effectiveness of other widely used targeting methods need to be studied. Price-based subsidies, where the change in price depends on whether the goods are relatively more consumed by the poor, could be an alternative option to standard targeting. However, there is limited evidence comparing these types of programmes to cash transfers with traditional targeting methods.

Given the challenges raised by targeting in developing countries, removing it completely and implementing Universal Basic Income (UBI) could be another option. Hanna and Olken (2018) develop a conceptual framework for comparing UBI with targeted programmes. In a recent paper, Banerjee et al. (2019) explore the existing evidence on the potential impact of UBI on households and economic growth. By definition, the General Equilibrium effect of UBI is likely to be very important and should be a central question in the development of new research on the issue.

Finally, recent developments in technology and their diffusion across low-income countries are changing the constraints that states face, and the opportunities available, when targeting the poor. These include national ID systems or biometric card systems (Muralidharan et al. 2014). This type of solution could, in addition to reducing leakages, significantly reduce the costs of inclusion errors—by, for example, cross-checking eligibility information from multiple data sources.

Measuring the efficacy of various targeting methods creates an additional challenge for researchers. They have to come up with a way of measuring poverty or determining eligibility for a programme that performs better than the targeting method used by the programme itself. In most instances, this is done through surveys where enumerators make it clear to the respondents that the information reported will have no influence on their eligibility for programmes. This raises the issue of how much participants trust the survey team, which in turn could create biases in the assessment made by researchers. As such, developing revealing or incentivising mechanisms in surveys would allow progress in this area of research.

Procurement and PPPs

Procurement, rules, and organisations

While a significant portion of state-provided services require direct disbursement to beneficiaries, many public goods are provided through procurement systems. To reduce opportunities for corruption, states generally implement rules that civil servants and politicians have to comply with to procure goods or services. However, incentives to improve spending along one easy-to-track metric may generate inefficiencies elsewhere. For example, if procurement agents always have to contract with the cheapest provider, they may compromise infrastructure quality.

Various forms of organisational arrangements or rules can deliver different levels of performance. Using data from independent assessments of project completion and quality in Nigeria and surveys on management practices from the institutions that implemented these projects, Rasul and Rogger (2018) show that the implementation of practices related to incentives and monitoring reduces project performance. They interpret these findings as evidence for bureaucrats having to multi-task and organisational incentives being typically poorly targeted. Reflecting on this, Rasul et al. (2019) find that discretion significantly increases project delivery in Ghana. Bandiera et al. (2019) show that increasing the autonomy of procurement officers with respect to auditors reduces the prices of the goods sourced by 9 percent. By contrast, while financial incentives may induce better sourcing decisions, in practice procurement agents are often limited in the scope of their actions—even those that may reduce prices—by their supervisors. Taken together, these findings suggest that autonomy in procurement may be an important way to improve spending efficiency. However, striking the right balance between reducing opportunities for corruption while leveraging procurement agents' private information is likely to depend on the context and intrinsic motivation of civil servants.

However, government-wide standards alone may not be the only source of explanation for the poor performance of public spending in developing countries. There may also be more idiosyncratic factors at play. Looking at expenditure data from the government of Ghana, Williams (2019) shows that there is significant variation in spending performance across ministries.

In procurement procedures, bureaucrats play a significant role in screening potential private suppliers. Thus, the outcome of this selection process and the efficiency of public funds depends on the skills of those individuals working in civil service. In Italy, Bandiera et al. (2008) show that there is large variation across public bodies in the amount spent for the same goods. Best et al. (2019) document that a large share of the quality-adjusted prices paid in public procurement can be attributed to individual bureaucrats. A natural question that arises from these findings is whether additional rules could be implemented to compensate for the low skills of procurement agents or if, instead, trainings are the best way to increase capacity in public procurement.

PPPs and private sector involvement

A central question in public finance is the desirability of handing over the provision of public services or goods to the private sector. In high-income countries, examples of such delegation can range from health and medical services to prison operations. In the developing world, public-private partnerships (PPPs) usually concern building infrastructure. (There are exceptions; see, e.g., Cristia et al. 2015 and Busso and Galiani 2019). PPPs usually differ from standard public procurement in that the private partner typically bears more risk, as it holds the responsibility of managing and maintaining the built facilities over a defined period of time. During the operation of the project, the private party receives a flow of revenue either from user fees or from the government. Engel et al. (2014) establish a useful conceptual framework for PPPs. These partnerships are often subject to ideological views, qualified either as the perfect solution to deliver high-quality services in an environment with low public finance capacity or as granting rent-seeking opportunities to large corporations. There is a critical need to move beyond these considerations and take a more objective view of PPPs. An ideal research agenda around this issue should not take the form of a succession of case studies seeking to understand what worked or not in each context. Instead, research should inform on the type of factors that affect the trade-offs in decision making and how to design efficient incentives structures in PPP contracts.

Payment systems

One frequent constraint on effective programme implementation is the lack of secure payment infrastructure to bypass opportunities for corruption and directly monitor transfers made to beneficiaries. This issue is at the frontier of passive and active waste. Specifically, funds dedicated to poverty alleviation are often simply seized by government officials along the way. Technology could potentially reduce the need for a large bureaucratic payment flow. Muralidharan (2016) study the introduction of biometric smart cards in Andhra Pradesh for the implementation of NREGA. On top of a much lower leakage rate than in other Indian states for the same programme, this payment system also generated significant time savings for beneficiaries; as such, the benefits of the investment were well worth its cost. Banerjee et al. (2019) measure the impact of the introduction of a "just-in-time" payment system to local authorities using e-invoicing as opposed to advance payments. They document that such a system, which facilitates the auditing process, significantly reduced the number of fake workers who are normally on the NREGA payroll but do not exist. This evidence suggests that technology for payment transfers is a promising idea. However, it still needs to be tested in other forms of social protection programmes or for other government spending contexts.

The political economy of spending

Finally, the political economy of public spending could play a significant role in explaining its poor performance. Williams (2017) show that about one third of local infrastructure projects that are initiated in Ghana are never finished. A large fraction of these are the result of pressure from citizens to start new projects elsewhere. In other words, collective expenditure choices are dynamically inconsistent. This area of research, also at the frontier between active and passive waste, deserves more attention.

Next steps and research priorities

- **What are the most effective ways of targeting poverty reduction programmes? How can the poor be better identified? How can effective targeting methods be scaled?**

- **How can technology facilitate the identification of the appropriate beneficiaries?**

- **Should there be more autonomy in procurement systems? If so, what type of management structures give more autonomy while maintaining oversight and anti-corruption audits?**

- **What are the main trade-offs for the use of PPPs? In what context are they most appropriate?**

- **How does the process for choosing collective expenditures affect spending effectiveness?**

5 Conclusion

Two decades ago, the field of research in development economics went through a "credibility revolution" (see Bandiera et al. 2014), which consisted of the adoption of high standards in statistical inference methods. One essential component of that advancement is the use of randomised controlled trials to generate exogenous variation that allows the identification of causal relationships. The recent award of the Nobel Prize to Abhijit Banerjee, Esther Duflo, Michael Kremer "for their experimental approach to alleviating global poverty" reflects the importance of this breakthrough. In parallel, the use of technology in government administrations of low-income countries, and the growing availability of data that comes with it, have allowed researchers to use advanced empirical techniques to work on topics that have thus far not been explored, or explored only descriptively or in an abstract way.

The past decade witnessed a co-generation innovation. Researchers have increasingly collaborated with ministries and governments in developing countries to understand not only the key determinants of poverty, state fragility, and state effectiveness, but also to determine the policies or solutions that could lead to significant improvements on these issues. The field of taxation in developing countries illustrates that point. The number of collaborations between academics and tax administrations around the world has boomed over the past several years (Pomeranz and Vila-Belda 2019). In turn, this has led us to more clearly understand the challenges of increasing tax compliance and designing more efficient tax policies for developing countries. These cooperation channels not only allow academics to generate more research; they also offer the opportunity for researchers to significantly shape policy outcomes. In a recent paper, Hjort et al. (2019) show that local policymakers not only exhibit significant demand for research-based information, but also that they respond to the research findings and use them in future decision making.

Researchers now have the tools and the relationships to deliver meaningful and relevant evidence to influence policy in developing countries.

Researchers now have the tools and the relationships to deliver meaningful and relevant evidence to influence policy in developing countries. The critical question, then, remains: What are the most burning issues that researchers should focus on? In this paper, we have highlighted three topics related to state effectiveness and economic governance that we believe are essential to delivering higher rates of inclusive growth in low-income countries. The first is the need to address fragility and create a functioning and effective state—one that can deliver on designing and implementing a wide range of economic development policies. The second is the need for the state to be more directly involved in poverty reduction programmes, particularly those that break poverty traps and, as such, increase productivity and economic growth. The third is the need to improve the effectiveness of state policies and state capacity by gathering more resources, spending them more wisely, and implementing the most efficient policies possible.

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