International Growth Centre

EVIDENCE PAPER

STATE EFFECTIVENESS, GROWTH, AND DEVELOPMENT

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Contents

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Executive Summary

In a sizable number of developing countries, the public sector fails to provide many, if not most, critical public goods necessary for economic development. The presence of a well-functioning state is key to encouraging economic growth. Part of this concerns having a public sector that has the capacity to raise revenues and spend them effectively; and that policymakers are incentivized to act in favour of their citizen. This paper discusses recent developments in the literature on state effectiveness. Each section covers the relevant theory with a special focus on the current knowledge about the mechanisms highlighted, potential policy measures, gaps in current research and potential ways to fill these gaps.

The first main part of the paper addresses how to build state capabilities. This requires improving tax compliance and long-run fiscal capacity, thinking carefully not only about how taxpayers are monitored and incentivised to pay taxes. It also requires us to think about the optimal design and management of public sector organisations, including recruitment strategies and the targeting of particular traits. This involves having an effective bureaucratic apparatus that implements policies in an effective manner and without delays, taking decisions at the right level of centralisation and delegating decision-making processes to the right agents.

The second main theme is about politics and policy choice. To implement growth enhancing policies it is necessary to understand how different political institutions translate conflicting societal demands into a single implemented public policy. This requires knowing which policies expand state capabilities, and how to create the political willingness to implement growth-friendly policies, thinking about political accountability and how the conflict of interest between citizens and politicians and bureaucrats is resolved. Moreover, designing and implementing mechanisms for aggregating preferences of different groups in the formulation of policy is also critical, as well as understanding how to prevent conflict and how to rebuild after.

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1. Building State Capabilities

The public sector in developing countries is often constrained by weak fiscal capacity, sub-optimal revenue generation procedures and an inefficient public service provision system. It is the aim of this review to point out the primary contributions of the literature on state capabilities with a particular emphasis on understanding which policies are effective in improving the performance of the public sector and how future research can contribute to our understanding of public sector effectiveness in promoting economic development.

This section focuses on two broad literatures. The first is the literature on public finance and, in particular, on tax compliance. A lot of emphasis is given to the challenges of designing enforcement policies and tax systems in order to improve compliance in the presence of low fiscal capacity; and investigates the determinants of fiscal capacity in the short and long run. Second, we review the optimal design and management of public sector organisations. With imperfect policy implementation, obtaining an advanced understanding of how to recruit and manage effectively qualified public sector workers is crucial. We first discuss the policy instruments that have proven effective in attracting qualified and motivated agents to the public sector. Next, we discuss which management practices are effective in increasing the accountability and effectiveness of bureaucrats. Finally, the existing evidence suggests that the presence of intrinsic motivation to participate in the public sector is important to overcome moral-hazard, and can be used in conjunction with bureaucratic autonomy to improve public sector project output.

Public Finance

The aim of this section is to investigate the determinants of tax compliance in order to identify which political measures are suitable to increase revenue generation and welfare in a developing country where fiscal capacity is low. We focus, in particular, on the influence of enforcement and tax policies, the role of intrinsic and social motivations, and the long-run relationship between fiscal capacity and growth.

If income is unobservable by the government, there is a trade-off between saving taxes through under-reporting and punishment in case of detection. Tax evasion is expected to decrease in the detection probability and the penalty for evasion. Well-functioning enforcement policies may be based either on traditional deterrence (audit threats, penalties) or on the exploitation of derivative information created by the often conflicting incentives of different agents (workers, firms, banks, etc.). For third-party information reporting to be effective in reducing non-compliance, there are, however, requirements on the size and structure of firms that may not be met in many low-income countries.

Compliance is also influenced by tax policy. First, the sign and size of the tax rate effect on evasion is an empirical question. While it is intuitive that a higher marginal tax rate will increase evasion via the substitution effect, this is not necessarily true as a higher tax rate increases both the marginal benefit of underreporting (taxes saved) and the marginal cost of underreporting (penalties). Second, the use of more inefficient instruments in developing countries – i.e. border taxes, selective taxes on commodities and firms, turnover taxes, and seignorage – is sometimes a government's optimal response to the threat of economic activity moving from the formal to the informal sector. Moreover, in the choice between turnover taxes and profit taxes, there is a trade-off between production efficiency and revenue efficiency, provided that turnover taxes are harder to evade. The optimal choice of instrument then depends on the degree to which turnover taxes are able to reduce tax evasion.

Given the fundamental role of government revenues in supporting growth the research on the choice of tax instruments highlights the need, where fiscal capacity is limited, to focus on a broader understanding of the trade-offs between production efficiency and revenue-raising efficiency. In addition to the extrinsic incentives for tax compliance, there may also be a role for intrinsic motivations acting as a substitute for traditional deterrence. It is thus important to investigate which policies are effective in stimulating intrinsic motivation to comply with taxes, especially in settings with limited tax capacity. Moreover, complex tax laws and opaque enforcement practices (especially in developing countries) may render behaviour that would be optimal under full information infeasible. Given this potential perception bias, it might be optimal for the government to disguise its auditing practices in order to maintain a perception of large detection probabilities.

Another issue to consider is which factors shape fiscal capacity in the long-run and how the ability of a government to collect tax revenue changes along a country's development path.

Technological progress can be expected to increase compliance directly as it increases firm size, production complexity, and therefore the benefits from engaging in a formal economy. But, government has the ability to influence this process through investments in fiscal capacity. In an early stage, the introduction of a third-party reporting system has little effect due to collusion risks. This disappears as the size and complexity of firms increases, thus making investment in third-party reporting systems more attractive over the course of development.

Public Sector Organisation

This section discusses issues related to organisational design of the public sector in developing countries. We focus first on how recruitment strategies and the targeting of particular traits can enhance the effectiveness of civil servants. We then turn to how to motivate civil servants, including incentive provision, monitoring and the delegation of authority.

The effectiveness of the public sector depends substantially on the characteristics of the agents responsible for providing public services. The optimal design of recruitment and job offer procedures in the public sector has to answer the same question as in the private sector: what is the most cost-effective method to convince the best workers to join the organisation? It is valuable to investigate not only how public sector organisations can attract high ability workers, but also how those established procedures interact with the goal to attract pro-socially motivated agents in the absence of material incentives. A closer substitutability between workers in the public and the private sector should lead to similar compensation packages. However, if employees and the organisation are motivated by the same objective, intrinsic motivation can act as a substitute for financial compensation.

The literature emphasises the power of financial compensation and career incentives as an instrument to recruit high-skilled public sector workers who can provide services effectively. Not only does it appear to attract a higher quality applicant pool, it is also a suitable tool to compensate for undesirable job characteristics and has been found to have no crowd-out effects on pro-social motivation. The literature also suggests a number of other tools. First, meritocratic recruitment and screening measures are potential instruments to identify suitable candidates. Second, decentralisation and endogenous mission choices are expected to improve match quality and hence worker effort. Finally, making career progression dependent on merit is likely to result in higher quality applicants. Further research is needed to clarify the effectiveness of these different strategies.

We address the question of how on-the-job incentives should be designed to enhance agent's effort, to what extent the autonomy of bureaucrats contributes to effective public good provision and which devices are suitable instruments to monitor public employees. The provision of financial and non-financial incentives to bureaucrats is crucial to assure that projects are effectively completed. However, it is theoretically ambiguous to what extent financial incentives are suitable to even increase agent's effort. While bonus payments are expected to align the incentives of the principal with that of the agent, providing small financial incentives to altruistic workers might crowd-out their intrinsic motivation. For many public services, improving agents' performance also improves users' welfare (i.e. teacher absenteeism); while for other services, performance and users' satisfaction might be at odds with one another (i.e. incentives to tax collectors). In addition, while the evidence supports the effectiveness of financial incentives, these are expensive and sometimes unaffordable.

It is also interesting to investigate whether incentives should be provided to individuals or be based on group performance, when designing optimal reward schemes. As work constitutes a principal-agent relationship, effective monitoring devices are expected to be an important component. Moral hazard is expected to be smaller in mission driven organisations. In addition, there are a number of characteristics of public sector jobs that have the potential to render monitoring even less effective and potentially even counter-productive: i) public sector output is intrinsically difficult to measure; ii) bureaucrats typically work on multiple tasks simultaneously; iii) political turnover worsens the information asymmetry.

Public monitoring of bureaucrats is a potential solution to the aforementioned difficulties. Another important instrument to enhance worker's productiveness is the allocation of autonomy. Correct reporting is incentivised through the allocation of authority as this reduces the concern of the agent to be over-ruled by superiors. As such, allocating authority to agents appears to be a feasible option to overcome information asymmetries. However, some tasks might require strong directives to over-rule the agent's ex-ante preferences for job outcomes.

2. Politics and Policy Choice

The development of state capabilities is essential to guarantee that the state can implement the policies necessary for promoting economic growth and development. Improving state effectiveness in developing countries requires knowing which policies expand state capabilities, and how to create the political willingness to implement development-friendly policies.

To improve the political process that determines policy choice for growth and development one ultimately needs to understand how different political institutions translate conflicting societal demands into a single implemented public policy. Good political institutions need to solve the conflict of interest between bureaucrats and politicians on one side and citizens on the other by providing mechanisms for *political accountability*, guaranteeing that society's interests prevail over bureaucrats' and politicians' interests. But political institutions also need to solve another conflict of interest, i.e., provide mechanisms for *aggregation of preferences* that allow groups with different interests to effectively bargain over policy choice and ultimately reach a consensual decision over policies to be implemented.

Developing countries seem to perform significantly worse in executing both functions of political accountability and aggregation of preferences. Institutions would need to be particularly effective in simultaneously responding to the demands from different groups, as they generally face a more heterogeneous population, and therefore potentially more sources of conflicts of interest. Higher social heterogeneity, and weaker democratic systems, suggests that large groups within society may be excluded from the political process. The lack of inclusiveness of these institutional settings induces very high stakes in competition for power. When political institutions are not able to mediate this competition, violent conflict often results, leading to a complete breakdown of state capabilities.

It is therefore highly valuable to develop research that allows for a better understanding of how these political failures affect developing countries, and that provides further knowledge on which policies can play a role in dealing with these issues. In order to highlight potential paths for future research in these topics, this section discusses issues of political accountability, aggregation of society's preferences, and conflict in developing countries.

Political Accountability

The discussion around public finance models has typically assumed that policymakers want to do the right thing, but are hindered by inefficient institutions and corrupt bureaucrats. However, many politicians do not act in the best interest of the public they represent, which can result in poor provision of public goods and sluggish growth rates. Political accountability is frequently studied through the lens of principal-agent models. With imperfect information, outcomes are conditional on the policymaker's action, which can differ from what the citizens demand. Elections are the natural mechanism that aligns the incentives of politicians with those of voters, but the extent of real accountability is impaired by informational frictions. In cases of *unobservable actions* (or moral hazard) the institutional problem is to design an incentive scheme for the agent which rewards or punishes as a function of the observed outcomes. In cases of *unobservable types* (or adverse selection) citizens need to find ways to select the competent politicians whose motivations are in line with the public interest. Outcomes would be optimal depending on effectiveness of the accountability mechanisms in place.

The extent to which these informational frictions become binding constraints on growth and development depends on institutional quality. In particular, the effects of adverse selection and moral hazard in the political arena tend to be exacerbated in places where democracy and accountability mechanisms are weak. Four key elements contribute to this poor institutional performance: (i) limited information provision to voters and limited access to free media, (ii) low returns to holding office, (iii) low political competition, and (iv) a flawed electoral process.

The empirical literature on political accountability has been growing, as researchers have been increasingly able to overcome problems of endogeneity. But, research efforts are now more important than ever. An area is the role of information on accountability, and how social networks and organisation shape citizens' beliefs. Access to information by itself is not sufficient to improve accountability, and it is also an open question which is the medium that provides information more effectively. More evidence on the behaviour of mass-media is important to identify what limits the spread of politically-relevant information.

The second big area explores the value of holding office and the effect of term mandates and term limits on policymaking. Returns to being in office depend on politicians' preferences for financial returns, power, aspirations, and future career prospects. These would influence effort and how accountable they would be to their constituents. Term limits and term mandates act as external factors affecting the time horizon politicians face, and the policies they implement.

Third, the degree of political competition leads to different dynamics and results depending on the local political context, institutional systems, cultural elements, and economic fundamentals. Although, in general, political competition leads to better electoral outcomes and is welfare improving for citizens, in some cases competition could lead to welfare costs that are not compensated by the gains of competition. Fourth, there are other frictions that lead to failures in accountability. Populism, pandering, and clientelism are responses to perverse voters' incentives, and the proximate determinants have to be researched further.

Aggregation of Societal Preferences

A second role of political institutions is to resolve conflicts of interests between different groups in society. More precisely, when different groups want to implement different policies, effective political institutions should provide the instruments and the appropriate rules under which these groups can bargain, compromise, and settle for a unified choice. Doing so requires both that all groups in society are given the power to make their demands effectively and, relatedly, that groups trust the state institutions as a legitimate body to impose taxes, provide public goods and as a valid means of bargaining for policies.

This section starts from discussing why different groups in society may have diverging interests, and then analyses how groups come to trust and accept the state as a policy-maker who might, in the process of aggregation of preferences, approve policies that go against the interests of certain groups. Once we review the literature on the origins of conflicts of interests within society, we move to analyse the political consequences of several forms of conflicts of interests that commonly appear in developing countries, namely, (i) the politics of elite capture and clientelism, (ii) ethnic politics, (iii) politics of gender.

While the literature has recently advanced considerably on the evaluation of both the causes and consequences of conflicting preferences for public goods, there is still much to learn on the political economy effects of conflicting preferences in developing countries. First, while some studies discuss the impact of certain policies and institutional reforms over provision of public goods, and how this ameliorates problems of conflicting preferences, there is still much to be understood.

Second, while many of the questions here were raised on macroeconomic contexts, the need for causal identification implied that many of the answers were given using variation in local contexts. The heterogeneity of the relevance of these mechanisms at the local level suggests that a possible way of dealing with the political economy problems posed here may relate to the design of centralisation versus decentralisation of policy. More is needed to be done for a full understanding of this in socially and ethnically diverse settings.

Finally, many important margins of conflicts of interest in developing countries, with potentially important consequences for growth and development, are relatively unexplored. For instance, while many authors report that cities have higher influence over government decision-making than rural areas, there are relatively few quantitative studies exploring these claims. The growing urbanisation trend in most low income countries makes this gap all the more important to fill.

Conflict

When society cannot find peaceful mechanisms to resolve political disputes, it falls into civil conflict, which is catastrophic for growth and development. Unfortunately, the prevalence of this is surprisingly high, and the average civil conflict lasts for about 7 years. This mechanism for settling conflicting interests comes with large welfare loses. In the face of this, investigating why countries go into such costly wars as a mechanism to resolve political disputes is relevant not only to understand the political failures affecting developing countries, but also to formulate effective policy proposals to deal with them.

In this section we first discuss the more recent micro-econometric evidence on the economic costs of conflict. We then move on to the literature on why conflict and rebellions happen. We briefly discuss some theories of conflict, and show the recent evidence on them. Finally, we review the literature on how government policy can be used to reduce conflict, to help with post conflict reconstruction and avoid a fall back into conflict. We conclude this section discussing potential avenues for future policy-relevant research.

The research effort into understanding the causes and consequences of conflict faces three key challenges. First, researchers need to obtain reliable measures of the variables of interest. Second, the fact that individuals living in an area that experienced conflict in the past are not representative of the individuals who faced the conflict. Third, researchers need to credibly separate the impact of conflict over the variable of interest from the impact of third variables.

While all these challenges pose nontrivial difficulties, current research has advanced considerably in understanding the economic impacts of conflict, some of its causes and potential policy measures to reduce conflict.

We are still far from a full understanding of the causes and consequences of conflict. For example, a better understanding of the mechanisms of such history dependence leading to recovery or not from conflict seems to be not only policy relevant, but also related to bigger questions in development economics on why some places grow much richer than others. A second topic largely understudied has to do with rebel group formation, the boundaries of groups, and what leads certain groups to ally themselves or to fight themselves. This helps to understand how groups organise to go into conflict, as well as the origins of the monopoly of violence by the state. A third topic is the need to create more links between the theoretical literature on conflict and the empirical literature. A large theoretical literature in conflict is concerned with the question of why conflicting groups do not try to bargain and to compromise in order to avoid costly conflicts. For them not to bargain there must be a bargaining failure preventing effective peace deals.

Conclusion: The Credibility Revolution in State Effectiveness Research

In recent years, economics has experienced a "credibility revolution" calling for explicit and rigorous identification strategies in empirical research. State effectiveness has moved from a field of abstract theory and descriptive evidence to one where knowledge is cogenerated by researchers and policymakers and feeds directly into the policy process and evaluation design, as well as into academic journals.

On the methodology front randomised control trials have become an effective means to generate exogenous variation that allows the identification of causal relationships. This has represented a move away from cross-country comparisons with weaker causal interpretation. The key limitation of RCTs, however, is that they sacrifice generalizability to maintain control and precision. While much has been learnt from these small-scale experiments, research in state effectiveness would benefit from larger scale studies that deliver generalizable insight.

This notwithstanding, it is sometimes difficult to employ randomised control trials to estimate the effect of a treatment on the whole population. To overcome this, research in some areas has relied extensively on quasi-experimental variation created through policy variables. As large administrative datasets are becoming more accessible, it is possible to do more powerful and robust research results with greater external validity. In addition, research on state effectiveness in recent years has seen an increasing use of accessible and yet generalizable theoretical formulations to guide empirical analysis. This has allowed some authors to overcome the issue of observability of intrinsically unobservable quantities.

The literature on state effectiveness in recent years has engaged actively in the "credibility revolution", while also being able to bring findings into the policymaking process in developing countries. There is thus real promise that the new wave of state effectiveness research will deliver tangible benefits in identifying policy reforms that are conducive to economic growth as well as the institutional structures necessary to ensure that these policies are implemented.

1. Introduction

In a sizable number of developing countries, the public sector fails to provide many, if not most, critical public goods which are necessary for economic development to take place. This failure is important, since the presence of a well-functioning state is key to encouraging economic growth, and there is typically a feedback loop between growth and improvements in the institutional environment. Part of state effectiveness concerns having a public sector that has the capacity to raise revenues and spend them effectively. It also requires that policymakers are incentivised to act in favour of their citizens – to protect their property, enforce contracts and rule of law, and allow individuals to take advantage of economic opportunities. Politics and economics thus interact in a powerful way in determining state effectiveness. Improving state effectiveness requires not only that state capabilities be developed but also that incentives are in place to make sure that politicians and bureaucrats implement policies that benefit the majority of citizens.

Identifying the policy and institutional reforms that would enhance state effectiveness and encourage growth and development in a given country is a difficult task. There is an urgent need for new economic research in this area. The IGC State Effectiveness Programme focuses on filling this knowledge gap and, in particular, on identifying policy and institutional reforms that could be implemented to improve state effectiveness in developing countries. Boring down into the micro detail of reforms and focusing on whether or not they can be implemented and whether they produce desired outcomes characterises the approach of the programme. This approach requires not only the development and use of credible empirical methods for identifying the effects of reforms but also the pairing of economic theory with empirical methods to better understand the mechanisms underlying the effects we observe.

This "credibility revolution" in state effectiveness research, where explicit and rigorous identification strategies are paired with theoretical underpinnings, has increased demand for this type of research by governments in developing countries. This, in turn, has led to a greater willingness of governments to collaborate with researchers on key policy and institutional reform issues. Where possible, cogeneration of knowledge between researchers and government partners represents an ideal as this increases the probability that ideas from research are adopted and implemented at large scale. Embedding state effectiveness research projects in government departments and engaging government partners in the design of projects and in the dissemination of results is therefore also a hallmark of the IGC State Effectiveness Research Programme.

This paper identifies research avenues in state effectiveness that are central to growth and development. It is structured around two themes:

- *Building state capabilities:* The starting question is how to build a well-functioning state. To implement policies the state needs to have the capacity to tax and have the resources to support growth and development. In developing countries improving tax compliance and long-run fiscal capacity is essential to improving state capabilities. Improving tax compliance requires us to think about enforcement policies, the design of tax policy and the role of intrinsic motivations for paying taxes. Increasing long-run tax capacity requires a consideration of how improved tax collection interacts with political development in determining the capabilities of the state. Ensuring that resources raised are allocated in a manner that promotes growth and development requires having qualified bureaucrats and a set of rules that create incentives for bureaucrats to work and to respond well to society's interest. This requires us to think about the optimal design and management of public sector organisations. Thinking about recruitment strategies and the targeting of particular traits to enhance the effectiveness of civil servants is part of this agenda. Finding ways to motivate civil servants, including incentive provision, monitoring and the delegation of authority is also central.

- *Politics and policy choice:* The presence of well-functioning state machinery does not guarantee that the policies necessary to support growth and development will be chosen. How does politics affect the policy making process? How do societies resolve their inherent conflicts of interests? Does a failure to develop political institutions to resolve conflicts of interests constrain economic development? To improve the political process that determines policy choice one ultimately needs to understand how different political institutions translate conflicting societal demands into a single implemented public policy. Thinking about political accountability is critical to ensure that citizens' interests prevail over those of bureaucrats and politicians. Understanding the aggregation of interests that allow groups with different interests to effectively bargain over policy choice and ultimately reach a consensual decision over policies to be implemented is also important. Finally, thinking about how lack of reconciliation of divergent interests might lead to violent conflict, and what are the policies that countries might use to rebuild after conflict is another key strand of research.

The state needs to raise revenues in order to carry out the policy and institutional reforms, and provide the public goods, needed to support growth and development. In many developing countries, the tax base is too narrow, there is a large informal sector that is hard to monitor and tax, and widespread tax evasion limits the ability of the public sector to finance its activities. In these settings, improving tax compliance and enhancing long-run fiscal capacity are critical to improving state capabilities. Enhancing tax compliance requires thinking carefully not only about how taxpayers are monitored and incentivised to pay taxes but also about whether taxpayers perceive a value from paying taxes. Fundamentally, taxation represents a social contract, as tax compliance improves and fiscal capacity develops this may imply that citizens feel more invested in national development and more likely to support policy and institutional reforms that promote this objective.

An effective state needs to have the organisational capacities to undertake its activities. This involves having an effective bureaucratic apparatus that implements policies in an effective manner and without delays, taking decisions at the right level of centralisation and delegating decision-making processes to the right agents. Many states in developing countries do not achieve these standards: bureaucrats are often poorly incentivised and unaccountable to the populations they serve. This can severely limit how well policy is implemented. Thinking about how civil servants are recruited and motivated is thus central to improving state capabilities. We understand relatively little about what motivates bureaucrats to allocate public resources in an efficient manner. What we know is that where they are demotivated or where resources are siphoned off for private benefit then even the best designed policies are likely to have a negligible effect on economic growth. Thinking more about the design of incentives within public sector organisations thus represent a fertile are for future economic research.

Enhancing state capabilities along these dimensions is critical to ensuring that the state has the capacity to design and implement policy and institutional reforms. The development of this capacity does not, however, ensure that the government will implement growth enhancing policies (that benefit the many) rather than pursuing policies that benefit elites while repressing, expropriating or simply neglecting most citizens. The manner in which politics interacts with policy choices is critical here. If poor policies, which benefit the few and harm the many, are implemented, enhancing state capabilities will reinforce underdevelopment. Improving state effectiveness in developing countries requires not only the knowledge of which policies expand state capabilities, but also knowledge about how to create the political willingness to implement growth-friendly policies.

Thinking about political accountability and how the conflict of interest between citizens on the one side and politicians and bureaucrats on the other is resolved is thus critical to understanding state effectiveness. The role of access to information (e.g. via mass media), in determining whether politicians and bureaucrats are accountable to citizens is an important part of this research agenda. Another major area of research within political accountability explores the value of holding office and the effect of term mandates and term limits on policymaking. Increased political competition may also improve political accountability by ensuring that policies that are more representative of citizen preferences are implemented. Populism, pandering, and clientelism, which are common political strategies in developing countries, may lead to failures in accountability and there is an urgent need for more research on how political culture and citizens' expectations can be changed so that they demand policies which deliver real benefits to the majority of citizens.

Designing and implementing mechanisms for aggregating preferences of different groups in the formulation of policy is also critical to enhancing state effectiveness. This requires an understanding of how political preferences are formed and, in particular, how preference cleavages on dimensions such as ethnicity and gender appear and affect policy formulation. The challenge is one of delivering representative government in the face of these differing preferences. This then entails an analysis of what incentives politicians face to deliver policies which match the preferences of different groups. Providing political institutions that enable different groups to effectively bargain over policy choices and ultimately reach a consensual decision over policies is a key part of the challenge. Research on how to resolve conflicts of interest between groups via institutions which allow effective aggregation of preferences into economic policy is still at an early stage of development. There can be no doubt, however, that when such aggregation fails then this failure represents a significant impediment to the design and implementation of policies which encourage growth and development.

There are multiple instances where preferences between different groups cannot be resolved and civil conflict erupts. When this happens the effects on economic growth are profoundly negative and also long lasting. Understanding how to prevent conflict and how to rebuild after is therefore central to sustaining growth in developing countries. Part of this research agenda concerns understanding the economic effects of conflict on households, firms and on the political process. Another part deals with the proximate causes of civil conflict which remain poorly understood. Finally there is an array of question concerning how government policy can be used to prevent conflict and to rebuild after the occurrence of conflict.

This paper discusses recent developments in the literature and avenues for future policy-relevant research in how to build state capabilities and the relation between politics and policy choice. Although there is a connection between politics and state capabilities, some lines of research look at capabilities whilst suspending consideration of politics, whereas for others lines of research the focus is on politics. While these areas can be defined very broadly, this paper selectively covers topic that are relevant to growth and development, and in particular, to the design of institutional and policy reforms that might encourage these processes. Section 2 focuses on state capabilities. We begin with a discussion of public finance and then, move to public sector organisation where we focus, in particular, on bureaucratic incentives and effectiveness. Section 3 focuses on politics and policy choice. Here we start with political accountability, then move to aggregation of societal preferences and end with a discussion of conflict. Section 4 concludes with a methodological summary of the research methods employed.

2. Building State Capabilities

The public sector plays a crucial role in economic development, as an economic actor generating fiscal revenue and providing public services as well as in its role as a large scale employer. The public sector in developing countries is often constrained by weak fiscal capacity, sub-optimal revenue generation procedures and an inefficient public service provision system. While economic research has obtained a number of results that are able to explain the performance of the public sector in developing countries and that shed light on potential improvement mechanisms, knowledge gaps remain large and more remains to be done. It is the aim of this review to point out the primary contributions of the literature on state capabilities with a particular emphasis on understanding which policies are effective in improving the performance of the public sector and how future research can contribute to our understanding of public sector effectiveness in promoting economic development.

This section focuses on two broad literatures. The first is the literature on public finance and, in particular, on tax compliance. Particular emphasis is given to the challenges of designing enforcement policies and tax systems in order to improve compliance in the presence of low fiscal capacity. Furthermore, this review investigates the determinants of fiscal capacity in the short and long run, including the role of institutions, firms, economic growth, and social dynamics. It is found that while traditional deterrence measures such as audit threats appear to be effective in increasing compliance, the presence of third-party information reporting and information trails more generally have the potential to reduce tax evasion to the extent that traditional tax audits become almost unnecessary. The literature also suggests that the evolution of credible information trails is a by-product of development, which explains in part why tax compliance improves as countries grow richer. However, while there is a reasonably large body of compelling evidence on these questions, the existing literature focuses mostly on developed countries and is therefore at risk of failing to address the challenges that are specific to countries at an earlier stage of development. Future research in this area should thus seek to evaluate conceptually and empirically the effects of tax and enforcement policies in countries with limited tax capacity - including the effects on tax evasion, avoidance, and informality - while drawing implications for the optimal design of tax structure and tax enforcement.

Second, we review the optimal design and management of public sector organisations. As policy impact is often constrained by imperfect policy implementation, obtaining an advanced understanding of how to recruit and manage effectively qualified public sector workers is crucial. We first discuss the policy instruments that have proven effective in attracting qualified and motivated agents to the public sector. A particular emphasis is put on the interaction of such instruments with the amount of intrinsic public sector motivation in the applicant pool. The existing evidence suggests that material benefits such as wages and career incentives attract more qualified applicants without crowding-out applicants with pro-social preferences. Next, we discuss which management practices are effective in increasing the accountability and effectiveness of bureaucrats. Specifically, the merits of various incentive and monitoring schemes as well as the benefits of delegating authority to bureaucrats are discussed. It is found that while sufficiently large financial incentives are effective in attracting suitable candidates to the public sector and motivating them to complete their tasks successfully, non-financial incentives may be a viable and cost-effective alternative. We also show that strict monitoring practices have the potential to reduce public sector effectiveness, as in an environment where neither effort nor output is perfectly observable by the principal they are at risk of distracting attention from relevant tasks. Finally, the existing evidence suggests that the presence of intrinsic motivation to participate in the public sector is not only an important feature to overcome moral-hazard practices but can also be used in conjunction with bureaucratic autonomy to improve public sector project output. Further work, however, is needed to understand exactly how altering incentives for civil servants interact with particular characteristics of public sector work, such as the multi-dimensionality of tasks, the presence of multiple principals and the un-observability of effort and output.

The structure of this review is as follows. Section 2.1 discusses the short- and long-run determinants of tax compliance. Section 2.2 focuses on public sector organisations by first investigating the role of recruitment before analysing further on-the-job management practices.

2.1 Public Finance

The aim of this section is to investigate the determinants of tax compliance in order to identify which political measures are suitable to increase revenue generation and welfare in a developing country where fiscal capacity is low. We focus, in particular, on the influence of enforcement and tax policies, the role of intrinsic and social motivations, and the long-run relationship between fiscal capacity and growth.

2.1.1 ENFORCEMENT POLICIES

The natural starting point for a discussion of the effect of enforcement policies on tax compliance is the seminal work by Allingham and Sandmo (1972). Building on Becker (1968), they model the income earner's tax compliance decision as the outcome of expected utility maximisation. In particular, they consider a risk-averse agent whose income is subject to a flat income tax rate. As income is unobservable by the government, the agent decides what fraction of true income to report facing an exogenous audit (and therefore detection) probability. This creates a trade-off between saving taxes through under-reporting and punishment in case of detection. While simplified, the predictions of this model with respect to tax enforcement variables are very clear: tax evasion is expected to decrease in the detection probability and the penalty for evasion, because those variables unambiguously increase the expected loss from detection.

This prediction is consistent with a number of both non-experimental and experimental studies (in the lab and in the field), which show that deterrence has a positive effect on compliance.[2] For example, Kleven et al.(2011) present evidence from a large field

[2] See the surveys by, for example, Andreoni et al.(1998); Slemrod and Yitzhaki (2002); Slemrod and Weber (2011)

experiment in Denmark in which taxpayers were randomly selected for unannounced audits (to study the effect of audit experiences on future reporting) as well as pre-announced audits (to study the effect of audit probability on current reporting). They find that reported income significantly increases after both treatments but that particularly the experience of past audits led tax-payers to adjust their reported earnings upwards.[3]

While this evidence highlights the role of strict enforcement policies to ensure compliance, some have argued that the standard economic model of tax evasion over-emphasizes the importance of deterrence and extrinsic incentives[4] These arguments often start from the following "compliance puzzle": the basic Allingham-Sandmo model predicts low compliance under low audit probabilities or penalties, but in reality tax compliance is very high in modern tax systems despite extremely low audit rates and penalties. It has therefore been suggested that the standard model of extrinsic motivation must be augmented by intrinsic motivations such as morals, social norms, and psychology in order to accurately capture evasion behaviour. While we will return to the potentially important role of intrinsic motivation in a later section, we start by considering an alternative factor applicable to purely extrinsically motivated agents that may be able to close the gap between theory and evidence. Modern tax systems make widespread use of third-party information from firms and the financial sector (and information trails more generally). This creates a divergence between the observed audit rate and the actual detection probability conditional on evading, because systematic matching of information reports and tax returns will uncover any discrepancy between the two and thus creates very high detection probabilities (Sandmo 2005; Slemrod 2007; Kleven et al.2009, 2011). Hence, the notion that low audit rates reflect weak deterrence is an illusion: the infrequency of audits is an equilibrium outcome of the high compliance ensured by the strong deterrence effect of third-party reporting.

Kleven et al.(2011) explore these ideas conceptually and empirically. They extend the classical Allingham-Sandmo model to allow for both third-party reported and self-reported income, assuming that the detection probability is endogenous to the type of income being underreported. The model predicts that evasion will be small for third-party reported income and large for self-reported income. This is a within-person prediction: taxpayers with both sources of income are predicted to be large evaders on one source and full compliers on the other. The authors verify this prediction using Danish administrative tax audit data allowing them to distinguish precisely between underreporting of third-party reported income items and underreporting of self-reported income items. They find that the average evasion rate uncovered by audits is extremely small, but that there is strong heterogeneity depending on the information environment: tax evasion is very large for self-reported

[3] Related, Slemrod et al.(2001) analyse a randomised audit threat experiment in Minnesota.
[4] E.g. Andreoni et al.(1998)

income and close to zero for third-party reported income.[5] The high compliance on average therefore reflects that almost all income in Denmark is subject to a verifiable information trail which makes evasion very difficult. Furthermore, the authors compare the impact of information variables to the impact of social and cultural variables. Although some social variables are correlated with tax evasion, their impact is very small in comparison to variables that capture information trails.

Consistent with these findings, Kleven et al.(2011) find strongly heterogeneous effects of the aforementioned audit treatments depending on whether income is self-reported or third-party reported. They show that prior audits and audit threats have significant positive effects on purely self-reported income, but no effect on third-party reported income. In line with the predictions of their model, this finding highlights that there is a non-trivial role for traditional deterrence policies such as audits only when a substantial fraction of income is purely self-reported, as is indeed the case in developing countries.

Similar to the work on personal income taxation by Kleven et al.(2011), Pomeranz (2013) analyses a field experiment on firms in the value-added tax (VAT) system in Chile in which companies are randomly selected to receive audit threat letters. Her focus is on the potential information trail created by the conflicting incentives of sellers and buyers in a VAT chain: if buyers require receipts for the full value of their purchases in order to get a refund for input VAT, then this creates a third-party paper trail which increases the risk for the seller from underreporting sales in order to lower output VAT. Crucially, this effect breaks down at the last stage of the production chain, because final consumers cannot get a refund for VAT and thus have no incentive to demand or keep receipts. Pomeranz finds starkly different effects of audit threats on firm-to-consumer transactions than on firm-to-firm transactions. In particular, she finds that audit threats significantly increase compliance only for transactions with final consumers that are not covered by an information trail (purely self-reported income). Those results therefore also suggest that derivative information is very important in the context of value-added taxation of firms. This feature of the VAT is also highlighted by the conceptual arguments of Kopczuk and Slemrod (2006) and Keen (2008).

While these results suggest that the expansion of information trails should be of first-order importance to less-developed countries, two caveats deserve mentioning. First, a potential concern is a behavioural response not studied in the papers cited above: as information and deterrence is increased in some (but not all) sectors of the economy, this may lead to an efficiency-reducing substitution from enforced to unenforced sectors (Carillo et al.2013). For example, this includes shifting between wage earnings and self-employment income

[5] Even though the Danish tax system is very advanced compared to those found in developing countries, the within-country contrast between self-reporting and third-party reporting could be interpreted as the contrast between traditional and modern tax environments, and so the results potentially speak to the difference in compliance between high-income and low-income countries.

(Kleven and Waseem 2013). Such substitution responses are likely to be an important constraint in low-income countries as immediately improving deterrence throughout those economies is not administratively or politically feasible.

Second, the power of third-party information requires that this information is accurate and has not been manipulated as a result of collusion between the reporting agents (Yaniv 1992). This idea has been formalised by Kleven et al.(2009) who argue that firm size and firm complexity are key impediments to collusion between the employer and the employee. In particular, they consider a situation in which employees are informed of the firm's misreporting practices and have the ability to act as whistle-blowers. Kleven et al.(2009) show that this kind of detection threat can make evasion equilibria break down if firm size is large enough. The underlying mechanism supporting this theory is the notion that third-party reporting contains information which can be used to improve tax compliance as long as the incentives of the third party are conflicting or at least not aligned with the incentives of the taxpayer. Evidence in favour of the theory by Kleven et al.(2009) has been provided for example by Kumler et al.(2013). They focus on the underreporting of wages by firms in Mexico to avoid payroll taxes and find that this practice is much more pronounced in smaller firms. To investigate the effect of third-party information created by conflicting incentives between workers and firms, they consider a pension reform linking retirement benefit payments to reported wages. This policy increased workers' incentive to ensure that their wages were fully reported in order to be eligible for full retirement benefits while the tax evasion incentives of the firms were unaltered. They find that the tax reform significantly reduced evasion. This effect was especially pronounced for young people who have the strongest incentive to report their wages truthfully.

To conclude this section, well-functioning enforcement policies may be based either on traditional deterrence (audit threats, penalties) or on the exploitation of derivative information created by the often conflicting incentives of different agents (workers, firms, banks, etc.). For third-party information reporting to be effective in reducing non-compliance, there are, however, requirements on the size and structure of firms that may not be met in many low-income countries. This raises the key question of how to confront limited fiscal capacity in situations where the introduction of widespread and truthful third-party information reporting is not feasible. This question will be discussed further in the next sections.

2.1.2 TAX POLICY

Apart from direct enforcement policy, compliance is also influenced by tax policy. This raises two related research questions. First, what is the effect of tax rates and tax bases on the amount of tax evasion? Second, given significant noncompliance, what is the optimal tax policy and does it differ fundamentally from that in developed countries? In particular, does the presence of limited tax capacity justify the use of different policy instruments – policies that would be suboptimal absent tax capacity constraints – than those normally prescribed? This section assesses the findings of the literature with regards to those two aspects, first focusing on the effect of the tax rate on compliance for a given tax base (tax instrument) and then discussing the optimal choice of tax rates and instruments.

Regarding the effect of the marginal tax rate, the Allingham and Sandmo (1972) model and its various extensions (e.g. Yitzhaki 1974, 1987; Kleven et al.2011) show that the effect of the marginal tax rate is theoretically ambiguous both because of potentially offsetting income and substitution effects and because the substitution effect is itself ambiguous depending on the structure of penalties, taxes, and detection probabilities. While it is intuitive that a higher marginal tax rate will increase evasion via the substitution effect, this is not necessarily true because a higher tax rate increases both the marginal benefit of underreporting (taxes saved) and the marginal cost of underreporting (penalties typically depend on unpaid taxes, not underreported income). Given these theoretical ambiguities, the sign and size of the tax rate effect on evasion is an empirical question.

Early empirical studies include Clotfelter (1983) and Feinstein (1991), both of which considered the personal income tax and were based on audit data from the US. However, the absence of exogenous variation in tax rates in those early studies made the results very sensitive and difficult to interpret. More recent work has therefore taken a quasi-experimental approach to addressing this question. In particular, Kleven et al.(2011) employ a bunching methodology based on discontinuous jumps in the marginal tax rate around kink points in the income tax schedule to estimate the compensated elasticity of evasion with respect to the marginal tax rate.[6] Taking advantage of having both pre-audit and post-audit data, identification is achieved by comparing bunching in the pre-audit data (which contains both real and evasion responses) to bunching in post-audit data (which has been purged of the – detectable – evasion response). The difference between the two bunching estimates can be used to obtain the elasticity of (detectable) evasion with respect to the marginal tax rate. They find a significantly positive elasticity for self-reported income (with no effect for third-party reported income), suggesting that lower marginal tax rates are able to reduce evasion in the absence of third-party reporting. The effect of the marginal tax rate is small, however, compared to the effect of third-party reporting. Consistent with these findings, Fack and Landais (2013) exploit quasi-experimental variation in tax rates and third-party reporting applying to tax deductible charitable contributions in France to show that the evasion elasticity with respect to the marginal tax rate is significantly positive, and that the effect of third-party reporting on this elasticity is very strong.

Evidence on the responsiveness of agents' choice variables to tax rates in developing countries is relatively scarce. One exception is Kleven and Waseem (2013) who investigate the responsiveness of reported taxable income to the marginal tax rate using quasi-experimental variation from discontinuous jumps in the income tax liability (notches). They

[6] Saez (2010) shows that it is possible to estimate the elasticity of taxable income with respect to tax rates using excess mass in the taxable income distribution around kink point.

find sharp taxable income responses to tax rates, with responses being much larger for self-employed individuals (whose income is self-reported) than for wage earners (whose income is third-party reported) which is consistent with the results above. While many individuals therefore do respond to the tax code, they also show that a large amount of tax payers are unable to respond optimally as their pre-tax earnings are located in a strictly dominated region just above the notches. This kind of behaviour has to be explained by various forms of optimisation frictions such as inattention, misperception or real adjustment costs in labour supply. They estimate that such optimisation frictions are stronger for wage earners subject to third-party reporting than for self-employed individuals, consistent with the notion that the former group is forced to change taxable income by changing real labour supply and such responses are affected by strong adjustment costs in the short run. At the same time, optimisation frictions are significant even for self-employed individuals who have lots of evasion opportunities, suggesting that such responses are affected by informational frictions and "tax literacy" more generally. Overall, this work shows that informational frictions and tax literacy may be very important in settings with low human capital.[7]

Besides the effect of the marginal tax rate on compliance for a given tax instrument, it is crucial to investigate which tax instruments are most effective in improving compliance and what is the socially optimal choice of tax instruments. Gordon and Li (2009) investigate theoretically why developing countries tend to rely primarily on tax revenue from economically distortionary sources such as border taxes, selective taxes on commodities and firms, turnover taxes, and seignorage as opposed to more efficient broad-based taxes on personal income and value-added. They explain the use of these instruments as a government's optimal response to the threat of economic activity moving from the formal to the informal sector. In their model, firms face a trade-off between operating in the formal sector (allowing them to benefit from financial services) and in the cash-based informal sector (allowing them to avoid tax). When the value that firms receive from using the financial sector is relatively modest (as in low-income countries), the potential revenue leak from movements between the formal and the informal sector becomes very important. The optimal government policy therefore largely reflects a desire to discourage informality and tax evasion. The authors argue that the inefficient instruments listed above may be optimal in such settings precisely because they reduce informality and therefore increase the government's revenue generating capacity. The arguments by Gordon and Li (2009) are related in spirit to Emran and Stiglitz (2005), who show that movements from the formal to the informal sector can induce such significant inefficiency that imposing trade taxes instead of a VAT becomes the optimal policy choice when fiscal capacity is low. Empirically, a few studies have addressed the revenue implications of trade taxes versus domestic taxes based on macro cross-country comparisons (Baunsgaard and Keen 2010; Cage and Gadenne 2012).

[7] See also Best (2013).

Motivated by these questions, Best et al.(2013) provide micro evidence on the compliance effects of switching between production-efficient and production-inefficient tax instruments in settings with limited fiscal capacity. Their starting point is the canonical production efficiency theorem by Diamond and Mirrlees (1971), according to which production distortions cannot be part of an optimal tax system under full enforcement. This result permits taxes on consumption, wages and profits, but precludes taxes on intermediate inputs, turnover and trade. Best et al.(2013) show that these results break down when fiscal capacity is limited. Investigating the choice between turnover taxes and profit taxes, they show that there exists a trade-off between production efficiency and revenue efficiency, provided that turnover taxes are harder to evade (e.g. because output is a much broader base). From a pure revenue perspective the government prefers a turnover tax, whereas from a pure production perspective the government prefers a profit tax. The optimal choice of instrument then depends on the degree to which turnover taxes are able to reduce tax evasion. The authors analyse this question empirically using quasi-experimental evidence and administrative data from Pakistan. Their empirical approach exploits a production inefficient tax policy that is ubiquitous in developing countries, which is the imposition of minimum tax schemes. In such a scheme firms are taxed either on profits or on turnover (with a lower rate applying to turnover), depending on which tax liability is larger. Such minimum tax schemes give rise to kink points in firms' choice sets as the tax rate and tax base jump discontinuously at a threshold for the profit rate (profits as a share of turnover). Best et al.(2013) show that such non-standard kink points provide an ideal opportunity to elicit evasion responses to switches between turnover taxes and profit taxes.

Consistent with their model, they find that non-compliance is much larger under profit taxation than under turnover taxes, which could justify the use of turnover taxes despite the production inefficiency they introduce.

Given the fundamental role of government revenues in supporting growth, as discussed above, this recent research on the choice of tax instruments highlights the need, where fiscal capacity is limited, to move beyond the traditional, narrow focus on production efficiency in underpinning growth to a broader understanding of the trade-offs between production efficiency and revenue-raising efficiency.

2.1.3 INTRINSIC MOTIVATION AND PERCEPTION

In addition to the extrinsic incentives for tax compliance discussed above, there may also be a role for intrinsic motivations such as morals, social norms, guilt and shame (e.g. Cowell, 1990; Andreoni et al.1998). For example, Andreoni et al.(1998) argue that a moral obligation to pay taxes can be influenced either by a feeling of guilt about non-compliance, or as a result of fairness perceptions of the tax system and the government's use of the raised funds. Whilst these are intriguing questions, the empirical identification of intrinsic motives to comply with taxes is extremely challenging both because such motives are difficult to measure and because they may reflect deep-rooted preferences that are hard to vary experimentally. A number of studies have attempted to uncover intrinsic motivation by sending out letters of moral appeal, but those studies struggled to identify any effect perhaps because letter-based treatment are too weak compared to the deep-rootedness of such preferences.[8]

A paper that does identify purely intrinsic motives for tax compliance is Dwenger et al.(2013), who investigate a local church tax in Germany. In their setting, the true tax base is observed in administrative data (and so evasion can be precisely measured for each individual) and in the baseline the tax system is characterised by zero deterrence (as the audit probability is zero). Since the authors are able to show that taxpayers are in fact aware that the tax system is unenforced, this implies that observed compliance in the baseline must reflect a number of non-extrinsic reasons to pay taxes. They find that 23% of individuals pay the full amount of taxes due or overpay under zero deterrence, while the other 77% evade taxes, most of them fully. Intrinsic motivation is therefore substantial, although the majority does behave as rational, self-interested taxpayers consistent with the Becker-Allingham-Sandmo framework. Distinguishing between intrinsically motivated agents (defined as compliers or over-payers under zero deterrence) and extrinsically motivated agents (defined as evaders under zero deterrence), Dwenger et al.(2013) inject deterrence and recognition treatments into the system using a randomised field experiment and estimate the effects on each type of agent. They show that deterrence measures have strong effects on the evaders under zero deterrence, but small and insignificant effects on the intrinsically motivated. Furthermore, they show that recognition through social and monetary rewards for compliance has fundamentally different effects on the intrinsically motivated (who increase their payments) and the extrinsically motivated (who reduce their payments).

The previous results provide evidence that intrinsic motivation may act as a substitute for traditional deterrence. It is thus important to investigate which policies are effective in stimulating intrinsic motivation to comply with taxes, especially in settings with limited tax capacity. To address these questions, Chetty et al.(2013) conduct a randomised field experiment in Bangladesh. In order to investigate the extent to which social recognition and reward payments can improve tax compliance, firms are treated with a letter stating summary statistics of VAT remittances in a given area. In addition, a sub-treatment group receives a notice promising a financial reward to the top 10% of VAT remitting firms. The authors expect the treatment to be strong enough to change the moral perceptions in such a way that firms consider it the norm to remit taxes and therefore improve overall compliance.

An alternative reason why compliance may be larger than predicted by the standard economic model is misperception of detection probabilities and penalties (Andreoni et al.1998; Chetty et al.2009). In particular, complex tax laws and opaque enforcement

[8] See, for example, Blumenthal et al.(2001) and Fellner et al.(2013).

practices (especially in developing countries) may render behaviour that would be optimal under full information infeasible. While Dwenger et al.(2013) find little evidence of enforcement misperception in a specific tax setting in Germany, some survey studies have found that agents tend to significantly overestimate their detection probability and that their perceived measure of risk is essentially uncorrelated with objective detection probabilities.[9] Given this potential perception bias, it might be optimal for the government to disguise its auditing practices in order to maintain a perception of large detection probabilities.

2.1.4 LONG-RUN FISCAL CAPACITY

The previous section has highlighted the role of government policy for tax compliance when fiscal capacity is low. It is, however, also interesting to investigate which factors shape fiscal capacity in the long-run and how the ability of a government to collect tax revenue changes along a country's development path. This question is particularly interesting as two stylized facts link the level and structure of taxation to economic development. First, while statutory tax rates are roughly comparable in developed and developing countries, the former is much better able to extract revenue from their population (e.g. Gordon and Li 2009; Besley and Persson 2013). Second, the choice of tax instruments and tax bases changes over the course of development, typically starting with border taxes, presumptive taxes, land taxes, etc., which are subsequently replaced by income taxes with sophisticated withholding schemes and VAT (Kleven et al.2009; Besley and Persson 2013). Observing this cycle, Kleven et al.(2009) investigate the effect of economic development on a government's fiscal capacity and how this shapes optimal taxation. As discussed previously, they argue that firm size (and firm complexity) correlates negatively with non-compliance as it hinders collusion between the employer and the employee when creating third-party information. When embedding their micro model of third-party reporting into a growth model in which firm size grows exogenously with technological progress, the authors find that fiscal capacity evolves in three stages over the course of development. In the early stage, firms are small and third-party reporting is ineffective. As this hinders compliance, fiscal capacity is limited and the government can extract little revenue from its citizens. As development progresses, firm size increases which allows the implementation of positive third-party reported taxes which are still below the socially suboptimal level. As countries move to the final stage of economic development, firms start becoming sufficiently large and complex such that collusive misreporting cannot be sustained. Under such circumstances, the government is able to extract enough revenue in order to provide an optimal level of public services to its citizens. Notice that a similar argument can also be applied to the approach of Gordon and Li (2009) if it is assumed that the value of using financial services for firms increases over the course of development. In this case, at the early stages of economic growth, the cost for firms to participate in the informal, cash-based economy is negligible, thus deterring the state from imposing modern tax

[9] E.g. Scholz and Pinney (1993).

instruments. As the value of financial intermediation increases, firms become more willing to incur tax payments in order to benefit from the formal sector institutions.

While the previous discussion has shown how economic development changes fiscal capacity exogenously, Besley and Persson (2013) note that the ability of a state to enforce its tax system can also be viewed as an endogenous investment variable. In particular, they consider a model in which taxes can be avoided by moving economic activity to the informal sector. The authors assume that this movement entails a cost which increases in the amount of fiscal capacity investment by the government. Investment is costly for the government as it entails a resource cost and increases the citizen's disutility from taxation, but is beneficial if the utility from the additionally raised revenue exceeds the cost. These authors note that over the path of a country's development, workers are expected to become more productive, therefore increasing the revenue gains from fiscal capacity investment while leaving the costs unchanged. Complementary to the suggestions by Kleven et al.(2009), this approach therefore suggests that economic development does not only make it more costly for agents to shift activity to the informal sector but also makes it more lucrative for governments to augment this reduction in non-compliance by investing in fiscal capacity. In order to explain cross-sectional differences in compliance for a given level of development, Besley and Persson (2013) argue that political instability can deter governments from investing in fiscal capacity. In an unstable multi-party system, the ruling party is unlikely to benefit from future revenue flows, thus making investment less lucrative. Furthermore, cohesive institutions can hinder governments from channeling additional revenue to their own supporters, which again affects investment incentives.

The preceding discussion summarizes the relationship between economic development and fiscal capacity. On the one hand, technological progress can be expected to increase compliance directly as it increases firm size, production complexity, and therefore the benefits from engaging in a formal economy. On the other hand, government has the ability to influence this process through investments in fiscal capacity, for example by introducing third-party reporting and tax withholding schemes. The complementarity between the two approaches becomes clear when examining the merits of investing in fiscal capacity by, for example, creating systems for third-party reporting and tax withholding through the three stages of fiscal development defined by Kleven et al.(2009). In an early stage, the introduction of a third-party reporting system has little effect due to collusion between taxpayers and third parties which prevents a truthful implementation. This confounding effect disappears as the size and complexity of firms increases, thus making investment in third-party reporting systems more attractive over the course of development. The exact point of implementation will depend on the political factors identified by Besley and Persson (2013) and is likely to differ across countries.

2.2 Public Sector Organisation

The preceding section has highlighted the challenges in raising funds to supply the public services necessary to support economic growth and development. The organization and management of such services is equally challenging. This section discusses issues related to organisational design of the public sector in developing countries. We focus first on how recruitment strategies and the targeting of particular traits can enhance the effectiveness of civil servants. We then turn to how to motivate civil servants, including incentive provision, monitoring and the delegation of authority.[10]

2.2.1 RECRUITMENT STRATEGIES AND CIVIL SERVANTS' TRAITS

The effectiveness of the public sector depends substantially on the characteristics of the agents responsible for providing public services. The optimal design of recruitment and job offer procedures in the public sector has to answer the same question as in the private sector: what is the most cost-effective method to convince the best workers to join the organisation? Identifying "best" workers however is not straightforward. In particular, pro-social preferences or "public sector motivation" can align the interests of the agents with those of the organisation even in the absence of material incentives. It is hence valuable to investigate not only how public sector organisations can attract high ability workers, but also how those established procedures interact with the goal to attract pro-socially motivated agents.

(A) Competing with the Private Sector

The literature on private sector recruitment has established that wages are an important tool to attract high ability workers, so that competition between employers will make it optimal to offer a higher compensation to the employees that have been identified as qualified.[11] This theoretical relation hints to the notion that competition between public and private employers is important in determining optimal financial compensation packages (Besley and Ghatak 2005). The strength of this cross-sector wage dependency is determined by the similarity between the skill sets demanded in public and private organisations, so that a closer substitutability between workers in the public and the private sector should lead to similar compensation packages. This relation has been shown to exist especially in the health provision sector in high-income countries, where the introduction of private competition has led publicly owned health providers to increase their managerial compensation packages and introduce performance based remuneration systems.[12]

While the preceding discussion emphasized the role and the determinants of compensation when competing for high-ability workers with the private sector, employees might also be endowed with an intrinsic motivation to join a specific organisation. Individual

[10] For further reading, see also the literature review by Perry et al.(2010).
[11] E.g. Mincer (1974).
[12] E.g. Arnould et al.(2000); Ballou and Weisbrod (2003).

characteristics such as interest in a subject matter or an altruistic inclination to participate in public service provision might attract some agents more to the public sector than others. This notion is particularly relevant as the organisational goal of a public sector institution is a potentially multi-dimensional mission and not profit maximisation as in the private sector (Dixit, 2002).

Besley and Ghatak (2005) analyse the optimal recruitment and compensation procedures in such a case and point out potential benefits from matching the mission preferences of the organisation and the employees. In particular, they suggest that if employees and the organisation are motivated by the same objective, intrinsic motivation can act as a substitute for financial compensation, as the former will induce the employee to exert effort on the job without being directly rewarded for it by the employer. Handy and Katz (1998) show that intrinsic motivation is also suitable to overcome moral hazard in the work place as it induces agents to exert effort without being monitored. Finally, the exploitation of public sector motivation can also be understood as an argument against privatisation of government services. Francois (2000) suggests that some consumption goods should be supplied by the government using workers with public sector motivation as otherwise this additional productivity would remain unused. The idea that public sector motivation underpins effective service delivery has not only been analysed theoretically but has also found ample empirical support in the literature.[13]

Recruitment of skilled agents therefore does not only depend on a rigorous screening procedure but can also be improved by decentralising public sector organisation, because this is likely to diversify mission choices and therefore improve match quality (Besley and Ghatak, 2005). Arnould et al.(2000) show that mission driven organisations indeed operate on this margin by investigating the response of the managerial strategy of public health providers in the US to the entry of private competition. They find that public organisations respond to competition by changing their mission statements and the compensation structure of the employees. Additionally, Dal Bo et al.(2013) show empirically that a diversity of mission choices creates a monopsony situation in the labour market. If employees have preferences for particular missions they are more reluctant to accept a job offer which is less aligned with their objectives, so that the wage elasticity for a given employer turns out to be less than infinite. This makes clear that intrinsic motivation drives a competitive wedge between the public and the private sector, potentially allowing the recruitment of high-skilled bureaucrats without matching the wage offers of the competition.

(B) The Interaction of Material Incentives and Pro-Social Preferences

While, in principle, public sector recruiters are interested in attracting workers with both high ability and a significant public sector motivation, the appropriate instrument to achieve this is ex-ante unknown. As such, targeted recruitment of only high-ability workers could

[13] For a recent review of this literature see Petrovsky (2009), Perry et al.(2010).

lead to large public sector motivation within the employee pool if the two characteristics are positively correlated in the population (Dal Bo et al.2013). On the other hand, it might be that generous financial compensation deters motivated agents from applying. This aspect has been pointed out by Delfgaauw and Dur (2007) among others, who show that if the motivation of an agent is private knowledge, high wages can give rise to adverse selection in the labour market. This is because low wages act as a screening device, as they discourage unmotivated applicants from applying. Recruitment is hence more likely to result in a high level of intrinsic motivation in the employee pool. Similarly, lower wages mitigate the problem of on-the-job moral hazard, as they help in selecting more motivated agents which are more likely to exert effort also under imperfect monitoring (Handy and Katz, 1998).

Those theoretical considerations suggest that employers might face a trade-off between attracting high-skilled workers through competitive wages or other material incentives and finding applicants with high intrinsic motivation. The existing empirical evidence however casts doubts on the practical relevance of this trade-off. Dal Bo et al.(2013) analyse a field experiment which randomises wage offers during the recruitment process for community development workers in Mexico. Applicant ability and motivation is measured through various tests and past earnings. The authors find that higher wage offers attract higher quality applicants in terms of ability and motivation. Recognising that the quality of the applicant pool does not translate directly into the quality of the final hire, they also investigate the effect of higher wages on job-acceptance decision. The finding that higher wages also improve a public organisation's ability to fill vacancies with qualified agents is consistent with a cross-country comparison by Rauch and Evans (2000) who find that competitive salaries in the public sector are associated with an effective state bureaucracy. While a theoretically useful model, there is therefore very limited empirical support for the idea that higher wages deter highly motivated applicants from applying. In fact, the evidence from Dal Bo et al.(2013) seems to suggest the opposite, which is that more competitive financial compensation helps to crowd in public sector motivation.

Apart from financial incentives, compensation packages in public sector jobs also feature non-monetary extrinsic incentives such as job security and attractive job characteristics (Dixit, 2000), which allow public sector recruiters to attract high skilled applicants. Dal Bo et al.(2013) show that indeed employees are willing to sacrifice wage for more desirable non-monetary rewards and that high skilled applicants are attracted by such incentives. As such, competitive compensation is also effective when it occurs on a non-monetary basis.

Ashraf, Bandiera and Lee (2013) investigate the effect of career vs. social benefits on the skills, pro-social motivation, and performance of agents who self-select into public service. They collaborate with the Government of Zambia to experimentally vary the salience of career incentives vs. social benefits across districts when recruiting agents for newly created health worker jobs. They follow the entire first cohort from application to the field and measure impacts at every stage. They find that emphasising career incentives attracts higher skilled applicant without crowding out pro-social motivation, suggesting again that there appears to be no trade-off between those characteristics. They also find that the exposure to career-incentives significantly improves performance on the job which suggests large returns to successful recruitment.

Beyond compensation, a number of other aspects also influence optimal public sector recruitment decisions. First, public sector motivation in itself is a multi-dimensional concept and altruism might not necessarily be desirable for all public sector tasks. Prendergast (2007) points out that it is optimal to align the interest of the employee to that of the employer, even if the latter does not coincide with that of the general population. While a highly altruistic person might be well-suited to deliver public services, the task of extracting tax-payments from the population is contrary to her intrinsic motivation, which decreases effort. Clarifying this point, Dixit (2002) concludes that strong intrinsic motivation is desirable for tasks that require service provision while it is less suitable for resource extraction. Second, recruitment effort in the public sector needs to take into account the desirability of job-specific characteristics. Dal Bo et al.(2013) consider the effect of job-location on the quality of the applicant pool and find that jobs in regions that are less developed and have higher crime rates attract lower quality applicants. However, these authors also find that this effect disappears once applicants are promised financial compensation for undesirable job characteristics. Finally, recruitment is likely to be affected by employee's career prospects on the job. Public sector organisations differ from private profit-driven organisations due to the fact that decisions about career progression and task assignment are not necessarily made based on merit but might also take into account political considerations. For example, Iyer and Mani (2010) show that politicians in India use assignments to important tasks as a strategic tool to control career-concerned bureaucrats. If this practice is known, public sector jobs are at risk of attracting not necessarily skilled workers but rather applicants who are loyal to the politician.

One additional challenge faced by recruiters is that a worker's ability is ex-ante private knowledge, so that recruitment procedures have to be designed to screen for high-ability workers. Rauch and Evans (2000) investigate the merits of a "Weberian democracy" which focuses on meritocratic recruitment procedures instead of political appointments. In a cross-country regression they find that countries that adopt such policies are associated with a more effective state bureaucracy. Similarly, Iyer and Mani (2010) argue that political appointments in a bureaucracy discourage human capital investment and hence output quality. The evidence on the optimal screening procedures for bureaucrats is, however, scarce.

Concluding, the literature emphasises the power of financial compensation and career incentives as an instrument to recruit high-skilled public sector workers who can provide services effectively. Not only does it appear to attract a higher quality applicant pool, it is also a suitable tool to compensate for undesirable job characteristics and has been found to have no crowd-out effects on pro-social motivation. The literature also suggests a number of other tools of public sector organisation which may promise to enhance recruitment outcomes. First, meritocratic recruitment and screening measures are potential instruments to identify suitable candidates. Second, decentralisation and endogenous mission choices are expected to improve match quality and hence worker effort. Finally, making career progression dependent on merit and not political loyalty is likely to result in higher quality applicants. Further research is needed to clarify the effectiveness of these different strategies.

2.2.2 JOB ATTRIBUTES AND CIVIL SERVANTS' PERFORMANCE

This section investigates how work environments can be designed to enhance the performance of the public sector and its employees. In particular, we address the question of how on-the-job incentives should be designed to enhance agent's effort, to what extent the autonomy of bureaucrats contributes to effective public good provision and which devices are suitable instruments to monitor public employees.

(A) Incentive Design

As discussed in the previous section, the provision of financial and non-financial incentives to bureaucrats is crucial to assure that public sector projects are effectively completed. One aspect that sets the public sector apart from the private sector is the notion of it being a mission driven organisation. Following Besley and Ghatak (2005), this implies that if the intrinsic mission preferences of the organisation and the agent are well aligned, employees will require fewer incentives to exert the same amount of effort than they would in the public sector. In fact, it is theoretically ambiguous to what extent financial incentives are suitable to even increase agent's effort. On the one hand, bonus payments are expected to be effective as they align the incentives of the principal with that of the agent.[14] On the other hand, a number of scholars have argued that providing small financial incentives to altruistic workers might crowd-out their intrinsic motivation. This is expected to be particularly prevalent if the financial incentives are observed by the agent's peers, as then the exertion of effort will not be interpreted as altruistic behaviour ("warm-glow motives") but can rather be understood as a rational response to financial incentives (Andreoni, 1990).

The evidence on crowding-out in volunteer work[15] and donation behaviour[16] is markedly mixed and there is no direct evidence supporting this mechanism's importance for public sector workers. The existing evidence from field experiments on pro-social jobs suggests that sufficiently large financial incentives augment intrinsic motivation and are therefore an effective tool to stimulate worker effort. Ashraf et al.(2013) conduct a randomised control

[14] See, for example, Hashimoto (1979).
[15] E.g. Goette and Stutzer (2008).
[16] E.g. Ariely et al.(2009); Lacetera et al.(forthcoming).

trial in Zambia in which retail agents are promised rewards for promoting the sale of female condoms to their customers. The authors find that offering small financial incentives leaves sales unaffected, while large financial incentives marginally promote sales. This effect is amplified when looking only at the poorest agents in the sample, suggesting that the size of the financial incentive is an important determinant of its effectiveness. When measuring the extent of pro-social motivation using a dictator game, Ashraf et al.(2013) find that it is a good predictor for sales performance, supporting the aforementioned notion that motivated agents exert more effort for a given reward scheme. In addition, they find that financial incentives are significantly more effective in promoting sales when the agent is intrinsically motivated. In contrast with the crowd-out hypothesis, this suggests that financial incentives augment public service motivation.

This evidence is complemented by a rich literature studying incentive payments for teachers in developing countries. For example, Muralidharan and Sundararaman (2011) in a randomised experiment in India find that conditioning teachers' remuneration on test scores significantly improves student performance. Similarly, Miller et al.(2012) show that rewarding teachers for protecting their students from anemia improves both health outcomes and exam performance. However, Glewwe et al.(2012) note that incentive pay can lead teachers to exclusively focus their effort on factors enhancing their own reward while neglecting other important aspects of teaching. When conducting an experiment in Kenya in which teacher incentives were linked to students' exam performance, they find a positive effect on test scores and other indicators related to this but no effect on other margins such as teacher attendance or drop-out rates.

For many public services, improving agents' performance also improves users' welfare, e.g. reducing teacher absenteeism improves the quality of education and this directly improves the welfare of children and their families. For other services, performance and users' satisfaction might be at odds with one another. Khan et al.(2013) illustrate this tension by studying the effect of providing incentives to tax collectors in Pakistan. They find that high powered reward schemes increase the tax base and revenues, but also taxpayers' discontent.

While the evidence supports the effectiveness of financial incentives, these are expensive and sometimes unaffordable. Non-financial incentives can be a valid alternative. In the aforementioned experiment by Ashraf et al.(2013), one treatment gave non-financial rewards for condom sales. Agents were given a star for each condom sold, the star was stamped on a thermometer, thereby allowing agents to publicise their sale performance to their peers. This treatment was found to be the most effective in promoting sales overall and also significantly augmented the positive effect of intrinsic motivation. One caveat, however, does apply that might reduce the effectiveness of non-financial rewards that rely on social comparison for their effectiveness. In a different experiment, Ashraf et al.(2013b) provide community health workers with information about their relative exam performance during their training period. They find that the announcement of this treatment immediately reduces study effort among the weakest participants. This is explained by the idea that low-skilled workers have an incentive to disguise their ability level by exerting little effort. Social comparison can hence lead to a dispersion of the performance distribution, which is particularly undesirable in a health setting where malpractice can have severely negative effects on patients.

As most tasks in modern organisations need to be attempted as a team it is also interesting to investigate whether incentives should be provided to individuals or be based on group performance. Ex-ante, it is unclear whether group incentives are preferable. On the one hand, they can help to even out idiosyncratic shocks. On the other hand, they create within-group moral hazard issues as it becomes optimal to free-ride on other participants' effort.[17] Bandiera et al.(2012) investigate the effect of team-level incentives on group choice and individual performance for workers in a large private company in the UK. They find that endogenous group choice is largely able to mitigate the free-riding concern, as social ties act as commitment device to ensure active participation. However, the introduction of team-based incentives led to group formation based on ability instead of social ties, which increased moral hazard. Muralidharan and Sundararaman (2011) compare the effect on student test-score performance from providing teachers either with individual or group level financial incentives, where group level rewards are determined by the performance of the school. In a randomised experiment in India, they find that individual and group level incentives are equally effective in increasing student performance on the on-set of the programme. Individual level rewards are, however, significantly more effective after the first year post-implementation. Focusing exclusively on the long-run effects of the above incentive scheme, Muralidharan (2012) finds that students whose teachers were exposed to group level incentives for the entire duration of their primary schooling do not perform significantly better than students in the control group, whereas students in individual level incentive schools significantly increased their test score performance. The effectiveness of group based incentives particularly in the long-run therefore depends strongly on the context of their introduction. Further research is needed to understand how characteristics of the public sector affect team composition and the design of optimal reward schemes.

(B) Monitoring

As work in the public sector constitutes a principal-agent relationship in which the employee's exerted effort is imperfectly observable by the employer, effective monitoring devices are expected to be an important component of successful public sector organisation. Contrary to private organisations, moral hazard is expected to be a smaller concern in mission driven organisations, as agent's intrinsic motivation should lead them to exert effort independent of their principal's monitoring effort (Besley and Ghatak 2005). In

[17] E.g. Miller and Babiarz (2013).

addition, there are a number of characteristics of public sector jobs that have the potential to render monitoring even less effective and potentially even counter-productive.

First, in contrast to profit-driven private organisations, public sector output is intrinsically difficult to measure. Rasul and Rogger (2013) note that this can lead organisations to either rely on imperfect proxies for project success or subjective assessments. The authors note that especially the latter case might distort actual output as it incentivises agents to network with superiors in order to influence their subjective assessment. They verify this claim by investigating data on project completion from the Nigerian civil service in which they find that stronger monitoring is associated with a lower likelihood of successful project completion. This notion is supported further as monitoring has a less negative effect if computers are available, as they might facilitate objective measurement. Aghion and Tirole (1997) note further that subjective and incomplete output measurement might also induce selective reporting by the agent, thereby increasing the information asymmetry between the principal and his agent.

Second, the output in public sector organisations is not only difficult to observe but bureaucrats typically also work on multiple tasks at the same time. Rasul and Rogger (2013) note that multi-tasking can be particularly challenging to monitor if only the output of some projects is assessed, as agents then focus their effort on those while neglecting others. The data from Nigeria supports this idea by showing that monitoring has a more negative effect on project completion if it is more complex, because this requires multiple parallel efforts to be exerted. This notion is also consistent with the previously discussed evidence on teacher performance: Monitoring and incentive schemes lead teachers to increase effort on relevant margins while leaving other activities unaffected.[18] Kremer and Vermeersch (2005) find that if teachers are rewarded for assuring that their students obtain access to a school meal then such incentives can crowd out of teaching time. Jacob and Levitt (2003) even notice that such incomplete incentives can induce teachers to exert unproductive effort on cheating by manually manipulating student's exam performance. To circumvent such skewed incentives, Miller et al.(2012) suggest focusing incentive schemes on a one-dimensional observable output that represents well the general objective of the public service provider.

Finally, monitoring in public sector organisations is complicated by the fact that there is a multiplicity of principals who change regularly if they are subject to contesting elections. Political turnover worsens the information asymmetry between the principal and the agent, as the former typically does not only have private information but also significantly more experience on a given subject than the latter. Furthermore, division of power typically strips politicians of the ability to control agents directly by appointing or off-laying them. Iyer and Mani (2010) show that politicians therefore use strategic allocation of authority to agents in order to control them. In particular, the authors show that career-concerned agents in India

[18] E.g. Muralidharan (2011); Glewwe et al.(2012).

can be monitored by conditioning their assignment to attractive tasks based on bureaucratic loyalty. While this procedure is an effective method to reduce information asymmetries, it creates further inefficiency as it cannot be assured that the most loyal bureaucrats are also the most qualified or effective at completing a given task. The authors show that this practice, in particular, discourages the incentive to invest in human capital for lower skilled agents as it might be more lucrative for them to invest in relationship building with influential politicians.

Besley and Ghatak (2005) point out that public monitoring of bureaucrats is a potential solution to the aforementioned difficulties. Reinikka and Svensson (2011) present evidence from Uganda and show that public access to information on the use of public funds can indeed improve their allocation. In particular, they consider a natural experiment in which information on schooling grants was made publicly available in newspapers. The authors find that this practice improves enrolment and learning outcomes in schools, therefore suggesting a superior allocation of public funds. Similarly, Bjorkman and Svensson (2009) show that providing a platform to publicly discuss health services with their providers in Uganda improved the quantity and quality of treatment. As the authors claim that those improvements were achieved due to a change in treatment practices, this presents suggestive evidence that intrinsically motivated worker’s performance can be enhanced if their actions are publicly visible.

(C) Autonomy

Another important instrument that public sector organisations can consider employing in order to enhance their productiveness is the allocation of autonomy to their employees. Aghion and Tirole (1997) argue that allocation of formal authority to the agent increases her accountability and therefore her effort in completing a given task. In addition, correct reporting is incentivised through the allocation of authority as this reduces the concern of the agent to be over-ruled by superiors. As such, allocating authority to agents if the principal is not well informed appears to be a feasible option to overcome information asymmetries.

This notion is supported by Rasul and Rogger (2013) who show that public sector project completion rates in Nigeria are positively associated with bureaucrat autonomy. An explanation for this finding in line with Aghion and Tirole (1997) is that the combination of complex projects and information asymmetries significantly complicates the creation of working directives by principals, so that the allocation of power to intrinsically motivated and informed agents allows them to design and implement optimal project completion strategies. In addition, Miller and Babiarz (2013) note that autonomy of the bureaucrat is almost a necessary condition for individual level incentives to work effectively.

While the evidence seems to support the wide ranging implementation of public sector worker’s autonomy, Prendergast (2007) notes that some tasks might require strong directives to over-rule the agent's ex-ante preferences for job outcomes. For example, consider the case of a tax collection agent. If the agent was autonomous in her decision if and who to collect taxes from, it is unlikely that a tax system with universal compliance could be established although this is in the interest of the principal. Rasul and Rogger (2013) note that despite such misaligned incentives it might still be optimal to implement autonomy if multi-tasking agents need to be constrained by one particular set of management practices, as long as autonomy is optimal for a majority of tasks.

3. Politics and Policy Choice

The development of state capabilities is essential to guarantee that the state can implement the policies necessary for promoting economic growth and development. However, state capabilities are not enough to guarantee that the government will promote these good policies instead of pursuing policies that benefit small elites while repressing, expropriating or simply neglecting most citizens. If poor policies are implemented, state capabilities will reinforce underdevelopment. Improving state effectiveness in developing countries requires not only the knowledge of which policies expand state capabilities, but also knowledge about how to create the political willingness to implement development-friendly policies.

To improve the political process that determines policy choice for growth and development one ultimately needs to understand how different political institutions translate conflicting societal demands into a single implemented public policy. These conflicting interests can be classified in two broad classes: first, there is a conflict of interest between bureaucrats and politicians on one side and citizens on the other. Second, different groups of citizens typically want to implement different policies. Good political institutions need to solve the first conflict of interest by providing mechanisms for *political accountability*, guaranteeing that society's interests prevail over bureaucrats' and politicians' interests. But political institutions also need to solve the second conflict of interest, i.e., provide mechanisms for *aggregation of preferences* that allow groups with different interests to effectively bargain over policy choice and ultimately reach a consensual decision over policies to be implemented.

When compared to developed countries, developing countries seem to perform significantly worse in executing both functions of political accountability and aggregation of preferences. To illustrate this point, it is useful to look at some indicators of institutional quality produced by international organisations and think-tanks which are widely used in the literature. In particular, we present some measures of (i) lack of media freedom[19] (ii) transparency of governmental budget, (iii) democratic practices, (iv) perceptions of corruption, and (v) ethnic, religious and linguistic fractionalisation. We discuss how these measures differ across richer and poorer countries in figures 1 and 2. While we just plot

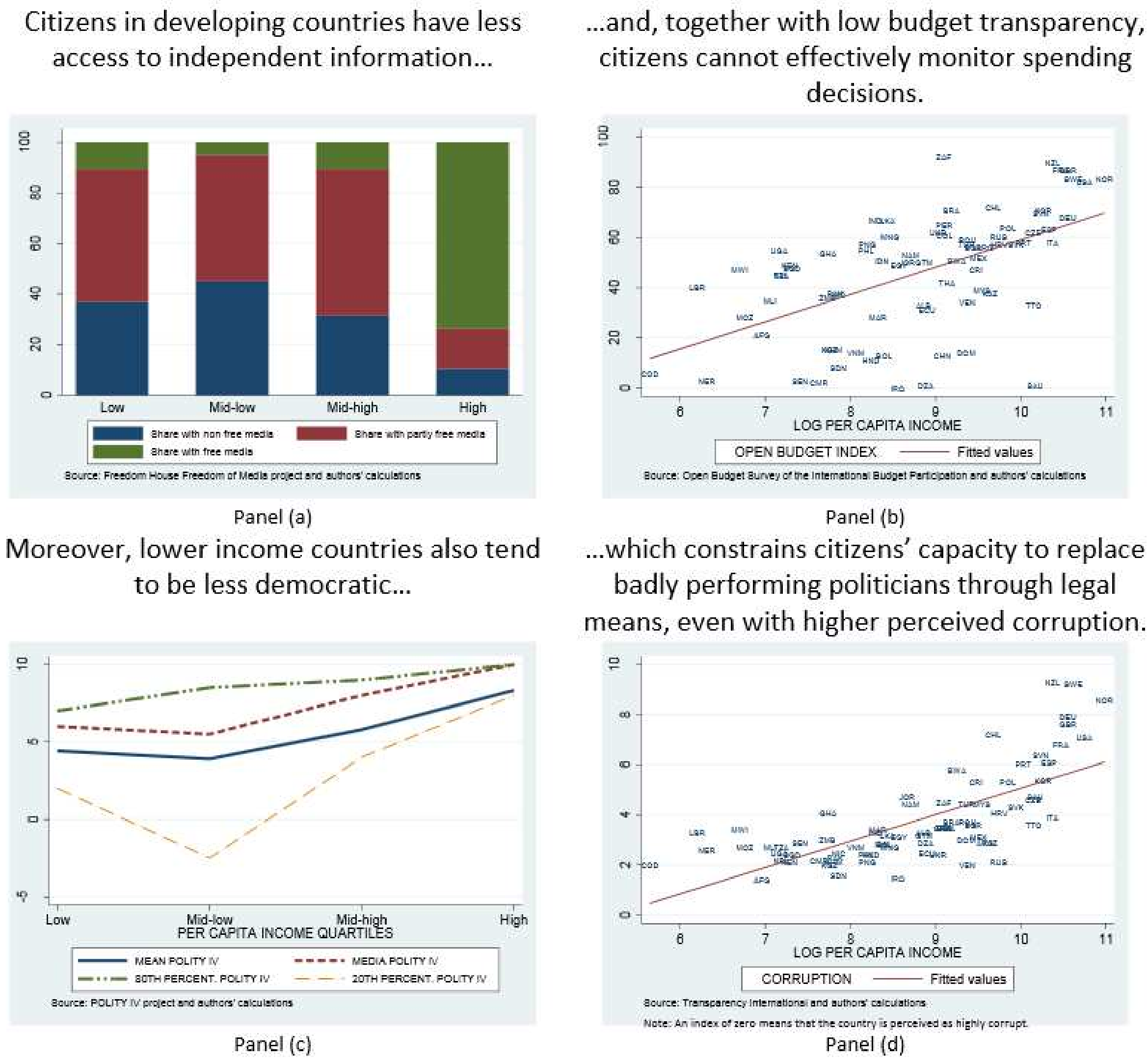
[19] This measure classifies a country as having "Free media." "Partially free media" or "Not free media".

scatter plots for most of the variables discussed, when clarity requires us to do so, we plot distributional measures by income quartiles. We further complement this description with some evidence shown by other authors.

Figure 1 describes how rich and poor countries differ in terms of freedom of media, transparency of government budget, democracy and perceptions of corruption. Overall, this data suggests that institutions in developing countries impose severe costs over citizens who might wish to hold the government accountable. As panel (a) shows, while media is not free or partly free for about 25% of countries in the highest income quartile, media is not free or partly free for almost 90% of the rest of the world. This suggests that citizens outside the developed world have considerably less access to information than citizens in developed countries. Panel (b) further confirms that citizens in poorer countries have less information about the government's budget. The "open budget" variable measures the degree of budget transparency in the country. Having low transparency in the public sector budget implies that citizens cannot effectively monitor revenues and spending decisions by the government, hence their ability to make bureaucrats and politicians accountable is greatly diminished. Lower income countries also tend to be less democratic, as shown in panel (c): while about 20% of countries in the lowest income quartile are as democratic or more than a country like Turkey, 80% of countries in the highest income quartile are as democratic or more than Turkey. Limited democracy constrains citizens' capacity to replace badly performing politicians through legal means. All of this suggests that in lower income countries citizens are less able to hold politicians accountable, which translates into higher perceived corruption, as evidenced in panel (d).

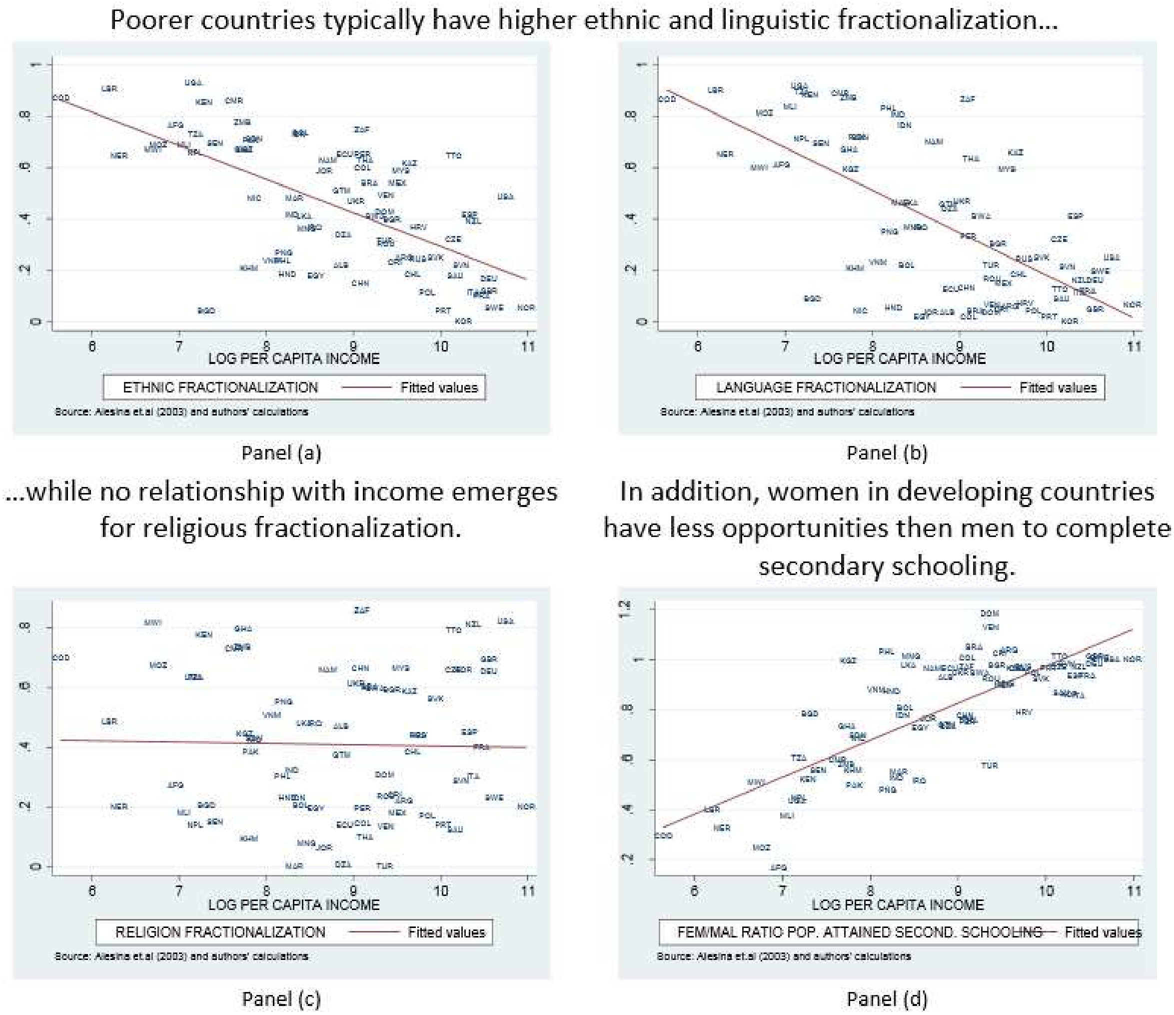
Institutions in developing countries would need to be particularly effective in simultaneously responding to the demands from different groups, as they generally face a more heterogeneous population compared to developed countries, and therefore potentially more sources of conflicts of interests. Figure 2 shows that poorer countries typically have higher ethnic and linguistic fractionalisation (panels (a) and (b)), while no relationship with income emerges for religious fractionalisation (panel (c)). The presence of widespread ethnic heterogeneity is often associated to a perceived difference of interests among these groups, and to the fact that citizens tends to associate themselves more strongly with their ethnic group than with their nation. Moreover, women in developing countries have less opportunities then men to complete secondary schooling (panel (d)), and while developed countries are relatively uniform in terms of labour market participation by women, many developing countries exclude women from labour markets.

Figure 1: Political Accountability: Media, Transparency and Perception of Corruption



Higher social heterogeneity, coupled with the fact that poorer countries tend to be less democratic, suggests that large groups within society may be excluded from the political process. The lack of inclusiveness of these institutional settings induces very high stakes in competition for power. When political institutions, be they democratic or not, are not able to mediate this competition, violent conflict often results, leading to a complete breakdown of state capabilities.

Figure 2: Aggregation of Preferences: Ethnic, Linguistic and Religious Fractionalisation



It is therefore highly valuable to develop research that allows for a better understanding of how these political failures affect developing countries, and that provides further knowledge on which policies can play a role in dealing with these issues. In order to highlight potential paths for future research in these topics, this section discusses issues of political accountability, aggregation of society's preferences, and conflict in developing countries. In each section, we cover the theory behind each of these issues with a special focus on the current knowledge about the mechanisms highlighted, potential policy measures, gaps in current research and potential ways to fill these gaps.

3.1 Political Accountability

The discussion around public finance models has typically assumed that policymakers want to do the right thing, but are hindered by inefficient institutions and corrupt bureaucrats. However, there is evidence that, due to lack of accountability, many politicians do not act in the best interest of the public they represent, which can result in poor provision of public goods and sluggish growth rates.

Political accountability is frequently studied through the lens of principal-agent models, in which the voters are the principal and the policymakers the agent. With imperfect information, outcomes are conditional on the policymaker's action, which can differ from what the citizens demand because citizens do not see in detail what the policymaker does. A policymaker is accountable when she can be replaced if people are not satisfied with her performance. For this reason, elections are the natural mechanism that aligns the incentives of politicians with those of voters. However, the extent of real accountability in elections is impaired by several informational frictions (Besley (2006)). Conceptually, the main principal-agent informational issues can be grouped in two categories:

- *Unobservable actions:* moral hazard induced by the fact that citizens do not see what the policymaker does. Citizens thus need to monitor and discipline the policymaker to prevent her from acting opportunistically. The institutional problem is to design an incentive scheme for the agent which rewards or punishes as a function of the observed outcomes. Typically, electoral rules are too coarse as an incentive mechanism and inefficiencies remain.

- *Unobservable types:* adverse selection induced by the fact that citizens do not see which type of policymaker is in power. Citizens thus need to find ways to select the competent politicians whose motivations are in line with the public interest. Voters are concerned with identifying the "type" of politician they would want to elect, while policymakers try to differentiate themselves from their opponents and reveal their pretended or real "type." Outcomes may or may not be optimal depending on whether the accountability mechanisms in place are effective in differentiating candidates. The use of elections as an accountability tool may lead to pandering, i.e. situations in which officials do what is "politically correct." even when that is known to be bad for the welfare of the population.

These informational frictions are inherent to human interactions and, as such, present in every society. The extent to which they become binding constraints on growth and development depends on institutional quality. In particular, the effects of adverse selection and moral hazard in the political arena tend to be exacerbated in places where democracy and accountability mechanisms are weak. Four key elements contribute to this poor institutional performance: (i) limited information provision to voters and limited access to free media, (ii) low returns to holding office, (iii) low political competition, and (iv) a flawed electoral process. We now turn to discussing each of these elements.

3.1.1 LIMITED INFORMATION PROVISION TO VOTERS AND ACCESS TO FREE MEDIA

As the literature on electoral accountability has been gaining momentum, several researchers have studied the link between the provision of information to the public and electoral accountability. Appointed officials act on the basis of privileged information, since they are better informed than voters about their skills, the policy advice they receive from different sources, as well as their motivations and actions. The less precise the information that citizens have on politicians' types, decisions and actions, the more room policymakers have for discretion.

For this reason, classic models of democratic accountability predict that informing voters of the quality of politicians and of their policies increases the probability that good incumbents retain their position, and that poorly performing appointees are ousted. This mechanism requires action from both sides: politicians must be aware that information on performance may threaten their survival in office, and the (informed) voters must be willing to punish politicians for bad performance.

The evidence on how voters respond to information provisions is mixed. Ferraz and Finan (2008) show that voters penalize corrupt politicians when information about corrupt practices is revealed, and Banerjee et al. (2011) find that citizens that (exogenously) receive more information have higher turnout, are less likely to sell their votes and are more sophisticated in the way they use the information. In contrast, Humphreys and Weinstein (2010) fail to find a link between increased information and accountability in Uganda. Chong, De la O, and Wantchekon (2013) find that information on fraud can actually lead to *less* voting if citizens become disappointed with the incumbent and the entire political system and, as a result, disengage. Perceptions of corruption and ideological bias can weaken citizens' confidence in public institutions and their ability and willingness to respond to their needs, hence eroding electoral accountability. In another context, Snyder and Stromberg (2008) also argue that voters' abstention may signal that citizens are dissatisfied with their political institutions.[20]

Information is particularly central for accountability in cases of resource-rich countries, because the stream of natural resource revenue is even more difficult to monitor. Caselli and Michaels (2012) exploit differences in oil windfalls across Brazil and find that the natural resource funds do not commensurate with the actual flow of goods and services to the population, calling this the "missing money". They classify the potential use of windfalls into: i) provision of public goods and services; ii) "unproductive self-preservation." or activities to increase politicians' chance of reelection; and iii) use of the money to personally enrich the politician. Their results suggest that most of the natural resource

[20] If people vote only to fulfill a civic duty, being informed about misconducts may lower the value of that civic duty, reducing then voter turnout.

windfalls are allocated to the latter two uses. Brollo et al. (2010) also study Brazil and conclude that larger transfers from the federal to local governments increase political corruption and reduce the quality of candidates for mayor. Gadenne (2013) finds that public sector performance is positively correlated with local taxes but not with transfers, as accountability mechanisms are weaker for the latter. However, as Monteiro and Ferraz (2009) indicate, once voters perceive that higher expenditure does not translate into more public goods and services, the incumbency advantage that follows oil booms dissipates and citizens hold leaders accountable by ousting incumbents out.

The natural providers of information to voters are mass-media outlets. Early work by Besley and Burgess (2002) and Stromberg (2004) suggests that politicians are indeed responsive to information provision and allocate more spending to better constituencies with higher media use. Using a panel of Indian states during 1958-1992, Besley and Burgess (2002) find that higher newspaper circulation leads to more public food distribution and calamity relief expenditure. Stromberg (2004) examines the allocation of unemployment relief across US counties in the 1930s – a period of rapid expansion of the radio – and finds that counties with a higher share of radio owners receive more funds.

However, whether politicians are responsive to additional media circulation depends on several factors. Beyond the degree of competition among local newspapers, congruence between the media market and the political district should be a key factor to consider within the regulation of the press. The overlap between electoral constituencies and the customer base of a particular media outlet is an especially strong determinant of the coverage of political news: reporting information on locally elected representatives is in fact only attractive for a profit seeking newspaper if enough readers care about that representative. In the context of the US, Snyder and Stromberg (2008) find that in markets with a larger overlap between the borders of the congressional districts and those of the "consumer base" of the local newspaper, political news on the performance on local politicians are significantly more likely to be reported. This in turn translates into increased federal spending in those districts and less partisan roll-call voting on behalf of congressmen who are aware that they are being monitored. In a developing context, the homogeneity of the languages locally spoken may also affect the coverage or reach of the news. Besley, Burgess and Prat (2002) conclude that the probability of media capture depends positively on the media industry concentration, transaction costs, and audience-related revenues.

Therefore, the availability of media outlets and the diffusion of information may not per se generate desirable consequences in terms of policy choice: it is also important to understand what news are covered by the media, what are the incentives of media owners to truthfully report the news, and how consumers react to the possibility that the information they receive may be biased.

Market incentives often induce media owners to report content that is biased in the direction of what their viewership or readership wants to see and hear (Gentzkow and

Shapiro (2008)). But market forces are not the only drivers of media slant. Sometimes the politicians themselves may put pressure on the media to induce under-reporting of news that is unfavourable to them. In the absence of overt censorship, this can be done through public advertising spending. Di Tella and Franceschelli (2009) use data on the four main newspapers in Argentina during 1998-2007 and find that newspapers that are more dependent on government advertising for their revenue report fewer corruption scandals in their front page. Ideological proximity between the government and the newspaper also influences the number of scandals reported, but the main effect persists when controlling for this.

In the presence of media slant, it is important to understand whether voters have the possibility to realize that the news they receive are biased and the means to react by switching to alternative (less biased) sources. A recent study on Italy (Durante and Knight (2012)), suggests that indeed consumers are sophisticated and switch TV channels in response to changes in the ideological content of the evening news. These findings, however, are hard to generalize to poorer countries where the availability of alternative information sources may be limited, hence voters may have fewer means of "undoing" what slanted media do.

Strategic framing of issues and positions also affects how voters react to information. Kendall, Nannicini and Trebbi (2013) find that messages on competence and effort are more effective in attracting voters to the incumbent, while messages on ideology of the candidate result in cross-learning as voters update their beliefs on both the incumbent and the opposition.

Another open question for developing countries is what medium is more suitable to providing information on politicians' performance. Television and radio have been shown to have significant effects on people's preferences and attitudes (e.g., Paluck 2009; Jensen and Oster 2009; La Ferrara et al. 2012), and they are particularly effective in contexts with low literacy and strong oral tradition. However, coverage of politics (especially local politics) is typically lower in TV and radio programs compared to newspapers, which may constitute a limitation if one were to rely on those as exclusive means of information. More work is needed to understand the behaviour of the media and the effect of active media coverage on political accountability in low income countries. Although growing, the empirical evidence on these topics is still scarce, partly because of the usual concern of endogeneity of media reporting and politics.

3.1.2 RETURNS TO HOLDING OFFICE: CAREER CONCERNS, TERM LIMITS, AND MANDATE LENGTH

The discussion on effective political accountability can be enriched by departing from the conventional assumption that the only interest of politicians is to get reelected. Politicians' desire to stay in office can be better seen as an intermediate objective to fulfill other goals such as financial returns, power, or the desire to implement certain policies. Some researchers have focused on the career concerns of politicians and the value they assign to being in office as part of an academic effort to disentangle the different determinants of political accountability.

More specifically, incumbents' time in office would depend on a set of observed and unobserved skills that voters take into account, regulations pertaining reelection, and the incumbents' own preferences for the length of their stay in office and the legislative accomplishments that they want to achieve during their tenure.[21] While wage is not the only element shaping the decision to run for office and the behaviour once in office, the salary received could be linked to better performance and accountability through both the selection and incentive mechanisms. Ferraz and Finan (2011) and Gagliarducci and Nannicini (2009) exploit differences in legislators' wage limits in Brazil and Italy, respectively. Both papers indicate that higher salaries improve politicians' behaviour in office, increasing the number of bills submitted by those legislators and approved. Those high-performing politicians also increase provision of some public goods, and make more efficient use of the money, in particular education and health.[22]

While salaries seem to influence policymaking, term limits and mandate lengths are also important determinants of the incentive trade-offs politicians face when deciding on policies. However, the effects of these incentives are not clear-cut. Shorter terms increase accountability as politicians implement less discretionary policies, exert more effort and probably extract lower rents. At the same time, shortening office terms too much may backfire because politicians get distracted on reelection efforts, and/or may need longer time horizons in order to invest in more productive projects.

Therefore, it is not completely obvious how and whether term length and limits matter and the literature yields mixed results. The outcomes could vary significantly in different institutional settings, and the external validity of the results should not be taken for granted. For example, using the political agency framework of Besley (2006), Ferraz and Finan (2009) conclude that first-term mayors are associated with significantly less corruption than second-term mayors with no possibility of reelection in municipalities of Brazil.[23] This suggests that term limits weaken accountability by creating lame-ducks with no incentives.

[21] Quantifying the returns to a career in the USA Congress, Diermeier, Keane and Merlo (2005) assess the relative importance of the utility politicians derive from being in office and the monetary returns to a career in Congress. The authors conclude that: i) congressional experience significantly increases subsequent wages, but at a negative marginal rate; ii) non-monetary rewards from their public career are large; iii) politicians' unobserved skills boost their career in government, but that does not necessarily generate better outside job-market opportunities; iv) the imposition of term limits substantially increases early voluntary exit, and significantly reduces the value of holding office.
[22] This may not be the case for other sectors, such as water and sewage.
[23] However, the gap in performance is smaller when there is more access to information that allows voters to uncover the politician's type.

Dal Bó and Rossi (2011) find that longer terms enhance legislative performance, based on a natural experiment in the Argentine House of Representatives. [24] Across all measures used, the authors find that appointees facing shorter terms show significantly lower levels of legislative performance. This is driven by higher effort on reelection, and by the fact that the time horizon affects the investment logic behind politicians' choice of involvement on different issues: longer terms make investments appear more worthwhile.[25] Another important element is whether experience in politics has an effect on policy outcomes. They find no evidence that longer terms have less of an effect on legislators with previous experience. Although time investment affects expertise, there is some depreciation of said expertise as issues change and new capitalisation becomes needed over time.

For voters, the value of the elected politician in office depends on the marginal level of public services they get in return for their vote. For politicians, the value depends on their preferences on financial benefits, power, the aspiration to implement certain policies, and the doors that being in office will open. As this value increases, politicians seem to be more accountable and to put more effort to boost their chances of reelection in line with principal-agent models. Part of this change could be the result of a more skilled pool of candidates (citizens with higher opportunity costs) attracted by higher returns to office. However, it is important to note that in principle more efficient politicians could be able to extract higher rents, as they are still able to provide more public goods than poor-performers. Since salaries, length of term and term limits all play an important role in streamlining the incentive trade-offs of the politicians more empirical research guided by theory is necessary in order to find the optimal combination of institutional incentives for each context.

3.1.3 POLITICAL COMPETITION

The degree of political contestability should be at the heart of all models of democracy. In principle, competition helps align politicians' incentives with the interests of the public, as they can select their preferred politicians from a pool of candidates. Therefore it is important to analyse the links between political competition, economic policy, and economic performance. Although the literature on this is limited because of endogeneity issues, it is a nascent area that should get increased attention.

Battaglini (2013) develops a theoretical model of the effects of electoral competition on fiscal policy, and concludes that competition does not necessarily lead to Pareto optimal

[24] Dal Bó and Rossi (2011) use six objective measures of legislative performance: attendance to floor sessions, participation in floor debates (measured by number of speeches), committee activity (attendance to committee sessions and participation in the production of committee bills), the number of bills each member introduced, and how many of these bills became law

[25] The authors run an additional experiment to corroborate their results in the Argentine Senate in which 71 senators were randomly assigned to two-, four-, and six-year terms. The results are along the same line, but reinforce the idea that it is the time horizon, and not campaigning distractions, that drives performance differentials.

outcomes, partly because of time inconsistency and changes of preferences and the state of nature. He concludes that a majoritarian system with smaller districts will be optimal in countries with homogeneous constituencies; while countries with heterogeneous municipalities will have a stronger incentive to choose larger districts. Therefore, results of competition seem to depend on the electoral rules and the fundamentals of the economy.

Besley, Persson, and Sturm (2010) analyse the implications of political competition on economic growth. They formulate a model which predicts that competition induces political parties to implement growth promoting and pro-business policies, rather than their private agendas. In other words, a big electoral advantage gives the dominant party less incentive to appeal to swing voters, and a near match changes the incentive of politicians. These predictions are supported by historical levels of competition across US states. In most circumstances, a balance of powers would help to promote competition within electorates, and reduce electoral fraud even within autocratic regimes.

Once a politician is in office, political competition may also determine how reelection incentives affect corruption. According to Ferraz and Finan (2009), a higher electoral advantage will reduce the disciplining effect of elections. In their data, the difference between first and second-term mayors' performance is smaller in municipalities where the elections are less competitive. This suggests that re-election incentives are weak when there is little electoral competition.

However, in cases of weakly institutionalised states the results are less clear-cut. La Ferrara and Bates (2001) study the case of political competition in weak states, and conclude that loyalty and political identity are key to gain room for political maneouvre and to attract voters even when private rents are taken at the expense of public goods provision for the general population.[26] This can be exacerbated when the regime is authoritarian but elections are permitted.

While competition is not a variable that can be affected directly by policy, it can be shaped indirectly by choices of institutions and electoral rules. For this reason it is important to increase our understanding of the role of political competition in the electoral process and policy outcomes.

3.1.4 FLAWED ELECTORAL PROCESS: CORRUPTION, USING THE STATE TO REMAIN IN OFFICE, POPULISM AND PANDERING

Incumbent politicians are often tempted to use state resources to obstruct electoral accountability. This includes activities already covered ranging from buying the press to using state resources to cement their incumbency advantage. They can also make elections fail by introducing procedural flaws.

[26] Weak states are characterised with: the government not having monopoly power, democratic institutions are weak, politicians compete for private rents, and politics becomes "personalistic".

For instance, it is not surprising that elections fail to keep politicians accountable when the latter have ample opportunity to rig the results or when violence prevents the electoral count from being representative of the feelings of a majority of the citizens. Recent research has tested the use of new technologies in preventing election fraud and intimidation. Callen and Long (2013) apply a simple cross-check of precinct counting using mobile phones in Afghanistan and find an important reduction in miscounting. More research is necessary to find and implement new methods of ensuring free and fair elections.

Elections are also often marred by vote-buying. Too often voters feel that their vote is not valuable in terms of electoral accountability and are thus willing to modify it in exchange for little amounts of money or in-kind gifts. Despite this entrenched behaviour, however, Vicente (2012) shows that simple interventions such a voter education programs can disrupt it and lead to more conscious use of the right to vote. Similarly, the free use of this right is often affected by violent intimidation. A nascent empirical literature on this phenomenon (Fafchamps and Vicente 2012, Collier and Vicente 2012) shows as well positive effects of simple information campaigns and starts to converge towards a framework to understand the determinants of these behaviours.

It is indeed important to understand better the incentives that lead elites to engage in different types of election manipulation: there is a wide range of deleterious activities that range from vote buying to ballot stuffing and from intimidation of rivals to the encouragement of widespread electoral violence. This requires an empirically supported theoretical framework that can account for all these behavioural options. Otherwise any policy intervention designed to tackle a single one of these phenomena might have the unintended consequence of simply translating distortions to the other margins without significantly increasing the quality of the electoral process.

Incumbents also often try to escape effective accountability by the less perverse means of populism and pandering. While populism is typically characterised as "pro-redistribution." a significant number of policies described as populist are highly distortive. Many times, these distortions are strong enough to redistribute back to elites. Similarly, elections also increase policymakers' incentives to pander – implement a policy that voters think is in their best interest, but that policy makers know it is not. As reported by Ashworth and Shotts (2010), the incentives to pander can be offset when voters learn, prior to election, whether the policy proposed is genuine or a form of pandering. This is another positive role for the media, although it is important to keep in mind that certain biased coverage can instead exacerbate the incentives to pander.

3.1.5 POLITICAL ACCOUNTABILITY: SUMMARY OF EVIDENCE, MISSING LINKS AND POLICY IMPLICATIONS

The link between the quality of institutions and accountability with economic development is widely acknowledged but a causal link is difficult to identify. This section synthesizes the recent literature on political accountability using the framework of models with ex ante and ex post asymmetric information. Although research on political accountability has been limited until the recent past, the empirical literature on the topic has been growing. Researchers have been increasingly able to overcome problems of endogeneity, common in social science investigations. Efforts to continue exploring this topic are now more important than ever and, therefore, a priority for the International Growth Centre.

First, researchers should continue dedicating efforts to explore the role of information provision on accountability in developing countries, and how social networks and social organisation shape citizens' beliefs. In other words, is it true that lack of information is a binding constraint in keeping corrupt and underperforming politicians in office? Access to information by itself does not guarantee that people receive it, and as such is not sufficient to improve accountability. It is also not difficult to find situations in which citizens are informed but leaders remain unaccountable. It is also an open question which is the medium that provides information more effectively, but the answer is probably very context-dependent in this case. Finally, more evidence on the behaviour of mass-media and the relationship with politicians is important to understand which constraints are relevant in preventing the spread of politically-relevant information.

The second big area within political accountability explores the value of holding office and the effect of term mandates and term limits on policymaking. Returns to being in office depend on politicians' preferences for financial returns, power, aspirations, and future career prospects.

These would influence how accountable they would be to their constituents, and the effort they would put into governing. Term limits and term mandates act as external factors affecting the time horizon politicians face and, hence, the policies they implement. Ongoing research on the returns to holding office and the electoral processes is helping unbundle the different determinants of political accountability. However, while there is valid evidence on the effect of career concerns in developed countries, more research is needed in developing countries, where enforcement mechanisms and accountability tools are weaker.

Third, the degree of political competition leads to different dynamics and ultimate results depending on the local political context, institutional systems, cultural elements, and economic fundamentals. As such, although there is a general agreement among policymakers and researchers that political competition leads to better electoral outcomes and is welfare improving for citizens, in some cases competition could lead to welfare costs that are not compensated by the gains of competition.

Fourth, there is a need to study other frictions that lead to failures in accountability. Populism, pandering, and clientelism – analysed further in the following section – are responses to perverse voters' incentives. Although these practices are well-known common problems in developing countries, the proximate determinants have to be researched further. As we argue in the next section, this would include more research on how to change the political culture and citizens' expectations so they demand more service provision and better policies from their leaders.

Evidence-based policies aimed at increasing political accountability should have the dual objective of promoting inclusive growth and ensuring that a stronger institutional system remains in place independently of policymakers' turnover. This convergence process requires a coordinated effort to work simultaneously to align the incentives of the main key players with those of the general population, while also reducing information asymmetries and the chances of discretionary policies.

3.2 Aggregation of Societal Preferences

A second role of political institutions, which is fundamental to growth and development, is to resolve conflicts of interests between different groups in society. More precisely, when different groups want to implement different policies, effective political institutions should provide the instruments and the appropriate rules under which these groups can bargain, compromise, and settle for a unified choice. Doing so requires both that all groups in society are given the power to make their demands effectively and, relatedly, that groups trust the state institutions as a legitimate body to impose taxes, provide public goods and as a valid means of bargaining for policies.

This section starts from discussing why different groups in society may have diverging interests, and then analyses how groups come to trust and accept the state as a policy-maker who might, in the process of aggregation of preferences, approve policies that go against the interests of certain groups. Once we review the literature on the origins of conflicts of interests within society, we move to analyse the political consequences of several forms of conflicts of interests that commonly appear in developing countries, namely, (i) the politics of elite capture and clientelism, (ii) ethnic politics, (iii) politics of gender.

3.2.1 FORMATION OF POLITICAL PREFERENCES AND SOCIAL CAPITAL

There is a large empirical literature describing individuals' demands for different policies and the origins of such demands. In this subsection, we start reviewing the evidence on why individuals have given (and many times, diverging) preferences for redistribution, focusing the effects of economic background, experience and cultural factors.

Given diverging policy interests, the state will surely end up implementing policies that go against the preferences of some groups in society. The effectiveness of the state in aggregating conflicting preferences crucially relies on the recognition by citizens that it is a legitimate political institution to bargain for policy. It is therefore important to understand how citizens come to trust the state as such an arena. To approach this question, we review the literature on social capital and policy making, focusing firstly on the effects of different forms of social capital over compliance with laws and policies, and secondly, on the process of formation of social capital, discussing the effects of history, institutions and policies to foster social capital.

(A) Preferences for economic policies

There is a large theoretical literature that predicts which individuals are more prone to favour a larger versus smaller size of government. On the economic dimensions predicting policy divergence, this literature suggests that within a country with a given average income, lower income individuals should prefer larger governments, due to the fact that higher income individuals typically pay more of the taxes that support a larger government (Meltzer and Richards (1981)). This model also suggests that when taxes are more distortionary, all individuals become less willing to have larger governments. An empirical puzzle in this respect is that democracies, where the median voter is typically poorer than the mean, have lower tax rates than would be predicted by the Meltzer and Richard model. An explanation for this has been proposed by Benabou and Ok (2001) in their "prospects of upward mobility" (POUM) hypothesis: those who are relatively poor today may expect that they, or their children, will move up the income distribution in the future and be hurt by redistributive policies. Another reason why income differentials per se may fail to explain diverging preferences for redistribution is that people may care for equality in the *process* and not just in the outcomes. Alesina and Angeletos (2005) show that differences in perceptions of fairness of market outcomes can give rise to multiple equilibria: one where individuals exert lower effort and prefer a larger government, and one where they exert higher effort and demand a smaller government. They associate these two equilibria to the European/Latin American setting and to the US setting, respectively.

A large body of evidence has tested these predictions. Alesina and La Ferrara (2005) discuss the correlations between personal characteristics, measures of preferences for fairness and of expectations of income in the next year/5 years with measured preferences for redistribution, using the General Social Survey in the United States for 1978-1991. Overall, the authors find that (i) individuals with lower income levels prefer higher levels of redistribution, (ii) individuals with higher prospects of upward economic mobility prefer lower levels of redistribution, and this finding only comes about with measures of upward mobility connected to theory, and (iii) individuals with more concerns for fairness vote for more redistribution. Alesina and Giuliano (2011) extend Alesina and La Ferrara (2005)'s results to newer versions of the General Social

Survey and to the World Values Survey, finding broadly similar results. The authors further show that individuals who believe that income differences across individuals are driven by effort, instead of luck, are less prone to favour redistribution. However, it is hard to say with this evidence to what extent income actually determines preferences for redistribution, or whether other unobserved characteristics correlated with income determine preferences for redistribution. In this line, Durante, Putterman and van der Welle (2013) show evidence from a laboratory experiment on voting for redistribution of income, which is randomly given to individuals in the experiment. The experimental findings suggest as well that individuals' income reduces demand for redistribution, that fairness motivates redistribution, and further add that higher distortions from taxes and higher perceptions that income is driven by effort reduces demand for redistribution. While this result might not be applicable to in-the-field contexts, the overall picture from the current literature suggests that there are economic motivations behind diverging preferences for policy, but also that other concerns – such as preferences for fairness, or the extent to which income is driven by effort or luck – are relevant in determining preferences for redistribution.

If fairness concerns and beliefs about whether income differences are due to merit or luck are determinants of preferences for redistribution, and if learning plays a role in determining these beliefs and perceived fairness, we should expect individual experiences to have a strong influence over their preferences for redistribution and public policy. In fact, Giuliano and Spilimbergo (2013) document that there is an increase in beliefs that differences in income are driven by luck for cohorts who faced recessions when they were 18-25 years old versus other cohorts, more intense in regions more affected by said recessions. Consistent with this, cohorts that grew up during recessions tend to prefer higher levels of redistribution and to vote democratic. Alesina and Fuchs-Schündeln (2007) document that individuals living in areas that were previously in Eastern Germany have more pronounced preferences for higher redistribution than in areas previously in Western Germany, and that this is more so for older cohorts than for younger cohorts. This suggests that experiences with recessions and with communist state institutions drive people towards higher preferences for redistribution, confirming the idea that personal experiences change preferences for redistribution.

That being said, social factors beyond personal experience, such as cultural background and historical determinants, are also relevant for determining preferences for redistribution: Luttmer and Singhal (2011) look at the European Social Survey between 2002-2007, covering 32 countries. The authors show that within given destination countries, immigrants from countries with higher preferences for redistribution typically maintain higher preferences for redistribution, and this effect persists for at least 20 years after moving from the country of origin. Consistent with this, immigrants from countries with stronger preferences for redistribution vote more for left wing parties, and their children also prefer more redistribution. Grosfeld, Rodnyansky and Zhuravskaya (2013) analyse long-run impacts of the Pale of Settlement in Russia, showing that within Poland, Lithuania and Russia, the pale was enforced and imposed a geographical discontinuity in terms of presence of Jewish people. The authors show that in districts just inside the pale, anti-market culture and trust levels are significantly higher than in districts just outside the pale, arguing that one explanation for this is that hatred towards Jews generated bonding between non-Jewish communities, and fostered anti-market views due to Russians' attempt to prevent Jewish people from keeping their economic occupations.

The heterogeneity in the historical experience of many developing countries (e.g., within Africa and South Asia) with respect to size of the government and redistributive policies opens interesting research questions on how prolonged exposure to certain regimes affects today's demand for redistributive policy in these states. Are the trade-offs between fairness and efficiency in these countries comparable to those estimated for Europe and the US? Which dimensions other than current income and prospects of future mobility affect preferences for the role of the state in these societies? These are areas for future research in the IGC programme.

(B) Social capital and institutions

Since there are conflicting demands for policy within countries, it could be expected that individuals might not be accepting and compliant with particular public choices that go against their interests. How does the willingness to comply with public choices vary within a given society and across different contexts?

A few papers suggest that different value sets and cultural features drive the degree of compliance and acceptance of citizens and politicians with laws and the political system. Alesina and Giuliano (2011) show that in the World Values Survey, within given countries in given years, individuals who have stronger family ties display lower generalized trust, higher trust within the family, and are more prone to finding obedience an important value to pass to children; consistent with this, these individuals are considerably less likely to be politically active. To help with causal identification, the authors further look at whether second-generation immigrants coming to the same destination country differ on the basis of the typical family ties of their parents' country of origin. The authors confirm that second generation immigrants from countries with stronger family ties have lower levels of generalized trust and lower levels of political engagement. Along similar lines, Nannicini, Stella, Tabellini and Troiano (2013) argue that lower levels of social capital and civic values – as measured by blood donations per capita – also worsen the degree to which citizens can hold politicians accountable: in areas with lower social capital, politicians have higher absenteeism rates and commit more crimes. Despite this, in these areas citizens punish politicians less often with ousting them from office after observing absenteeism and criminal conduct of politicians. The authors posit that the explanation for these findings is due to the fact that politicians can more easily divide citizens with low civic values by providing group-specific transfers and, with this, extract more rents in equilibrium while still being re-elected. Finally, Miguel and Fisman (2007) suggest that politicians' behaviour is also influenced by cultural mores, showing evidence that politicians coming from more corrupt countries to New York receive more parking tickets, but that this effect only holds while these politicians have diplomatic immunity against parking violations. All these findings are consistent with the story that generalised social capital, civic values, trust, and cultural features are drivers of an individuals' compliance with the law and with the political system.

The findings in Miguel and Fisman (2007), however, suggest that institutions and policies might influence the observed political impact of these cultural values. Consistent with this, Dal Bó, Foster and Putterman (2010) discuss an experiment evaluating the impact of the democratic approval of rules to punish non-cooperators over the propensity to cooperate in coordination games. The findings suggest that when rules and punishments are approved democratically, citizens become more prone to cooperating than when rules are vertically imposed. While surprising, these results do not seem to reflect perfectly in the field: a large literature on community driven development (CDD) suggest mixed impacts of democratic rules on trust between individuals in society (for an extensive review, see Mansuri and Rao (2012)). Labonne and Chase (2011) use a differences-in-differences and a matching methodology and find that CDD had positive effects over participation in village committees but negative effects over other forms of collective action.[27] Moving to studies that have randomised access to CDD, Fearon, Humphreys and Weinstein (2011) find positive effects of CDD on contributions to public good games in Liberia, while Avdeenko and Gilligan (2013) and Casey, Glennerster and Miguel (2012) find no effect of CDD over measures of social capital in Sudan and Sierra Leone, respectively.

While potentially, these results might be driven by differences in context and differences in potential for collective action in different regions, they may also be due to (i) the particular design of the programmes, that provide different institutional settings for providing aid, (ii) the fact that the time horizon of the evaluations is relatively short: most results indicate impacts 2-4 years after the implementation of these projects, while the time it takes to build trust and social capital could be much longer, (iii) the fact that the relevant measures of cooperation might be different across different contexts, and that we just do not know which measure to look at for which context. More research is needed to fully understand these heterogeneous effects of participatory decision making over the propensity to cooperate.

Furthermore, research highlights that different public policies might also promote civic capital. Algan, Cahuc and Shleifer (2013) show that countries where teaching practices encourage more student participation are countries with higher levels of generalised trust, and the authors suggest this might be a causal relationship since even within schools, students that have more classes involving higher student participation are students with higher beliefs in cooperation – despite the fact that the authors cannot state to which extent this result is driven by teachers targeting teaching practices at more cooperative groups of students. The idea that education is at the root of the process of identity formation has also been empirically examined by Aspachs-Bracon et al. (2009) and Clots-Figueras and Masella (forthcoming). These authors exploit a policy reform in Catalonia, where the education system became bilingual in 1983, and find that the compulsory language policy had strong effects on identity: individuals exposed for a longer period to

[27] The same CDD project is also evaluated in Crost, Felter and Johnston (2013).

teaching in Catalan express stronger Catalan feelings. Cantoni et al. (2013) show that a change in the Chinese curriculum towards market ideology had a significant impact on students' expressed preferences in this respect.

The media is an alternative (possibly complementary) means of shaping individual preferences towards the role of the state and towards other groups in society. Paluck and Green (2009) study a randomised radio campaign in Rwanda discouraging blind obedience and encouraging critical thinking and collective action. The programme had a significant effect over reported willingness to express dissent, besides changing some measured practices in dispute resolution. Trujillo and Paluck (2011) estimate the impact of a soap opera that portrayed the involvement of a Latino character with the 2010 US Census around the passage of Arizona's Senate Bill 1070 immigration act, the strictest law against illegal immigration in recent US history. Individuals were randomly assigned to watch scenes of the soap that featured the character but not the Census, and pro-Census scenes. They found positive effects of watching pro-Census scenes on attitudes towards the US government and on behaviour such as wearing pro-Census stickers and taking information flyers.

A number of low-income countries are reconsidering education policy at present, and media (especially TV and internet) is fast expanding in the entire developing world. There is potential for these means to be used to foster a greater sense of civicness and trust in institutions, but more work is needed to understand how to shape such messages in light of context specificities, as well as the long-term impact of this type of interventions.

(C) Social and legislative rules

The actual effect of electoral and legislative rules depends on the interactions with broader rules, norms, and power dynamics influencing political participation, coalitions, and transparency. Therefore, laws per se do not guarantee control over its aim, and the difference between *de jure* and *de facto* should be taken into account whenever policies and laws are being drafted. If citizens do not formally rely on the government to provide them public services, and do not expect it to do it, they will also demand little accountability.

Beyond the anti-corruption laws and the structure of the state, the *de facto* practices and the relationship of both citizens and politicians might need to change. Changing the culture and tolerance towards corruption might take years and requires both political support and citizens' demand for accountability. A step in this direction is to partially detach leadership and power from the person and attribute it to the role, allowing for more unbiased enforcement, while also empowering citizens to demand adequate behaviour from their policymakers.

3.2.2 PREFERENCE CLEAVAGES IN DEVELOPING COUNTRIES

(A) Elite capture and clientelism:

While conflict between different socio-economic strata are pervasive in all societies, in settings with weak institutions the consequences of this cleavage are exacerbated by the ability of the rich and powerful to easily capture political institutions. In this section, we first review the literature on the consequences of elite capture and clientelism, focusing on consequences for public goods provision, public jobs allocation, quality of political selection and corruption. Next, we move to the political processes that allow elites to capture power. We discuss evidence on the impact of different institutional arrangements – namely, election-based mechanisms versus deliberation-based mechanisms. Based on this, we discuss evidence on the process of vote buying, clientelistic practices and finally, the evidence that elites persist in power.

To begin, it is useful to write a clarification on the definition of elites here. One could define the outcome of elite capture as differences in "welfare weights assigned to wealthier and more powerful classes in policy making and implementation" (Bardhan and Mookherjee (2012), p. 2), or, in other words, certain groups in society seem to have better connections to the politicians and better capacity to influence the process of decision making. For this reason, we review under the label of elite capture all the literature that covers the influence of powerful groups, but also the literature on connections to politicians.

The consequences of elite capture: Evaluating the effects of elite capture faces several difficulties besides the traditional econometric issues. The first one has to do with identifying potential elites. These can be groups with formal power to affect policy making, but also informal elites within society, richer groups, business groups, or individuals and firms connected to politicians. These groups might be hard to identify because of lack of information on connections to politicians. Hence, while a typical approach in the literature is to identify a potential elite group and evaluate whether it is being benefited by policy making, a rejection of these tests does not rule out the presence of elite capture, just rules out that the groups analysed are in fact elites. Secondly, elites might capture rents at many points throughout the policy making process: they might capture policy by buying votes (either directly or through promises of clientelism), capturing a given elected legislature through lobbying or capturing the process of implementation of policy. Recent work by Della Vigna et al. (2013) shows that market based transactions can also be used to curry political favours. Again, a rejection of a positive impact of elite presence over a certain step in policy making does not reject the presence of elites in the overall political process.

That being said, a large number of studies have observed positive rents for elite groups with power to capture political decision-making. On the value of connection to politicians for firms, Fisman (2001) estimates that firms more connected to Suharto in Indonesia faced negative abnormal stock market returns on the days following bad news about Suharto's health. Khwaja and Mian (2005) show that firms whose directors are politicians receive more loans and default more often. These increases in loans are concentrated in government banks, and for firms with directors that win elections; loan sizes increase more in government banks than for firms with directors that lose elections. There is also at least one piece of evidence that shows that firms are aware of the value of political connections: Fafchamps and Labonne (2013) show that for the Philippines, individuals related to politicians who won elections by very small margins have a 1.3 percentage point higher probability of being in a managerial position.[28]

Democracy and institutions: Given the existence and economic importance of elite capture, a natural question is how different institutional settings affect elite capture. Recent evidence discusses the impact of democratic institutions over elite capture. Cascio and Washington (2013) study the impact of removing literacy requirements over enfranchisement and policy making for black populations in the United States. The authors show that in states that had literacy requirements for elections prior to 1965 – when literacy requirements were nationally forbidden – the relative amount of state spending in districts with higher versus lower black shares of the population rose more than in states that did not have literacy requirements prior to 1965. Beath, Christia and Enikolopov (2013a) discuss the impact of elections of projects versus village-based meetings on elite influence and popular satisfaction with the projects in Afghanistan. The authors find that in election villages, public goods are built further away from the village leader's house, indicating that elections act to reduce elite influence. Moreover, citizens report to be more satisfied with project implementation under elections than under village meetings. Olken (2010) studies a community driven development project, where some villages were randomly selected to choose the allocation of aid through elections, while other villages choose through representative-based meetings. In villages with elections, individuals report higher satisfaction with public goods, greater awareness about projects being done and higher willingness to contribute to projects, despite not observing detectable changes in objective measures of public good provision. This later finding, though, might be purely the effect that it is hard to capture in an objective way the ways in which public good provision improved. Finally, Martinez-Bravo et al.(2013) find that the introduction of village elections in China increased public good provision, reduced cadre rents and relaxed the implementation of centrally mandated policies that villagers dislike.

Overall, there is some evidence that elections are a mechanism capable of decreasing elite influence, and that public goods and spending become better targeted to poorer

[28] The authors suggest that this number partially reflects positive effects of being connected to a politician holding office: comparing relatives of candidates who won in 2007 to relatives of politicians who did not run in 2007 but won in 2010, the authors find that the effect of being connected to politicians over having managerial jobs is of 0.5%. On the other hand, given that this last number is not comparable to the regression discontinuity impact, the authors suggest that the regression discontinuity effect also captures in part the negative effect of being connected to a losing politician.

individuals when elections are introduced. This being said, the result in Olken suggests that it might not always be easy to capture the real effects of elections over public good provision and policies targeted for poorer households, suggesting that democracy might not affect policy making equally in different settings.

Vote Buying and clientelism: In view of the fact that elections typically improve targeting of policies and reduce elite influence, many countries adopt the secret ballot. Yet, other mechanisms of influence were adopted by elites to still work in environments with secret elections. Promises of local transfers and small "perks" and "favours" to local groups in exchange for votes, and direct vote buying are still prevalent even in countries with open elections. Stokes (2007) provides a review of the political science literature on this phenomenon. Here, we review the recent evidence on these mechanisms, some already touched upon in the section on accountability.

First, there is evidence that clientelistic messages are effective at getting votes: Wantchekon (2003) analyses an experiment in Benin where political parties agreed to randomly select some villages in their strongholds to provide only clientelistic messages that emphasise local transfers and identity, while selecting other villages to provide "general public goods" only messages. In control villages, parties kept their usual mixed campaigns. The experiment shows that clientelistic messages are highly effective at sustaining electoral support for the incumbent party, but also find that these effects are heterogeneous, being more effective when targeted at men and to less informed and segregated voters. Fujiwara and Wantchekon (2013) run a similar experiment in Benin, where the authors first worked with local policy experts to develop a programme with effective policy proposals. After this, the authors ran campaigns at randomly selected villages in the names of cooperating political candidates, replacing the usual clientelistic messages. The campaigns included town hall meetings with policy discussions with local village members based on the initial policy proposals. The campaign reduced vote margins, reduced the vote share of dominant candidates, and increased the vote share of non-dominant candidates. While this campaign suggests that deviating from clientelistic policies is good for competing challengers, and that this might give them higher power to compete with dominant incumbents, the evidence also suggests that dominant candidates have incentives to use clientelistic messages as a way of keeping power.

Similarly, despite the fact that elections are secret, parties are able to effectively buy votes: Finan and Schetcher (2012) show that middlemen in charge of buying votes typically know members of their village well in Paraguay. Furthermore, individuals who are targeted by vote-buying messages have higher measured degrees of reciprocity, despite the fact that middlemen reports indicate that more reciprocal individuals do not demand more vote-buying. These results suggest that middlemen are targeting reciprocal individuals for vote-buying. Larreguy (2013) shows that for Mexico, in places where the fit between communal lands – where the PRI party has more power – and electoral districts is higher, vote shares for the PRI are higher when the state governor is from PRI, but not so when the state governor is from a different party. The author interprets this result as consistent with the fact that a better fit between electoral districts and communal lands improves PRI's capacity to monitor clientelistic brokers and to provide them with incentives to buy votes more effectively. Consistently with the stronger clientelistic networks story, these communal lands also have lower schooling provision when the state governor is from PRI. On the historical relationship between landed elites and clientelist practices, see also Baland and Robinson (2008) who show that in Chile, the introduction of secret balloting changed vote patterns more intensely in areas with more landless peasant population, suggesting access to land was a pervasive quid pro quo in exchange for votes.

While clientelism and vote buying seem to be effective as a political strategy, there is some limited evidence that policy-making might play a role in reducing the incidence of clientelism. As noted in the section on accountability, Vicente (2007) analyses a randomised campaign in Sao Tome and Principe, promoting "voting with conscience" instead of voting for money. The campaign was effective at reducing the extent of vote buying, and reported effectiveness of vote buying strategies. Despite this, the campaign reduced turnout, suggesting that when the alternatives are between voting with conscience and voting for money, money induces turnout. Interestingly, this contrasts with the results from Fujiwara and Wantchekon (2013), where turnout does not fall in response to public-good based campaigns instead of clientelistic campaigns.

Policy influence: A final mechanism of elite influence over policymaking happens through capture of the process of policy implementation. Bardhan and Mookherjee (2006) review the literature on local capture of policy by elites. More recently, Beath, Christia and Enikolopov (2013b) analyze an experiment in Afghanistan where the authority to allocate food aid in a community driven development project is chosen randomly for different villages: the electoral council allocates aid in some villages, women allocate aid in others and village leaders allocate aid in other villages. Besides that, the authors further randomise the possibility of elections. While elections do improve some measures of targeting of food aid to vulnerable people, this happens to a smaller extent when village leaders have authority over the allocation of food aid. Moreover, when the village leaders have authority to allocate food aid, they and the villagers connected to them are more likely to receive the aid. Alatas et al.(2013) discuss an experiment in Indonesia where the procedure for targeting policy for different households within villages was randomised: out of 400 villages, some villages got the targeting of the programme on the basis of a proxy-means test, some other villages got programme targeting on the basis of village meetings, and finally, other villages got targeting on the basis of elite members' choice. Results suggest that elites with formal power captured the programme by affecting who got targeted for the programme, while not affecting the probability that a person received aid. That being said, the quantitative effects are relatively small in this context, which might be due to the fact that potentially, village members might be able to hold elites somewhat accountable, given that villagers know who is poor and who is not.

Elite persistence and elite competition: Finally, a few papers discuss whether elites manage to persist in power, and whether competition is able to limit the extent of elite capture. Querubin (2013a) discusses elite persistence in the Philippines, showing that candidates that win by small margins of victory face a significant increase in the probability of having a relative in power later on when compared to candidates that lose elections by a small margin. Dal Bó, Dal Bó and Snyder (2009) find similar evidence for the United States since 1789.

Potentially, in theory, competition between different elite groups could reduce the effect of elite capture. Empirical results are mixed. Acemoglu, Reed and Robinson (2013) discuss evidence for Sierra Leone, showing that chieftaincies with a larger number of ruling families – something that the authors argue to be determined largely by historical determinants – are not different in terms of early development, but are more developed today, suggesting that competition between ruling chiefs induced development. This suggests that one policy measure to prevent elite persistence and induce lower levels of elite capture is to forbid office holders from getting re-elected many times, opening room for competitors to take part of the political process. Surprisingly, this policy is not effective in the Philippines at reducing elite capture and promoting political competition: Querubin (2013b) shows that the introduction of term limits in 1987 did not negatively affect dynastic incumbency advantage, and in some estimates, it has even increased the extent to which dynasties persist in power, maybe, as a strategy for incumbents to hold on to power when their term limit binds.

(B) Ethnic politics

The empirical evidence suggests that ethnically fragmented countries have significantly lower growth than more homogeneous countries. Easterly and Levine (1997) estimate that countries with higher ethnic diversity are the ones with worse schooling outcomes, lower financial depth, higher black market premiums on exchange rates, lower fiscal surpluses and worse infrastructure – as measured by telephones per capita. Similarly, these countries have a lower GDP per capita growth rate, which has been interpreted as an indication that, potentially, ethnic divisions might be causing lower growth rates through worse policy choices.

A large literature on both macroeconomic and microeconomic impacts of ethnic fragmentation, reviewed in Alesina and La Ferrara (2005), while confirming these basic results, highlights some further details of the links between ethnic fragmentation and economic outcomes. The reviewed macroeconomic evidence points not only to the fact that ethnicity is negatively correlated with growth, but it is more so in poorer and less democratic countries, which again suggests that ethnicity may affect growth by aggravating political failures. The authors further review the microeconomic evidence on the effect of ethnicity over economic performance and public goods both in the United States and in developing countries, which qualitatively confirms the macroeconomic level results, but highlight how different measures of fractionalisation have differential impacts over economic outcomes and public goods provision. Further qualitatively similar results are obtained by Desmet, Ortuño-Ortíz and Wacziarg (2012), who highlight the role of finer versus coarser measures of linguistic fractionalisation and polarisation, and by Alesina, Michalopoulos and Papaioannou (2013), where the authors obtain measures of between-ethnicity economic inequality, proxied by differences in satellite images of nighttime luminosity for different homelands of different ethnic groups, and show that this measure is correlated with lower regional development, higher political inequality, perceptions of discrimination and lower provision of public goods.

This body of evidence ultimately suggests that one mechanism through which ethnic fragmentation is linked with economic performance is through aggravated political failures. Furthermore, this literature highlights how different measures of ethnic diversity might be relevant for different contexts, which suggests that studying the impacts of ethnic diversity on the microeconomic level might have a high potential in terms of providing clearer interpretation of the results. For a better understanding of how this happens, we review first the micro-econometric literature on the impacts of ethnic diversity on electoral politics, public good provision by the state and accountability. Overall, the literature states that ethnic fragmentation worsens public policy and accountability in countries with non-democratic institutions and with institutions without appropriate checks and balances. We then move to analysing the effects of ethnic fragmentation over collective action, decentralised provision of public goods and national identities. Overall, the evidence suggests that ethnic fragmentation not only undermines political outcomes, but also undermines citizens' capacity to undertake collective action, provide public goods locally and identification with national identity, while increasing the salience of ethnic identities.

Political economy in ethnically diverse communities: A first channel through which ethnic diversity might be linked to worse economic performance is through worsened political outcomes, which would explain the lower levels of public good provision in more ethnically fragmented regions. To highlight alternative political mechanisms that could explain such a relationship, it is useful to discuss some alternative theories of ethnic politics.

A first mechanism through which ethnic fragmentation may constrain the work of the state is that members of different ethnicities might have exogenously different tastes for public goods: these different groups might live in different regions, which might bring about different demands for local public goods; or they might have systematically different occupations, which might bring different demands for economic policy; or ethnic groups might simply be a marker around which individuals can more easily organise to expropriate non-co-ethnics (see Esteban and Ray (2008)). A second alternative mechanism, formalized in Padro I Miquel (2007), suggests instead that politicians might endogenously set public policies in a way that creates conflicts of interests among ethnicities: in his model, politicians are able to sustain themselves in power by granting small clientelistic rewards to the group of their co-ethnics, while not distributing anything to non-co-ethnics and keeping most of the resources as personal rents. In this model, an ethnic group is willing to support a co-ethnic politician for the fear that, by not doing so, the government will fall in the hands of a non-co-ethnic politician who will, in turn, not bring any clientelistic rents at all to the group. Both of these frameworks induce as testable implications the hypotheses that (i) individuals vote on an ethnic basis and (ii) more ethnically fragmented societies should have different public goods allocations than more homogeneous societies. The key difference in testable implications across the two frameworks is that in Padro I Miquel (2007), politicians encourage ethnic cleavages partly to be able to extract more rents, so that ethnic voting should come with worsened accountability. On the other hand, this is not a necessary implication from models were citizens vote ethnically for exogenous reasons.

With this in mind, we will review first the literature on the interplay between ethnic fragmentation, elections and selection of politicians. This should provide some insight into the extent to which politicians can manipulate ethnic cleavages in their favour. Then, we will move to the literature highlighting the effect of ethnic diversity over state provision of public goods, and finally cover the literature on the impacts of ethnic diversity over political accountability.

Elections, political selection and ethnic fragmentation: There is some evidence of incidence of ethnic voting. For two examples, Dunning and Harrison (2010) study an experiment in Mali, where political messages by different politicians were sent containing different amounts of information on the politicians' last name – which signals both ethnic origins and "cousinage." a particular social institution in Mali. Randomly showing the part of the last name signaling ethnic origin increases reported support of co-ethnic voters, and similarly, showing the part of the last name signaling cousinage increases support of "cousins". Methodologically, the paper further makes the point that despite these effects, given the cross-cutting nature of cousinage and ethnic cleavages, it is hard to measure the pure impact of ethnicity on voting, which again suggests that studies need to be careful and aware of context when looking at the effect of ethnicities on voting. Dunning (2010) uses a similar methodology to evaluate the impact of race, class and linguistic cleavages in South Africa, showing that there is a significant race effect for white voters, but not for black voters; linguistic groups that have acquired little power in the post-Apartheid regime are the ones who exhibit most strong linguistic voting, and finally, poorer groups seem to prefer richer candidates.

While these papers present evidence of ethnic voting, it is not obvious that ethnic motivations stay constant over time: politicians could gain from manipulating these ethnic motivations during periods of elections. Eiffert, Miguel and Posner (2009) evaluate whether ethnic identification becomes more salient during periods of election. They use the Afrobarometer survey between 1999-2004, which asks to a random sample of 35,505 individuals in 10 African countries questions on whether they identify themselves mostly in ethnic, occupational, religious, gender or other terms. The authors then show that when the survey is run closer to elections, citizens tend to identify themselves more accordingly to ethnic terms than to other markers. Moreover, this is more so when elections are closely contested.

This evidence is consistent with political manipulation of ethnic preferences on the eve of elections as a mechanism to gather votes while still being able to extract rents. This interpretation can be further reinforced by the previously cited literature on clientelism, specially noting that the context of the experiments in Benin was one of an ethnically fragmented society. Still, this evidence is also consistent with the existence of exogenously set ethnic preferences that become more salient during periods of elections due to behavioural biases of voters. Whichever interpretation is chosen, however, the theories cited above indicate that ethnic fragmentation, to the extent that it leads to ethnic voting, should lead to considerably different allocations of public goods. We review the evidence on this in the next few paragraphs.

Ethnic fragmentation and state provision of public goods: An extensive review of this literature was conducted by Alesina and La Ferrara (2005), as cited previously. Here, we review some of the most recent literature particularly on state provision of public goods. Banerjee and Somanathan (2007) look at correlates of public goods provision in Indian rural villages between 1971-1991. Social fractionalisation, in the authors' terminology, is negatively correlated with access to primary school in 1971, and with growth of secondary and tertiary school in the period analysed. It is further correlated with a lower number of health centers, maternity/child centers, family planning centers, and piped water. Bandiera and Levy (2011) estimate for Indonesian villages the comparative effect of moving from an elite-based decision system to a democratic system in villages with more and less ethnic minorities. The results indicate that in villages with higher fractions of ethnic minorities, less public goods are provided in response to democracy, which the authors argue to be consistent with elite capture when voters vote based on not only public goods but also on other margins.

This raises the possibility that by enforcing minority political rights and creating mechanisms of checks and balances, such under-provision of public goods and targeting of public goods at preferred ethnicities would not happen. In fact, there is some evidence that this is the case: Pande (2003) exploits the fact that in India certain states are required to elect members of scheduled castes and tribes – those states are chosen according to population shares of scheduled castes and tribes –, to evaluate the impact of these political reservations over different forms of public spending. Pande (2003) finds that between 1960-1992, states that had to elect scheduled castes provide more job quotas, though they have no detectable effect over welfare spending targeted at scheduled castes or over total spending. On the other hand, states that were forced to elect scheduled tribes spend significantly more, spending significantly less in education and significantly more in welfare spending targeted at scheduled tribes. Duflo (2005) reviews the literature on political reservations. Burgess et al.(2013) look at road construction in Kenya, showing that given presidents build more roads in the region where their co-ethnic group lives than in other regions, and that these given presidents do more so when they are presidents during dictatorial regimes than when they are presidents during democratic regimes, suggesting that democracy provides checks and balances constraining the degree to which presidents can target spending at their preferred constituencies.

Ethnic fragmentation and accountability: A literature also investigates the political accountability effects of ethnic fragmentation. Banerjee and Pande (2007) study the effect of ethnic (caste) preferences on politicians' quality in India. They compare non-low-caste parties who win elections in jurisdictions with a large versus a low share of the population being low caste, and find that the former are less likely to have criminal records. This suggests that voting on ethnic (caste) basis creates a relative advantage for non-low-caste politicians in regions with lower shares of low caste population, which in turn gives them the margin to be more corrupt. These ethnic preferences, however, seem malleable: Banerjee, Green, McManus and Pande (2012) study a randomised campaign in which some randomly chosen polling stations were selected to receive a campaign against caste-based voting, while other polling stations where selected to receive a campaign against voting for corrupt politicians. The case-based voting campaign increased turnout by 8% and reduced self-reported caste-based voting by 40%. This evidence is consistent with a model in which ethnic voting can be particularly primed for politicians' purposes to allow them to extract more rents while providing relatively small clientelistic benefits, as in Padro I Miquel (2007).

Ethnic diversity, collective action, public goods and national identities: In view of this evidence, citizens of ethnically fragmented countries should have the motivation to engage in collective action as a mean to compensate for the failures of the state in providing public goods. The evidence, however, suggests that ethnically fragmented regions are also worse in terms of collective action, suggesting that lack of collective mobilization might be another mechanism through which more fragmented societies have worse economic performance.

Decentralised public goods provision and collective action: Alesina and La Ferrara (2001) show evidence from the General Social Survey in the United States between 1974-1994. Areas which are more racially and ethnically diverse have significantly lower participation rates in church groups, sports groups, service groups, hobby groups and nationality groups. Miguel and Gugerty (2005) show evidence for Kenya that in schools with higher pupil ethnic fragmentation, schools are less able to collect donations, provide lower number of desks per student and use fewer sanctions to enforce donations and payments.

Further, more ethnically fragmented areas have lower number of schools. While there might be alternative explanations for these findings, this is consistent with ethnic fractionalisation reducing the capacity of individuals for collective action. Tontarawongsa (2013) shows evidence that in Gambia, individuals with more co-ethnics in their villages are more connected to others, and that more connected individuals typically contribute more towards public goods. Finally, Habyarimana, Humphreys, Posner and Weinstein (2007) run laboratory experiments in Kampala, Uganda to distinguish between different explanations of why ethnicity matters for public goods provision. Their results indicate no detectable difference between individuals with different ethnicities in preferences for public goods – though this might be due to the fact that these individuals are homogeneous in terms of income and area of residence –, but show that individuals of the same ethnicity are more able to locate each other; that in dictator games, individuals who are observed by co-ethnics donate more than the ones not observed by co-ethnics; and that in prisoner's dilemma games augmented to allow for an enforcer to punish deviations, enforcers typically punish co-ethnic deviators more often than non-co-ethnic deviators. This is consistent with a story in which co-ethnics can coordinate better to provide public goods, and as a consequence, more fragmented areas are less capable of including all individuals in tasks that require collective action.

National identification, national institutions and ethnicity: The fact that the state is less able to provide public goods in more ethnically fragmented environments also suggests that regions where politicians appeal more to ethnic lines are also regions where individuals will identify less with their nation, and will identify more along ethnic lines. Miguel (2004) presents an early contribution on this theme, comparing villages in Kenya and in Tanzania separated by the border between the two countries. While Tanzania engaged in many nation-building policies,

Kenya's politics is historically based on ethnicity. Consistently with this, the author shows that public goods provision in Kenyan villages are more sensitive to ethnic fragmentation than in Tanzania. Moreover, qualitative interviews confirm these findings: school headmasters reported there were difficulties in Kenya associated with different ethnic groups fighting over who "owns" the school, while no such difficulties were reported in Tanzania. Michalopoulos and Papaioannou (2013) undertake a similar exercise of comparing the performance of given ethnic groups that were divided by the arbitrary borders set up during colonial periods in Africa. While there are no distinguishable differences in average economic performance of ethnic groups across the two sides of the borders, this masks the fact that when the homeland for an ethnic group is closer to the capital city of a country – suggesting higher state influence – economic performance by a given ethnic group is different on the two sides of the border. This evidence suggests that the impact of ethnicity on economic performance is in part influenced by lack of effective state presence with efficient provision of public goods.

(C) Gender

The empirical literature indicates that there are fundamental differences in preferences for redistribution and for policy intervention in different sectors between men, women, and other demographic groups. For instance, women, youth and African-Americans seem to have stronger preferences for redistribution (Alesina and Giuliano (2010)) and social policies. Furthermore, Croson and Gneezy (2009) found gender differences in risk preferences, social preferences, and competitive preferences. Because political participation remains unbalanced in many low income countries, the relatively lower female representation – as voters and as policy-makers – may result in women's preferences that are not fully included in policies and political decisions.

This limited female presence in leadership roles has generated some public policy response and an array of studies on the topic. The underlying rationale is that direct policy intervention, such as quotas to ensure female representation in governmental top level positions, could help to expedite the process of achieving gender equality in politics and policy, e.g. by allowing people to learn about the quality of female candidates and changing preferences in the long run.

Evaluating the impact of gender quotas in government and on corporate boards, a direct policy intervention, Pande and Ford (2011) assess the equity and efficiency implications of these quotas.[29] The evidence shows that quotas increase female leadership in government – showing that low participation is not a lack of interest – and does not come at the cost of efficiency. Moreover, the data shows evidence that mandatory female participation does not seem to create a persistent backlash among citizens. Consistent with this, Beaman et al. (2009) found that female participation weakens stereotypes about gender roles in the public sector; and biases on perceived effectiveness are eliminated when the region is exposed to a woman leader for the second time.

Electing female as opposed to male candidates has a significant impact on policy, indicating that women and men have different policy preferences. Chattopadhyay and Duflo (2001) exploit the random system of gender quotas for local government positions introduced in India in 1993 and find that female politicians invest more in infrastructure that is directly relevant to the needs of rural women (water, fuel, and roads), while men invest more in education. Moreover, quotas lead to higher citizens' participation, as women voters

[29] Countries that adopt quotas may be doing in response to changing attitudes about women. Then, causal interpretation may not be completely accurate if reverse causality issues are not addressed. The India reservation system allows for a natural experiment measuring the causal impact of mandating a female leader and, therefore, most causal evidence in the literature is based on India. A constitutional amendment in 1993 made it compulsory for Indian states to decentralise policy-making to a three-tier system of local governance. In addition, it requires that one-third of leader positions be reserved for women, and that reservation be rotated between elections.

are more inclined to participate in the policy-making process if they feel identified with their village council.

Although gender realignment in politics and policies decisions has happened gradually, gender differences still exist world-wide, and are more persistent in developing countries. Therefore, there is still a long road to eliminate gender gaps which requires the study and design of effective policy-interventions. These should externally lead to structural changes in the attitude towards gender equality in leadership participation, public services, and attention to preferred policy choices.

3.2.3 SUMMARY OF EVIDENCE, MISSING LINKS, AND POLICY IMPLICATIONS

While the literature has recently advanced considerably on the evaluation of both the causes and consequences of conflicting preferences for public goods, there is still much to learn on the political economic effects of conflicting preferences in developing countries. First, while some studies on the topics above discuss the impact of certain policies and institutional reforms over provision of public goods, and how this ameliorates problems of conflicting preferences, there is still much to be understood. For instance, relatively little is known in terms of policies that could encourage political mobilisation by oppressed groups, or how economic policies encouraging trade with oppressed groups could reduce incentives for political oppression of these groups.

Second, while many of the questions here were raised on macroeconomic contexts, the need for causal identification implied that many of the answers were given using variation in local contexts. The heterogeneity of the relevance of these mechanisms at the local level suggests that a possible way of dealing with the political economy problems posed here may relate to the design of centralisation versus decentralisation of policy. While there are some studies initially exploring this topic (for a review, see Bardhan and Mookerjhee (2006)), more is needed to be done for a full understanding of the political economy consequences of centralisation and decentralisation in socially and ethnically diverse settings.

Finally, many important margins of conflicts of interest in developing countries, with potentially important consequences for growth and development, are relatively unexplored. For instance, while many authors report that cities have higher influence over government decision-making than rural areas, there are relatively few quantitative studies exploring these claims (for one recent exception, see Shifa (2013)). The growing urbanisation trend in most low income countries makes this gap all the more important to fill.

3.3 Conflict

When society cannot find peaceful mechanisms to resolve political disputes, it falls into civil conflict, which is catastrophic for growth and development. Unfortunately, the prevalence of this is surprisingly high: in Africa, for instance, about one third of the countries faced civil wars during the mid-1990s (Blattman and Miguel (2010)), in the world, the average civil conflict lasts for about 7 years (see Collier et al. (2003)). This mechanism for settling conflicting interests comes with large welfare loses: between 1950 and 1997, 7 million people died during wars according to the Correlates of War project. Furthermore, mortality increases indirectly through increased disease prevalence in both the country facing the war and in neighbouring countries, and GDP per capita falls substantially during wars[30] (for a review of some of the macroeconomic evidence on this, see Collier et al. (2003)). In the face of this, investigating why countries go into such costly wars as a mechanism to resolve political disputes is relevant not only to understand the political failures affecting developing countries, but also to formulate effective policy proposals to deal with them.

In this section we first discuss the more recent micro-econometric evidence on the economic costs of conflict, with an eye towards detailing the causal effects of conflicts, the mechanisms through which conflict affects welfare, and how different people are differentially affected by conflict. We then move on to the literature on why conflict and rebellions happen. We briefly discuss some theories of conflict, and show the recent evidence on them. Finally, we review the literature on how government policy can be used to reduce conflict, to help with post conflict reconstruction and avoid a fall back into conflict. We conclude this section discussing potential avenues for future policy-relevant research.

It is worth noting that many other reviews of the literature on conflict have been written recently (see, for instance, Blattman and Miguel (2010) for the empirical literature and Jackson and Morelli (2011) for the theoretical literature). With this in mind, we focus our review mostly on the more recent empirical literature not covered in these past reviews.

3.3.1 ECONOMIC EFFECTS OF CONFLICT

While there is some macroeconomic evidence on the costs of conflict, this macroeconomic evidence faces three difficulties: first, it is hard to differentiate, for much of the literature, between the effect of conflict over economic variables and the effect of these economic variables over conflict. Second, it is hard to look at the channels through which conflict is costly by just using macroeconomic variables. Finally, the macroeconomic evidence omits the considerable heterogeneity in the economic consequences of conflict, be it due to the fact that much of the suffering from conflict is borne by targets of violence, and from the fact that depending on the economic channels through which conflict affects welfare, different individuals will be differentially affected by conflict.

To avoid these issues, we focus here on the microeconomic evidence on the effects of conflict. First, we cover the effects of conflict over households, discussing (i) how

[30] For a few references looking at cross-country datasets, see Collier (1999), Collier et al.(2003) and Imai and Weinstein (2000). For a case study for the Basque country, see Abadie and Gardeazabal (2003).

households cope with conflict, (ii) the consequences of displacement due to conflict, (iii) the effects of conflict on human capital – more precisely, on physical and psychological health and education, and (iv) the effects of conflict on individuals' risk attitudes, time preferences, and political choices. After this, we move to the impact of conflict on firms' performance. Finally, we discuss the longer-term legacy of conflict.

(A) The impact of conflict over households and individuals

The evaluation of the impact of conflict over household-level variables – such as education, consumption, income and others – faces considerable difficulties. The first is that it is hard to survey households during conflict. Hence, studies have to rely on recall questionnaires, often done several years after the occurrence of conflict, and it is difficult to assess to what extent recall bias affects the reports of the experiences households faced during conflict.

A second difficulty emerges when linking household level variables to experiences of conflict. While one could use survey-based measures of experiences of conflict, it is not clear whether experiencing conflict in fact affects the variable of interest or whether experiencing lower consumption, lower income and lower educational levels affects perceptions of the extent to which a household experienced conflict. An alternative is to link a household's place of residence to more aggregate measures of local conflict incidence, and see the impact of living in areas more affected by conflict versus being in areas less affected by conflict. This, however, might come with the problem that the households who stayed in an area affected by conflict might be the ones who either were less vulnerable to the consequences of conflict, or the ones who were less able to avoid the consequences of conflict. Therefore we do not know to what extent these households are representative of the population of an area prior to conflict, and whether they in fact reflect the true damage faced by this population.

A third difficulty is that even if the previous two issues are solved, we do not know whether the observed levels of income, education, consumption or any other variable under study happened as a consequence of conflict, or whether conflicting groups targeted areas with households more prone to face the consequences of conflict. Finally, a fourth difficulty is that when it comes to the effects of conflict over wages, income, consumption and other variables, most likely, households who were not targets of violence also face effects of conflict through general equilibrium effects.

While all these issues present considerable challenges for the study of household level consequences of conflict, recent research has been able to overcome some of these difficulties. Overall, this research shows that households affected by conflict experienced large drops in consumption and income during conflict, that children in these areas became less educated and less healthy, displaced individuals considerably affected labour markets and worsened public health outcomes, and finally, individuals became more willing to take risks, less patient, and changed their political attitudes. In addition, current research shows that differently targeted groups were affected differentially, thus highlighting how the burden of conflict is heterogeneous even within one country. The next few paragraphs detail these effects, discussing some challenges still unsolved and highlighting avenues for future research.

(B) Effects of conflict over human capital

By now, there is a large literature discussing the effects of exposure to conflict over human capital. While the difficulties above are relevant to answer the questions here, this literature has mostly been able to credibly uncover some impacts of conflict over human capital. For example, Chamarbagwala and Morán (2011) use the 2002 Census data from Guatemala and look at the effect of the civil war, which lasted from 1960 to 1996, over educational attainment.[31] The authors compare the educational attainment of cohorts born between 1921-1940 (unaffected by the civil conflict in Guatemala during their schooling age) with the attainment of younger cohorts, born in regions more and less affected by violence. The authors estimate that the increase in educational attainment for the post-1940 cohorts (relative to older cohorts) of rural Mayan in regions more affected by conflict is 3-30% lower than the increase in educational attainment of post 1940 cohorts of rural Mayans in regions less affected by conflict. Other groups of Guatemalans were not significantly affected, however.

Similar methodologies have also been used to assess the impact of conflict over child health. Akresh, Bhalotra, Leone and Osili (2012) show that, in the context of the Nigerian Biafra War, cohorts exposed to war during childhood have significantly lower stature than cohorts exposed to war during adulthood, and that this effect is higher for ethnicities more exposed to conflict. Qualitatively similar results are obtained for the health effects of conflict in the contexts of the Ethiopian-Eritrean war and the conflict in Côte d'Ivoire (see respectively Akresh, Lucchetti and Thirumurthy (2012) and Minoiu and Shemyakina (2012)). Further effects of in-utero exposure to conflict over infant health have been found by Mansour and Rees (2012), who estimate that exposure to Israeli attacks in the West Bank and the Gaza Strip increase the chances of the infant being born with less than 2.5kg for mothers who are either highly educated or refugees; and by Camacho (2008), who finds evidence from Vital Statistics records in Colombia indicating that exposure to conflict two trimesters before birth increases the probability of low birth weight.

Finally, other methodologies have been used to go beyond years of schooling and standardised measures of health. Blattman and Annan (2010) track down individuals from nationally representative surveys individuals, and survey pre-conflict family composition together with human capital and health outcomes. The authors show that having been abducted as a child soldier reduces education by 10% of the average non-abductee

[31] Similar methodologies were used in Shemyakina (2011) and León (2012) for the effect of conflict over human capital in Tajikistan and Peru, respectively.

education, reduces literacy by 15 percentage points, reduces significantly skill intensive labour and reduces wages by approximately 33%. Furthermore, being abducted as a child significantly increases the probability of psychological distress and the probability of hostile attitudes. Surprisingly, it does not affect in a statistically significant manner the probability of involvement in fights nor of feeling accepted by the community.

Household-level coping with conflict: When studying the effects of conflict over consumption, income and overall economic coping with conflict, empirical difficulties are particularly severe. Two studies overcoming some of these issues are Dupas and Robinson (2010, 2012), who use data on small street vendors, shop keepers and sex workers in Kenya who (i) live in an area afflicted by the 2007 post-election conflict and (ii) for whom they have both pre- and post-conflict data.[32] The authors find strong negative effects of conflict over income and expenditures of all groups, especially for sex-workers, who face stronger economic hardship and who cope with it by engaging more in unprotected sex. While these studies present a considerable improvement on the quality of data collection and dealing with sample selection biases, it is hard to distinguish the effects of conflict from seasonality in income and expenditures, and it is also hard to know whether these effects generalise to other groups of people.

Displacement and segregation in conflict areas: Conflicts generate considerable displacement of populations and segregation, which suggests that one effect of conflict is to affect labour markets in neighbouring areas. While a few papers make useful first evaluations of these effects (see Kondylis (2010) and Di Maio and Nandi (2013)), we need more research to solve methodological challenges: first, conflict should have effects over neighbouring areas through trade effects and through other channels that could equally have affected wages and employment. Second, it is hard to think of appropriate control groups for the displaced populations, since individuals who were not displaced by conflict are inherently different from the ones displaced, and since displacement into neighbouring areas should have effects over individuals living in these neighbouring areas prior to conflict.

Besides labour market effects, displacement of populations can generate public health concerns, overcrowd public services in neighbouring areas and create new clashes. While there is not a full understanding of all of these effects, Montalvo and Reynal-Querol (2007) discuss that non-immune refugees fleeing to rural malaria prone areas are likely to get infected by malaria and increase malaria incidence. Consistently with this, the authors show that increases in the number of refugees in a tropical country – where malaria is more prevalent – increases cases of malaria, while not increasing cases in non-tropical destination countries. This effect is robust to looking just at variation in number of refugees

[32] One further evaluation of the effect of conflict over household coping is provided by Verpooten (2009), who discusses from a recall survey whether households use cattle sales as a mechanism of insurance against the Rwandan genocide.

of a receiving country due to distance from other refugee-sending countries and due to conflict onset in refugee-sending countries.

Preferences and political behaviour: A few recent studies indicate that conflict further changes the preferences of individuals most affected by violence. Voors et al. (2012) reports that exposure to conflict in Burundi, which seems to have targeted different communities "almost at random." increases experimental measures of altruism within the community, of risk-loving behaviour, of impatience and reduces concern for the future. Somewhat consistently with this, individuals in communities more exposed to conflict seem to participate more often in community activities, have higher social capital, grow more cash crops and spend less in farm improvements. Callen et al. (2013) look at risk preferences in Afghanistan, and how these are affected by randomly provided cues that trigger fear, how they correlate with data on local exposure to violence, and how the cues of fear interact with exposure to violence. The authors show that individuals who receive the cues of fear become more risk tolerant, and that this effect is focused on the regions where individuals are most exposed to violence. While this paper adds more credible identification by randomly providing cues of fear, they face issues with non-random sample selection.

Besides affecting preferences, a few studies found surprising effects of conflict over political behaviour. Bellows and Miguel (2009) provide evidence based on a nationally representative survey that political participation increased in response to exposure to conflict in Sierra Leone: households more targeted by conflict were more likely to be active in community meetings, voting and political participation more generally than households not targeted by conflict. Blattman (2009) studies the effect of abduction into the LRA in Uganda, also finding evidence of increased political participation in response to exposure to conflict. The author argues that abduction was largely random, but yet, having faced abduction increases voting by 27%, the chances of being a community mobilizer by 106%, the chances of being a peace group member by 92%, while not influencing in a statistically significant manner the chances of (i) being involved in fights, (ii) being classified as having anti-social behaviour, (iii) threatening others with physical violence. The effects are strongest for witnesses of violence as opposed to victims or perpetrators of violence. While it is surprising to see that conflict affects political participation in this way, and that preferences are affected by conflict, it is hard to evaluate the extent to which these findings are generalizable and interpreted as causal, especially given the lack of theories explaining why should conflict have these (or alternative) effects over political action and preferences.

(C) Conflict and firm performance

Similar issues make it hard to study the effect of conflict over firm performance: many times, firms shut down during conflict, and it is hard to say the extent to which these firms were affected by conflict. Additionally, it is hard to distinguish between the effects of conflict and the effects of other variables affecting both conflict and firm performance.

Finally, even when there is available data, there is an issue of whether that sample is representative of more violent conflicts, for which a clean data collection process would have been impossible.

One group of studies overcoming these methodological issues looks at firms listed in stock markets and affected by conflict, checking whether their stock market returns react in the few days after news about continuation or cessation of conflict. In this line, Abadie and Gardeazabal (2003) show evidence that Basque firms face positive abnormal returns after positive news about the truce between 1998-99, and negative returns when there are news that the truce ended. Similar methodology is used by Guidolin and La Ferrara (2007) to show that some firms win with conflict: the authors show that firms operating in Angola's diamond industry faced negative abnormal returns in response to the death of the rebel leader Jonas Savimbi, i.e. when the prospects for peace became imminent. Della Vigna and La Ferrara (2010) also use the event study methodology to detect which companies may stand to gain from conflict, more precisely from violating embargoes. They find that arms producing companies in more corrupt countries earn higher abnormal returns in response to increases in conflict intensity in countries under embargo.

A few other studies discuss the impact of conflict for non-stock market listed firms. Ksoll, Macchiavello and Morjaria (2013) look at a difference-in-difference estimate of the impact of the 2007 post-election conflict in Kenya on flower exports, showing evidence that conflict significantly decreases flower exports in Kenya, and that small firms are more affected than large firms and firms with individual contracts with importers. Firms also face higher costs of bringing workers to the job and more worker absence. Hjort (2013) looks at a quasi-random assignment of workers to teams of co-ethnic workers versus teams of non-co-ethnic workers in a flower production farm in Kenya. While non-co-ethnic production chains typically perform worse than co-ethnic production chains, this worsens during conflict, with workers increasing their discrimination against non-co-ethnic team members.

In summary, the literature on short-term effects of conflict indicates there are economic costs of conflict, as pointed by the macroeconomic evidence. At the microeconomic level, there is some further evidence that conflict affects welfare of households who cannot insure against conflict shocks, and while affecting most firms negatively, some firms do seem to profit from conflict.

(D) The legacy of conflict

The evidence on long run effects of conflict, on the other hand, is more ambiguous. On the side claiming small long-term impact of conflict, Cerra and Saxena (2008) indicate that civil wars do not seem to have a statistically significant lasting effect in most subsamples of countries analysed (although the effects are imprecisely estimated). Davis and Weinstein (2003) show that population size in Japan during 1947-1960 recovered quickly after WWII, with regions with more property damage and more deaths during war being the ones whose populations grew faster. Miguel and Roland (2011) compare regions close to the North and South Vietnam border – which were more intensely bombed during the Vietnam War – and further from the border, showing they have similar poverty rates, household expenditures, literacy rates, and higher access to electricity and higher flow of immigrants a quarter of a century later.

On the side claiming larger long term effects of conflict, Besley and Reynal-Querol (2012) show that, in Africa, regions that had higher exposure to conflict between 1400-1700 face today lower levels of between-group trust, higher sense of ethnic identity and weaker sense of national identity. Moreover, within given countries, regions closer to historical conflict sites also face higher incidence of conflict today. Dell (2012) shows that municipalities that faced more severe droughts during the Mexican revolution in the 1910's had more intense insurgency activity by then; and as a consequence, these municipalities got higher fractions of their surface areas redistributed by agrarian reform. In the 2000's, these municipalities were significantly more rural, had lower wages, lower access to water and electricity, and had lower turnover of politicians. Acemoglu, Hassan and Robinson (2011) show evidence that cities in Russia that faced more deportation and killing of Jews during WWII have lower GDP per capita and considerably smaller middle class. This evidence indicates that long-term effects of conflict are heterogeneous. Potentially, this is due to different post-conflict reconstruction programmes, which are more effective in some areas than in others. Alternatively, evidence such as Dell (2012) and Acemoglu, Hassan and Robinson (2011) suggest that the specificities of different political contexts considerably shape the long-term recovery from conflict. There is, however, not much in the literature describing what it is about the political context that shapes the recovery from conflict.

3.3.2 THE CAUSES OF CIVIL WARS

(A) Theories of civil wars

Given the high cost of wars, it is interesting to get a better understanding of why different countries go into civil wars, since this should help us in designing policies to avoid and recover from conflict. Early results by Collier et al. (2003) and Fearon and Laitin (2003) suggested that poorer countries face more rebellions. Collier (2003) suggests this might be due to economic motives given by the opportunity costs of rebellion: in poor countries, the losses associated with rebellion – forgone labour market wages, farm output, and other things alike – are smaller, which makes people more willing to rebel. Fearon and Laitin (2003) suggest that in poor countries, insurgencies are easier to sustain, given the higher difficulty for the state to reach areas far away from the centre and repress rebellion.

When formalised, these theories suggest a few alternative testable predictions: first, while negative temporary income shocks should increase conflict, permanent income shocks will not have the same effect (see Chassang and Padró I Miquel (2009)). Second, shocks to different economic sectors and that affect the distribution of income differently – which might affect differently opportunity costs of rebelling and the prizes associated with rebellion through greed motives – might affect conflict differently (see Dal Bó and Dal Bó (2011)). Third, rebels will typically be the ones who are economically worse off, since they are the ones with lowest opportunity costs of rebellion.

Testing these theories, however, is not easy. First, it is hard to obtain data on whether given individuals rebel or not, as this type of information is sensitive. Given that the theories cited above concern these type of variations of individuals' opportunity costs of conflict, and individuals' prizes for going into conflict, this presents a first considerable hurdle in developing tests of these theories. A second difficulty when dealing with individual data concerns issues of selective migration and death – given that participants of war might be harder to track, and individuals who can be more easily tracked are most likely not representative of rebels. Third, it is hard to distinguish between the effect of income – and other individual characteristics – on conflict from the effect of conflict on these individual characteristics. Still, a large empirical literature has been able to overcome some of these obstacles using different methodologies.

(B) Income shocks and conflict

The first credible analysis plausibly identifying causal effects of income over conflict was by Miguel, Sergenti and Satyanath (2004), who use annual variation in income per capita driven by variation in rainfall to identify the causal impact of income over conflict in a sample of 41 African countries (arguably the countries for whom rainfall should matter for income) between 1981-1999. The authors find that decreasing per capita income growth by 5 percentage points increases the probability of incidence of civil wars by 12 percentage points in the next year – a 45% increase over average levels of conflict. Bai and Kung (2011) examine the relationship between recorded droughts and levee breaches (as proxies for excess rain) and historic conflict between Chinese sedentary communities and nomadic communities to its north, using historical records between 220 B.C.-1839 A.D. and time series variation. That being said, other papers found different impacts of per capita income over conflict using different sources of variation in income: Bazzi and Blattman (2013) use within country variation in the prices of its exported commodities to estimate the impact of "economic shocks" over conflict. They further separate the effects of shocks to different commodities, according to the likelihood that they accrue to households or to the government. The authors find no robust effect of export commodity prices over conflict onset, and find some evidence, depending on measurement and model specification, that rising commodity prices reduce length and intensity of wars.

These effects suggest that either the identification strategies are not valid – because rainfall and commodity prices could affect, in addition to average income, the relative income between agricultural and urban workers, between agricultural workers and farmers, and many other variables that should have impacts over conflict –, or that effects of income over conflict are heterogeneous, as suggested by the theories discussed above.

Consequently, it is hard to use this evidence to discern between different theories of conflict and the relevant policy implications to reduce conflict onset. In view of this, the literature has turned to estimating the impacts of economic shocks over conflict on a more microeconomic scale, allowing for better understanding of the context and the particular channels through which rainfall and commodity price shocks could affect conflict. The overall conclusion from the micro-econometric evidence confirms that temporary income shocks have heterogeneous effects over conflict.

On these lines, Harari and La Ferrara (2013) estimate the relationship between weather shocks and local conflict events using highly disaggregated data for Africa (specifically, they use a gridded dataset of 100kmx100km cells). They find that only shocks occurring during the growing season of the locally grown crops have an impact on conflict, consistent with the interpretation that the effect occurs through shocks to agricultural incomes. They also uncover significant spatial and temporal spillovers in conflict. Hidalgo et al.(2010) look at the impact of rainfall shocks over land conflicts and land invasions in Brazil, finding the result that (i) extreme rainfall reduces agricultural output and increases conflict, (ii) that rainfall seems to be uncorrelated with measures of land inequality in Brazil, which allows them to show more credibly that (iii) the effect of extreme rainfall over conflict is larger for municipalities with more unequal land distribution. These results are consistent with the opportunity costs theories and with theories of conflict being induced by inequality. On the other hand, Angrist and Kugler (2008) look at the effects of a crackdown on air transportation of coca paste to Colombia, which anecdotal evidence suggests having increased coca paste prices in Colombia. While they find limited impacts of the increase in coca prices over occupational choice and income in coca growing regions[33] they find an increase in homicides of people of all ages in rural regions, which is not accompanied by increases in disease death rates or by increased death rates for urban regions. If we take these homicides to be due to conflict deaths, this story is hard to reconcile with opportunity cost effects of coca prices and easier to reconcile with resource extraction effects and other stories of conflict. Dube and Vargas (2013) is probably the paper providing the most explicit evidence of distinct economic shocks having differential effects over conflict even within a given context. The authors show that in Colombia, increases in coffee prices increase wages, do not increase municipalities' oil revenues and reduce insurgent activity in municipalities that produce more coffee vis-à-vis municipalities that produce less coffee, consistently with opportunity costs stories. In the opposite direction, increases in oil prices do not affect wages in a significant way, increase municipalities' oil revenues and increase only paramilitary activity in municipalities that produce more oil versus municipalities

[33] They find no evidence of increases in self-employment, working hours or wages, finding increases in self-employment income conditional on being self-employed, and in teenage boys' work and income.

producing less oil, while not increasing guerrilla activities, in a way consistent with resource extraction stories.[34]

This literature suggests that the impacts of income shocks over conflict are in fact heterogeneous: income shocks to different economic sectors have different impacts over conflict. The basic theory indicating opportunity costs of conflict and extraction/greed motives for conflict seem to be consistent with the current empirical findings. Despite this, it has been hard to confirm other parts of the theory suggesting that the impact of permanent income shocks are different from the impacts of temporary income shocks, or that income shocks for richer people have different impacts from income shocks to poorer people. Recent trends that (i) collect more transparent information on individual ideologies and political mobilisation, such as in Lyall, Blair and Imai (2013), coupled with (ii) further efforts of analysing quasi-experimental policies that vary income at the individual level, such as in Crost, Felter and Johnston (2012) are likely to considerably improve our understanding of the economic drivers of conflict and the policy implications coming out of them.

(C) What rebels earn from insurgency

While this is a vastly under-researched topic for the previously mentioned reasons, a few new studies discuss some evidence about the motivations of individuals being recruited to violence and individual’s pay during insurgency. Bahney et al.(2013) collect intelligence data on wages paid by Al-Qaida Iraq. Officially, payments are flat and increasing in family size and are still paid after an insurgent dies; but still, surprisingly low even for low-skilled occupations in Iraq. Unofficially, wages vary between regions, but not according to exposure to violence, suggesting either that rebels are recruited due to ideological reasons, coercive reasons, or that they provide strong enough life insurance to recruit people. Beber and Blattman (2013) discuss some evidence on why the LRA in Uganda recruited child abductees instead of voluntary adults. The authors show evidence consistent with the idea that while older individuals can be more skilled, children are more easily indoctrinated and exit less often, which might make recruitment by the LRA cheaper. To a large extent, this is consistent with opportunity costs explanations of rebellions, whereby individuals take into account their earnings with insurgency and rebel groups try to “hire” the “cheapest” groups of individuals (weighted, of course, by their ability in performing rebel activities).

(D) Why individuals rebel and support rebel movements

A second prediction from the theory suggests that the relatively worse off individuals will typically be the ones rebelling, given they have lower opportunity costs of doing so. This

[34] The authors argue that this is not due to the fact that paramilitary groups are often associated with the government, but instead, that this reflects the fact that oil producing regions in general do not have presence of guerrilla groups. They do so by showing that positive shocks to gold and coal prices have a positive effect over guerrilla violence, since guerrillas are present in regions producing gold and coal.

hypothesis is particularly sensitive to the first two concerns of difficulties of getting data, given that individuals might be unwilling to report their participation into civil conflict, and there are difficulties associated with selective migration and death of rebels.

One study dealing with the first issue is Lyall, Blair and Imai (2013), who run survey experiments in Afghanistan asking a random set of individuals whether they support policies defended by the Taliban/the foreign forces, and comparing this to answers from another subset of individuals asked about the same policy issues, but without linking these policies to any of the movements. This tracks down the extent to which individuals agree with the political factions or not. The authors show that overall support to foreign forces correlates positively with Taliban violence and correlates negatively with foreign forces' violence. One methodological contribution dealing with the second difficulty of tracking down rebels is Verwimp (2005) where the author tracks down individuals in Rwanda who answered a pre-genocide survey, and re-surveys them to know their participation in the genocide. Perpetrators were more educated than the average, and worked more off-farms. Typically, households with a member involved in the genocide had more members and higher income, though there are both landless and wealthier landholders who participated in the genocide. The author interprets the results as rich perpetrators trying to protect their property and poor perpetrators trying to obtain property.[35] Some of these results also resonate with evidence about Palestinian terrorists in Krueger and Maleckova (2003).

While these results may not be representative of all rebellions, and while there are unsolved issues when trying to track rebels and victims, the above evidence suggests that the individuals who join rebellion are not necessarily those most worse-off. Instead, the explanations here suggest that individuals' support for different factions evolves with experiences of conflict. If this can evolve through time, there may be space for public policy to affect support for the government. Second, individuals rebelling have some similarities with the individuals who, in other countries, are more politically active (see for instance, Milligan, Moretti and Oreopoulos (2004) and Campante and Chor (2012) for the effects of education on political participation in the US, UK and in the world). This suggests that there might be some policy relevance of adding to the theories of rebellion above issues of coordination and organisation for collective action. Evidence on this might bring new policy insights.

(E) Organisation and coordination of rebel groups

Fafchamps and Vicente (2013) discuss evidence on the role of social networks in coordinating individuals who supported the opposition in Nigeria, but who were intimidated by violence. The authors study a randomised campaign that encouraged voting against

[35] It should be noted, however, that these results are not comparable with the results on income shocks, since the author's measure of income is from 5 years before the genocide. Most likely, the evidence relates more to permanent differences in income across perpetrators rather than temporary income shocks.

"pro-violence" politicians. The authors find that the treatment reduced newspaper reports of violence, perceptions of violence, and this effect is stronger for people who were both targeted by the campaign and who had friends targeted by the campaign, but spreading to individuals not targeted by the campaign. This result suggests that coordination of the opposition did reduce violence and intimidation. Related to this result, Yanagizawa-Drott (2012) finds evidence that, in Rwanda, increased access to radio stations driven by geographic characteristics led more people to participate in the genocide, suggesting the role of information to also coordinate violent collective action.

A final issue involves the institutions and mechanisms that allow people to coordinate, which some current evidence suggests is important to determine why different conflicts see different forms of violence and rent extraction. Aimone, Iannaccone, Makowsky and Rubin (2013) study in a laboratory experiment the role of unproductive costs for group formation, indicating that these costs help in excluding free-riders and higher group involvement as a means of escaping the unproductive costs individuals engaged in. Humphreys and Weinstein (2006) suggest that groups with lower coercive capacity, lower capacity to provide rewards and lower capacity to monitor its rebels are the ones that most allow for violence against civilians. De La Sierra (2013) studies rebel movements in 140 villages in eastern Congo (DRC). After an international shock to international prices of Coltan – an abundant mineral resource in eastern Congo DRC – villages that were richer in Coltan started facing more attempts of conquest by rebels, and the new rebels became stationary in the village. These rebels provide protection to stimulate economic activity, and tax more accordingly to optimal taxation; when their time horizon shortens, instead, they start relying more on expropriation.

3.3.3 CONFLICT AND GOVERNMENT POLICY

A recent and rapidly expanding literature has been analysing the effects of government policy on conflict, often inspired by the findings above. The evidence above suggests, first of all, that negative income shocks to individuals might increase their willingness to join armed groups. This suggests that policies of social insurance – including anti-poverty policies, if the economically worse-off are more likely to join armed groups – should reduce conflict. Second, the evidence above suggests that individuals' experiences of government violence reduce their support for the government, which might lead one to ask whether more positive experiences with the government might "buy their hearts and minds" and reduce support for rebel groups – something coherent with recent American military doctrine. Third, aid-donors, particularly USAID, has pointed out that an important factor in resurgence of conflict has to do with individual-level private disputes exploding into larger-scale conflicts, which suggests that institutions that help conflict resolution at a micro-level might be effective at reducing conflict. Finally, military aid and security enforcement might be an indispensable tool in dealing with conflict. In this subsection, we review the literature on the impacts of these different policies on conflict.

The key difficulties in analysing such a question are that, first of all, conflict might induce government policy, so that it is hard to distinguish between the causal impact of policy over wars and the impact of conflict incidence over policy targeting. Second of all, governments typically use many simultaneous policies aimed at reducing conflict intensity, and it is hard to observe all the policies a government might be implementing in a given location and to differentiate between the effects of these alternative policies. In view of these difficulties, a recent literature has advanced in credibly evaluating the impacts of government policy.

Social insurance: Crost, Felter and Johnston (2012) analyse a field experiment in the Philippines where 65 villages were randomly selected to receive conditional cash transfers in 2009, while 65 other villages were to have the programme implementation delayed until 2010. The authors estimate that the programme considerably reduces violence in treatment villages versus control villages, and that the programme also reduces (but to a much smaller extent) violence in villages 5-10 miles away from treatment villages.[36] Fetzer (2013) analyses whether a rural employment policy in India, NREGA, moderates the impact of rainfall shocks over conflict, by giving citizens the right to work in public projects for 100 days and allowing them to not face as much a decrease in income due to droughts. The results do show that NREGA indeed reduces the impact of rainfall shocks over conflict.

(A) Aid provision policies

Berman, Shapiro and Felter (2011) discuss the effects of a programme of reconstruction aid under the authority of military personnel in Iraq over attacks against the coalition forces and the government. The authors show that while regions with more attacks against the government and the coalition forces are the ones receiving more foreign aid, this relationship reverses once the comparison is made only between regions with similar observable characteristics. This is consistent with the fact that the government targets aid towards regions with more conflict, and with a negative effect of aid over conflict. The authors further show that smaller aid projects, which are less bureaucratic and can be more responsive to local needs, are typically more effective at reducing violence against the government and coalition forces, while other aid policies are not effective at doing so, suggesting that aid improves the perception of the quality of government and "buys hearts and minds".

Despite this, there is evidence from other parts of the world in which aid was ineffective at reducing conflict. Crost, Felter and Johnston (2013) analyse the impact on conflict of a community-driven development (CDD) project in the Philippines. To do so, they exploit the fact that the allocation of the project was based on a poverty index, and municipalities that had measured poverty below a threshold were eligible for the programme. After the programme was fully implemented, municipalities just below the poverty threshold were

[36] Relatedly, Chioda, de Mello and Soares (2012) estimate the impact of Bolsa Família – the main conditional cash transfer program in Brazil – over urban crime to be negative.

similar to municipalities just above the threshold in terms of conflict, suggesting that once the programme was implemented, the development project had no effect over conflict intensity. Similarly, Beath, Christia and Enikolopov (2012) study the impact on conflict of a field experiment randomly allocating CDD projects to villages in Afghanistan. The authors find that the implementation of these projects improves perceptions of economic environment, the public perceptions of the quality of government, and perceptions of security for both men and women. Despite this, the authors find no effect over more objective measures of incidence of violence.

While this evidence suggests that the effect of aid on conflict is heterogeneous, it is still hard to draw final conclusions. First of all, we do not observe these villages for longer horizons, which preclude us from evaluating longer-term effects. Second, the small availability of theories about how aid should affect conflict makes it harder to evaluate why the effect of aid over conflict could be heterogeneous, and makes it difficult to pose hypotheses to be tested about such heterogeneity. More research is needed on this topic so that we are better able to understand the causal links between aid and conflict.

(B) Conflict resolution policies

Recent studies have also investigated the effects of institutions aimed at easing conflict resolution at the individual level, since many aid institutions report that private disputes between individuals has been one key mechanism of conflict resurgence. Blattman, Hartman and Blair (2013) discuss a field experiment in Liberia providing training on alternative dispute resolution mechanisms for property disputes to 15% (non-random) of individuals in 86 out of 246 randomly selected towns. The intervention considerably improves rates of land dispute resolution and lowers property destruction, besides creating positive spillovers to non-trained individuals. Despite this, the project has the unintended consequence of increasing peaceful strikes, disputes involving physical violence and youth-elderly disputes. Sandefur and Siddiqi (2013) analyse a para-legal program in Liberia that randomises a pro bono timely legal aid among different individuals who self-select as clients, allowing the control group to receive para-legal help only with delay, due to limited para-legal time. The authors show evidence that receiving the legal aid increases by 34.8% the index of perceptions that the case was solved in a fair way, increased perceptions of being better off by 26.7%, and increased the perceptions that the relationship with the other party was better by 23.3%.

(C) Security provision, strategies for security and repression

Typically, a function of the state is to provide security and prevent conflict by effectively providing police forces and a strong military that can guarantee the state’s monopoly on violence. Hence, it makes sense to ask whether policies of security provision are effective at reducing and preventing conflict. While in many contexts, repression is a political decision endogenously resulting from the process leading to conflict,[37] in many other contexts, the value of security provision as a policy measure to reduce conflict is discussed. The fact that we typically do not know when repression and security provision are motivated by politics or by welfare considerations, and that security provision reacts to conflict makes it hard to observe the causal effect of security over conflict.

The research credibly estimating the impacts of the "amount" of security provision over conflict has ambiguous conclusions. Berman, Felter, Shapiro and Troland (2013) and Berman, Felter and Shapiro (2011) suggest that security provision is complementary to the provision of public goods and aid, and that it is effective in reducing conflict. On the other hand, Dube and Naidu (2012) analyze the impact of the evolution of American military aid over violence in Colombia, taking advantage of the fact that this aid is allocated through long standing Colombian Army military bases that precede the period of analysis. The authors find that in cities close to military bases, paramilitary violence increases with American aid more than it does in cities further away from military bases, especially when close to contested election periods. This increase in paramilitary violence is not accompanied by a decrease in guerrilla violence.

One issue, however, might be that the type of military presence for security provision and the way they provide security has different effects over conflict. In theory, if repression is responsive to insurgent activity and well-targeted at insurgents, it could be that repression decreases the incidence and intensity of conflict through a deterrent effect. On the other hand, if repression activities are not well targeted and attack both insurgents and non-insurgents, repression should increase conflict, especially if by rebelling, insurgents expect to change the course of politics. Again, the endogenous targeting of these policies makes it hard to evaluate these claims. Furthermore, the fact that we do not know whether conflict should react immediately to repression or with delay, or whether the reaction is geographically concentrated or not, further imposes challenges on strategies to empirically answer these questions.

A few of the current estimates of the impact of military counterinsurgency and counterterrorism policies on locals' insurgent behaviour are the following: Kocher, Pepinsky and Kalyvas (2011) estimate that in Vietnam, hamlets that were bombed more heavily between

July and December 1969 had higher probability of turning into Viet Cong's insurgent control, given observables and past hamlet control. Similarly, Benmelech, Berrebi and Klor (2010) estimate that increasing the number of housing demolitions of past suicide terrorists in a Palestinian city is associated with a decrease in the number of suicide terrorists coming from the city, while increasing the number of "preventive" housing demolitions in a city significantly increases suicide terrorism from that city. Jaeger and Paserman (2008) estimate

[37] See Besley and Persson (2011).

the time series reaction function of Israeli and Palestinian attacks to own violence and to opponents' violence, indicating that while Israel reacts to Palestinian attacks by increasing Palestinian casualties, Palestinian movements seem to not react to Israeli attacks by increasing terrorist attacks. While each of these papers contributes to our knowledge of the impacts of different forms of repression, there is still need for further research to tackle issues of identification of causal impacts of repression.

3.3.4 CONFLICT: SUMMARY OF EVIDENCE AND MISSING LINKS

The research effort into understanding the causes and consequences of conflict faces three key challenges. First, researchers need to obtain reliable measures of the variables of interest. Second, researchers need to be careful about the fact that individuals living in an area that experienced conflict in the past are not representative of the individuals who faced the conflict and had to undertake decisions in response to conflict. Third, researchers need to credibly separate the impact of conflict over the variable of interest from the impact of third variables influencing both conflict and the variable of interest. While all these challenges pose nontrivial difficulties, current research has advanced considerably in understanding the economic impacts of conflict, some of its causes and potential policy measures to reduce conflict.

That said, we are still far from a full understanding of the causes and consequences of conflict. While, as pointed before, certain topics previously covered in the empirical literature do need more research, we focus here on pointing to topics that are still relatively uncovered. First of all, we know relatively little about why long-term effects of conflict are so heterogeneous, and even more, why they depend so much on accidental events in history, such as pointed by Dell (2012) and Acemoglu, Hassan and Robinson (2012). A better understanding of the mechanisms of such history dependence leading to recovery or not from conflict seems to be not only policy relevant, but also related to bigger questions in development economics on why some places grow much richer than others.

A second topic largely understudied in the literature about conflict has to do with rebel group formation, the boundaries of groups, and what leads certain groups to ally themselves or to fight themselves. As an anecdote, during the late 1980's and 1990's in Afghanistan, there were years in which conflict seemed to involve two groups – the Taliban versus the Northern Alliance – and there were years in which conflict involved seven different groups fighting for centralised power. Understanding when groups ally between themselves or fight separately is relevant not only to understand how groups organise to go into conflict, but also to understand the origins of the monopoly of violence by the state.

A third topic is the need to create more links between the theoretical literature on conflict and the empirical literature. A large theoretical literature in conflict is concerned with the question of why conflicting groups do not try to bargain and to compromise in order to avoid costly conflicts. For them not to bargain, there must be a bargaining failure preventing effective peace deals. While a large literature discusses potential effects of different forms of bargaining failures (for two reviews, see Fearon (1995) and Jackson and Morelli (2011)), there are no tests of these theories.

4. Conclusion: The Credibility Revolution in State Effectiveness Research

In recent years, economics has experienced a "credibility revolution" (Angrist and Pischke 2010) calling for explicit and rigorous identification strategies in empirical research.[38] Nowhere has this revolution been more marked than in research on the effectiveness of the state. As this review has made clear there are two main reasons for this. The first is the advent of new data collection methods that allow for rigorous testing of theories about what makes the state effective. The second is that there is greater willingness of governments to collaborate with researchers to find answers to policy questions that are of mutual interest. As a result research on the state has moved from a field of abstract theory and descriptive evidence where there was little interest in results outside of academia to one where knowledge is cogenerated by researchers and policy makers and feeds directly into the policy process as well as into academic journals.

On the methodology front randomised control trials have become an effective means to generate exogenous variation that allows the identification of causal relationships. Their popularity signals a move away from cross-country comparisons, for which causal interpretation is weaker. The key limitation of randomised control trials, however, is that they typically sacrifice generalizability to maintain control and precision. For instance, several of the existing experiments on teacher incentives have been run on a handful of NGO operated schools. Establishing links between small randomised control trials and complex, macroeconomic processes like economic growth is often both difficult and tenuous. Furthermore, an array of natural experiments has been studied to unveil the incentives of politicians to be in office and how those incentives align with those of the citizens. While much has been learnt from these small-scale experiments, research in state effectiveness would benefit from larger scale studies that deliver generalizable insight.

One of the most exciting developments in this regard is the recent surge in collaboration between researchers and developing country governments that allow research to be embedded in the policy implementation phase so that policy design encompasses evaluation design. Examples of this are Muralidharan's collaboration with the government of Andhra Pradesh to evaluate teachers incentives, Ashraf and Bandiera's collaboration with the government of Zambia to evaluate recruitment and motivation strategies for health workers and Khan, Khwaja and Olken's collaboration with the government of Punjab to evaluate incentives for tax collectors. There are two key advantages of these collaborations relative to the state effectiveness research that came before. The first is that they can look at larger populations of agents thus making results obtained more generalizable. The

[38] See also Slemrod and Weber (2011).

second is that ideas that emanate from cogenerated research are more likely to be abopted and at large scale.

This notwithstanding, it is sometimes difficult to employ randomised control trials to estimate the effect of a treatment on the whole population. For example, it appears challenging from a political and an ethical perspective to randomise marginal tax rates on labour supply in order to uncover its elasticity. To overcome this shortcoming, public finance research in recent years has relied extensively on quasi-experimental variation created through policy variables. Kleven and Waseem (2013), for example, are able to credibly estimate frictions in the labour markets as well as structural labour supply elasticities by relying exclusively on the variation in average tax rates created through notches in the income tax schedule. This approach does not only promise clear and convincing identification, it also offers the advantage that treatment and control group span the whole population. As large administrative datasets are becoming more accessible for both high- and low income countries, exploiting the aforementioned quasi-experimental variation in conjunction with such rich datasets promises not only powerful and robust research results but also allows drawing broader conclusion to assure external validity.

In addition, research on state effectiveness in recent years has seen an increasing use of accessible and yet generalizable theoretical formulations to guide empirical analysis. Besley and Persson (2013), for example, have generated a range of theoretical ideas related to the relationship between tax capacity, growth and development that are being taken to different empirical settings for testing. In Best et al.(2013), the use of a simple theoretical model enables the authors to overcome one of the key limitations of non-experimental research, which is the observability of intrinsically unobservable quantities. The authors consider a kink in the corporate tax schedule in Pakistan created through a minimum tax scheme, in which profit-taxation is replaced by output-taxation if tax payments fall below a certain threshold. Best et al.(2013) note that there is little theoretical reason to expect large real behavioural responses at this kink as the implied increase in production distortion from falling below it is small. The data, however, shows strong reporting responses, with a large number of taxpayers reporting profit just around the kink, which, if real responses are theoretically unlikely, can be interpreted as evasion.

The same issue applies for experiments that can change the outcome of elections, but that yield important conclusions in the longer term to improve democracy and accountability. Several authors show that educating voters can disrupt vote-buying and lead to more conscious use of the right to vote (Fafchamps and Vicente 2012, Collier and Vicente 2012). The importance of information for accountability has also been long studied using natural experiments and direct interventions. Ferraz and Finan, for example, in a range of papers have extensively researched the role of information on governance and rule of law, and the impact of different methods and styles of information provision and content of the information on political and other outcomes. Although general conclusions could be drawn from these studies, the external validity of individual studies is not always strong and researchers and policymakers have to rely on several studies before making generalizations.

In cases of conflict, randomised experiments are not always feasible and researchers need to exploit exogenous variations present in natural experiments, relevant to understand the political failures, the costs of conflict, and how to formulate effective policy proposals to deal with conflict situations. An important finding is that the start of conflicts is usually driven partly by economic inequality as perceived by the most affected, and the opportunity costs associated with their status at that moment. In this sense, Harari and La Ferrara (2013) find that only shocks occurring during the growing season of the locally grown crops have an impact on conflict in Africa, consistent with the interpretation that the effect occurs through shocks to agricultural incomes. This demonstrates a link between inequality and the level of development and conflict and social instability.

In conclusion, the literature on state effectiveness in recent years has engaged actively in the "credibility revolution" through the use of randomised control trials and variation created through policy variables. The twinning of economic theory with improved empirical identification has also been part of this new research agenda. But no less important has been the direct interest displayed by policymakers in facilitating and utilising research findings that have been cogenerated with university based academics. As policy questions can be answered with greater precision there has been a growing demand on the part of policymakers to both facilitate research and to bring finding into the policymaking process in developing countries.

In addition to direct interventions and the building of theoretical underpinnings, future research should follow the path of combining large, administrative datasets spanning the whole population with credible (quasi-) experimental variation. As it is also in governments' interest to consistently evaluate existing measures, it is likely that direct collaboration between governments and frontier researchers will grow over time. The credibility and independence of university-based researchers has proven useful in overcoming resistance to injecting new ideas into the policy making process. And the collaboration with government in the generation of research also ensures that cogenerated policy ideas can achieve significant scale. There is thus real promise that the new wave of state effectiveness research will deliver tangible benefits in identifying policy reforms that are conducive to economic growth as well as the institutional structures necessary to ensure that these policies are implemented.

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