Decentralization in Developing Economies

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Abstract

Standard models of fiscal federalism suggest many benefits of decentralization in developing economies, and there has been a recent push toward decentralization around the world. However, developing countries presently still have less decentralization, particularly on the revenue side, than both developed countries today and the United States and Europe historically. We consider how the trade-offs associated with fiscal federalism apply in developing countries and discuss reasons for their relatively low levels of decentralization. We also consider additional features relevant to federalism in developing economies, such as the prevalence of nongovernmental organizations and the role of social incentives in policy design.

1. INTRODUCTION

Developing countries face severe limits on state capacity, both in raising revenue and in delivering public services effectively. The structure of fiscal federalism is often discussed as being integral to improving the functioning of the public sector and economic performance as a whole. The *World Development Report 1999/2000* notes that "the experience of the last 15 years shows that the devolution of powers affects political stability, public service performance, equity, and macroeconomic stability" (World Bank 1999). This article considers the theory and evidence on decentralization in developing economies, drawing on work in the public finance, political economy, and development literatures.[1]

The classic theory on fiscal federalism suggests many benefits from decentralization in developing economies, and decentralization has been encouraged as an important governance reform by organizations such as the World Bank. We demonstrate that developing countries have low levels of expenditure and tax decentralization, both relative to developed countries today and to the United States and Europe in the early twentieth century. These empirical patterns raise an important question: Why do we not see greater decentralization in developing countries, particularly on the revenue side? The main part of the article seeks to shed light on this question by considering the empirical evidence on the causal effects of decentralization as well as potential limits to decentralization.

An extensive literature in fiscal federalism has considered both the expenditure, or provision, assignment problem (which level of government should provide public services) and the revenue, or fiscal, assignment problem (which level of government should finance public services, and how). The classic theory outlines two core principles for thinking about optimal decentralization.

The first principle, formalized in Oates's (1972) decentralization theorem, considers the problem of provision decentralization. In the absence of economies of scale or uncorrected externalities, decentralized provision will always lead to (weakly) higher social welfare than will centralized provision. This result arises from heterogeneity across jurisdictions and the greater ability of local governments to match local preferences in public goods provision.

The second principle deals with the optimal assignment of fiscal responsibility (fiscal decentralization). A literature beginning with Musgrave (1959) has argued that efficiency costs will be minimized if the jurisdiction providing the service finances that service through a benefits tax: a tax designed to approximate a user fee or a price for local public goods. The intuition is that a tax reflecting households' marginal valuation for the public goods they receive will not result in deadweight loss. Taxes designed to achieve redistribution or correct externalities should be levied at the level of society over which the redistribution or internalization of externalities is desirable (see Gordon 1983, Inman & Rubinfeld 1996, and Oates 2005 for further discussion).

In the classic Tiebout (1956) framework, benefits of decentralization arise because preferences for public goods are revealed through interjurisdictional sorting, and local uniform taxes are benefits taxes because preferences within each jurisdiction are homogeneous. Some have argued that the Tiebout rationale for decentralization does not apply to developing economies because there are limits to mobility. However, the principles above do not depend on mobility: Although mobility may enhance the benefits of decentralization, there are potential gains, even in the absence

[1]Throughout the article, we use the terms developed and developing countries somewhat loosely. There is no clear dividing line between these groups, and there is obviously tremendous heterogeneity within each of these categories, however defined. Our goal is to highlight features that are often not emphasized when thinking about public finance and decentralization in rich countries (United States, Europe) but that are common characteristics of many low-income countries.

of mobility, as long as preferences and cost functions for the provision of public goods vary across jurisdictions and local policy makers have a (relative) informational advantage.

More recent work has explicitly incorporated additional factors, such as political economy considerations, in the determination of optimal decentralization. This literature comprises what Oates (2005) and others refer to as a second-generation theory of fiscal federalism (see Weingast 2009 for further discussion). We highlight here two key strands of this literature: the importance of local political processes and informational asymmetries. Besley & Coate (2003) introduce political economy considerations in the Oates framework, arguing that locally elected representatives will have conflicting interests on the allocation of resources from the center. The conflict of interest between districts stems from differences in tastes across jurisdictions and leads to suboptimality in the level and allocation of public goods in a centralized system.[2] Another line of literature has followed Brennan & Buchanan (1980) in modeling governments as seeking to expand beyond what is optimal for citizens. Under this model of government, decentralization is beneficial because it leads to fiscal competition and thereby curbs the expansionary tendencies of government. This may occur through mobility (citizens leaving rent-seeking jurisdictions) or through the ability of citizens to compare politicians across jurisdictions (yardstick competition) (Besley & Case 1995).[3]

Many international donors have followed the World Bank in promoting decentralization as a major governance reform (see Int. Monet. Fund 2009; United Nations 2009; World Bank 1997, 1999, 2004). This policy focus is based, often implicitly, on the idea that decentralization may be particularly favorable for developing countries. For example, provision decentralization is likely to be particularly beneficial when preferences are highly heterogeneous across jurisdictions, as is the case in many ethnically or socially diverse developing countries, or when the informational advantages of local policy makers are high relative to those of central governments. Although there may be corruption at all levels of government in developing countries, decentralization can improve accountability through jurisdictional competition and comparison.[4] However, while recent decades have seen a push toward decentralization in developing economies, overall levels of decentralization (especially on the revenue side) remain relatively low.

The remainder of the article proceeds as follows. Section 2 presents empirical evidence on patterns of decentralization around the world currently and historically. Section 3 reviews the empirical literature on provision decentralization, fiscal gaps, and fiscal decentralization in the context of the core principles discussed above and considers reasons why we do not observe greater decentralization in developing economies. Section 4 briefly discusses the provision of goods and services by nonstate actors such as nongovernmental organizations (NGOs), an important component of public service delivery in many developing economies. Section 5 considers what types of policy instruments may be appropriate for developing countries. In particular, we focus on an emerging literature examining innovative policies that seek to leverage some of the advantages of developing countries (e.g., in local information and the importance of social networks) to improve welfare. Section 6 concludes.

[2]The trade-off determining the optimal structure of fiscal federalism therefore remains one between the extent of interjurisdictional spillovers and heterogeneity across districts: The political mechanisms at play reinforce the economic ones in Oates (1972).

[3]There are of course other motivations for decentralization that are outside the scope of this article, such as the desire to maintain national political unity and stability (see, e.g., Bardhan 2002, World Bank 2004).

[4]An often raised counterargument is the possibility of elite capture at local levels; we discuss the evidence on elite capture in detail below.

2. EMPIRICAL EVIDENCE ON PATTERNS OF DECENTRALIZATION

In this section, we present empirical evidence on decentralization in developing economies, comparing patterns of decentralization with those in developed economies today as well as with the historical experiences of high-income countries.[5] We establish four main stylized facts. First, developing countries are on average less decentralized than are developed countries today. Second, developing countries have substantially more provision decentralization than fiscal decentralization, resulting in larger fiscal gaps than in developed countries. Third, the number of developing countries that have devolved responsibilities to state and local governments has increased over the past 15 years, as have fiscal gaps. However, subnational governments observed throughout the period we study have actually experienced a decrease in provision and fiscal decentralization. Fourth, the historical experience of developed countries sharply contrasts what we observe in developing countries today. In the early twentieth century, the United States and United Kingdom, for example, had substantially more decentralization and small fiscal gaps: The majority of subnational expenditures were financed locally.

2.1. Decentralization in Developing and Developed Countries

We first consider the scope of subnational governments as well as recent decentralization trends in developed and developing countries. There is little existing evidence to inform these questions because it is difficult to construct complete and consistent data series of subnational government budgets in developing countries.

We compile data on fiscal decentralization from the International Monetary Fund's Government Finance Statistics (GFS), the only database that documents revenues of central and subnational governments separately for a large sample of countries.[6] Our sample covers the 35 developed and 51 developing countries for which data are available for the 2006–2010 period. Although these data are the most comprehensive available, they are still incomplete in two respects. First, many developing countries do not report any government revenues in the GFS. For example, we have data only on 8 out of 48 sub-Saharan African countries. Second, many countries report some central government revenues but no subnational revenues, even when we know that local and regional governments exist. We code missing subnational governments as zeros and exclude countries for which no data on central governments are available. We discuss implications of these data limitations below.

We measure provision decentralization by the share of revenues in total public revenues allocated to subnational levels of government (local and regional/state). We measure fiscal decentralization by the share of tax revenues collected by subnational levels of government in total tax revenues. The alignment (or lack thereof) between provision and fiscal decentralization is measured by the fiscal gap, the share of subnational revenues not covered by subnational tax revenues.[7]

Figure 1*a*,*b* plots two measures of decentralization as a function of GDP per capita averaged over the period 2006–2010. We note that even in developed countries, subnational revenues

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[5]In our analyses below, we follow the World Bank's classification of countries based on their income per capita. We label high-income countries as developed and all other country groups (upper middle, lower middle, and low income) as developing. Countries are classified as high income when their gross national income reaches 12,616 US dollars per capita in 2011.

[6]World Bank publications sometimes report data on subnational revenues for some developing countries, but this information is not publicly available and covers few countries (see World Bank 2002, 2004).

[7]Dziobek et al. (2011) use GFS data but construct measures of decentralization comparing "general" and "central" government revenues and find that developing countries are less decentralized than are developed countries. Few developing countries report general government revenues, which is why we believe our method is more appropriate for examining decentralization in developing economies.

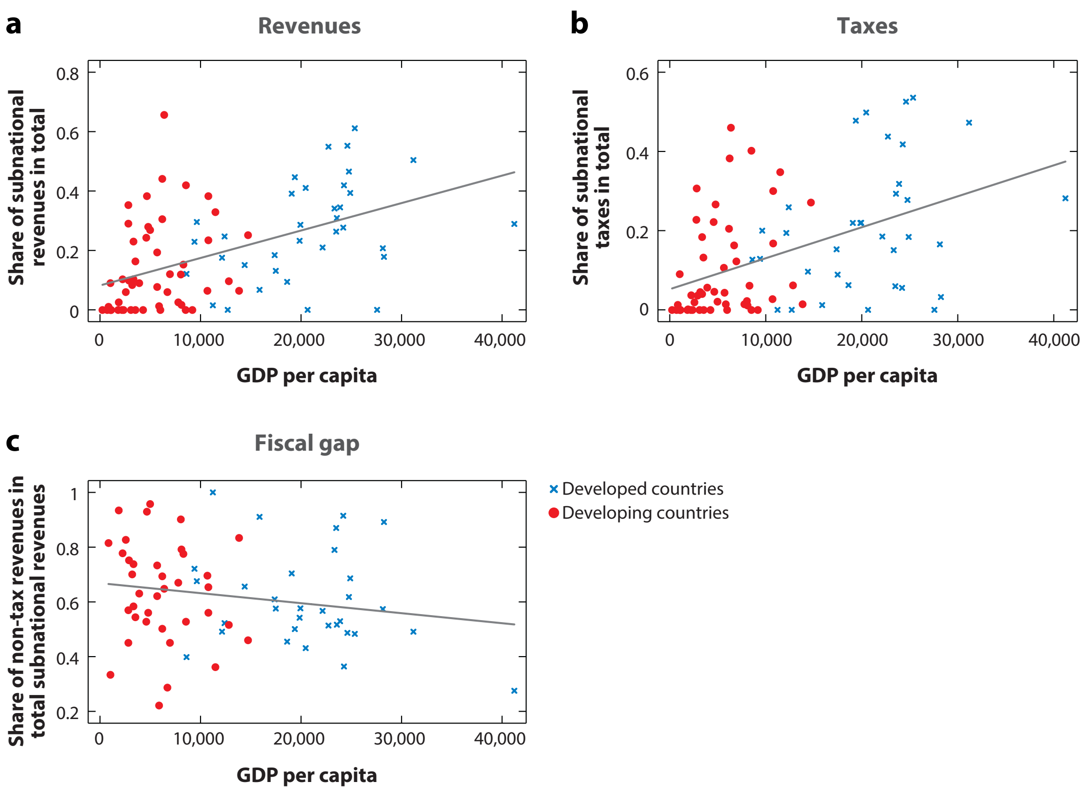

Figure 1

Cross-country evidence on decentralization for (*a*) revenues, (*b*) taxes, and (*c*) fiscal gaps over the period 2006–2010 as a function of GDP per capita in 2006–2010. We use Maddison's (2008) GDP data, which are in 1990 international Geary-Khamis dollars. Each point represents a country. These graphs are reproduced with country labels as **Supplemental Figure 1** (follow the Supplemental Material link from the Annual Reviews home page at **http://www.annualreviews.org**).

Supplemental Material

represent only slightly less than one-third of public revenues on average. This average hides substantial heterogeneity across countries: The United States, the most commonly studied fiscal federation, is considerably more decentralized than the average developed country (for a detailed discussion of US decentralization in the post–World War II period, see Baicker et al. 2012).

Developing countries are substantially less decentralized than developed countries: The shares of both subnational revenues and taxes are twice as high on average in developed than in developing countries (27% versus 14% for revenues and 21% versus 10% for taxes). Missing developing country observations likely bias this difference downward;[8] a lack of data on subnational budgets in other developing countries probably biases it slightly upward. However, these data limitations are unlikely to affect our overall conclusion that developing countries are less decentralized than developed countries.[9]

[8]The group of developing countries for which data are missing (mostly in sub-Saharan Africa) is probably less decentralized than that for which information is available (World Bank 2002).

[9]Oates reaches a similar conclusion using data from a much earlier time period (see Oates 1972, 1985).

Figure 1*c* plots the fiscal gap in countries that declare positive levels of subnational revenues. The fiscal gap is large in both developed and developing countries; on average, only 38% of subnational government revenues are raised through local taxes. Fiscal gaps tend to be larger in developing countries, where subnational governments depend more heavily on intergovernmental transfers. Again, some developing countries do not declare local government revenues or taxes when such local governments exist. Local governments in developing countries are generally highly dependent on transfers (see, e.g., Bird & Smart 2002, Shah 2006). Therefore, the data likely underestimate true fiscal gaps in developing countries.

Table 1 presents the evolution of the two measures of decentralization and the fiscal gap between 1996–2000 and 2006–2010. Developed countries have devolved slightly more revenues and taxes to subnational levels of government over the period. The evidence for developing countries is somewhat more mixed. **Table 1** shows that the shares of subnational taxes and revenues have actually decreased over time. This is somewhat surprising, given the emphasis in the literature on a decentralizing trend in developing countries (e.g., Bardhan 2002, Shah 2006, World Bank 2004). However, the number of countries reporting subnational revenues to the GFS has increased over time, and this is particularly true for the sample of developing countries. Examining individual cases, we see that these countries begin reporting subnational revenues shortly after legal changes increasing the responsibilities of local governments, indicating a real decentralization rather than changes to data collection or reporting. In addition, there may be cases of decentralization that we do not observe in our data. India, for example, assigned expenditures to local governments in the 1990s but does not report any information on its local governments in the GFS; Ethiopia decentralized in the same period but is not in our data set. The final trend presented in **Table 1** is the evolution of the fiscal gap. It is roughly stable in developed countries but increases in developing countries: The share of nontax revenues in subnational revenues increases from 49% to 62%. Subnational governments in developing countries seem to rely increasingly on transfers from the central government to finance their expenditures.

Table 1 Recent trends in decentralization

	1996–2000		2006–2010	
	Mean	**Observations**	**Mean**	**Observations**
Developed countries				
Subnational revenue share	25 (16)	32	27 (16)	32
Subnational tax share	19 (16)	32	21 (16)	32
Fiscal gap	60 (17)	28	61 (18)	30
Developing countries				
Subnational revenue share	16 (17)	38	14 (15)	38
Subnational tax share	14 (16)	38	10 (13)	38
Fiscal gap	49 (23)	23	62 (20)	27

The means are over the periods 1996–2000 and 2006–2010 and are shown in percent terms (standard deviations are in parentheses). The sample includes the 32 developed countries and 38 developing countries for which we have central government data for at least one year in 1996–2000 and at least one year in 2006–2010. The fiscal gap is computed in each period for the sample of countries for which the subnational revenue share is nonzero.

2.2. Historical Comparisons

Another question of interest is how decentralization in developing countries today compares with the historical experience of the United States and Europe. We begin with an examination of the United States, using data from the US Census Bureau. The US tax to GDP ratio in the early 1900s was less than 10%, lower than most developing countries today (authors' calculations from US Census Bur. 2010; Maddison 2008). However, the observed patterns of decentralization were entirely different. **Figure 2*a*** plots the share of subnational revenues in total public revenues in the United States. In 1902, subnational revenues (consisting almost entirely of local revenues) were over 60% of total public revenues. This ratio is higher than that for all developing countries observed in the GFS and is more than twice as large as the average for developing countries in our sample.

The second notable feature of historical decentralization in the United States is that there was close alignment between provision and fiscal decentralization: Virtually all local spending was financed locally through property taxes (US Census Bur. 2010). This can be seen in **Figure 2*b***, which plots the share of intergovernmental grants in total state and local revenues. The fiscal gap is below 10% until the 1930s and the enactment of the first federal social insurance programs.

This historically high level of locally financed local provision is not unique to the United States: Patterns of decentralization in the United Kingdom are similar overall. **Figure 3*a*** plots the share of subnational revenues in total revenues, and **Figure 3*b*** shows the share of intergovernmental grants in total subnational revenues, in 10-year averages for the United Kingdom using data from

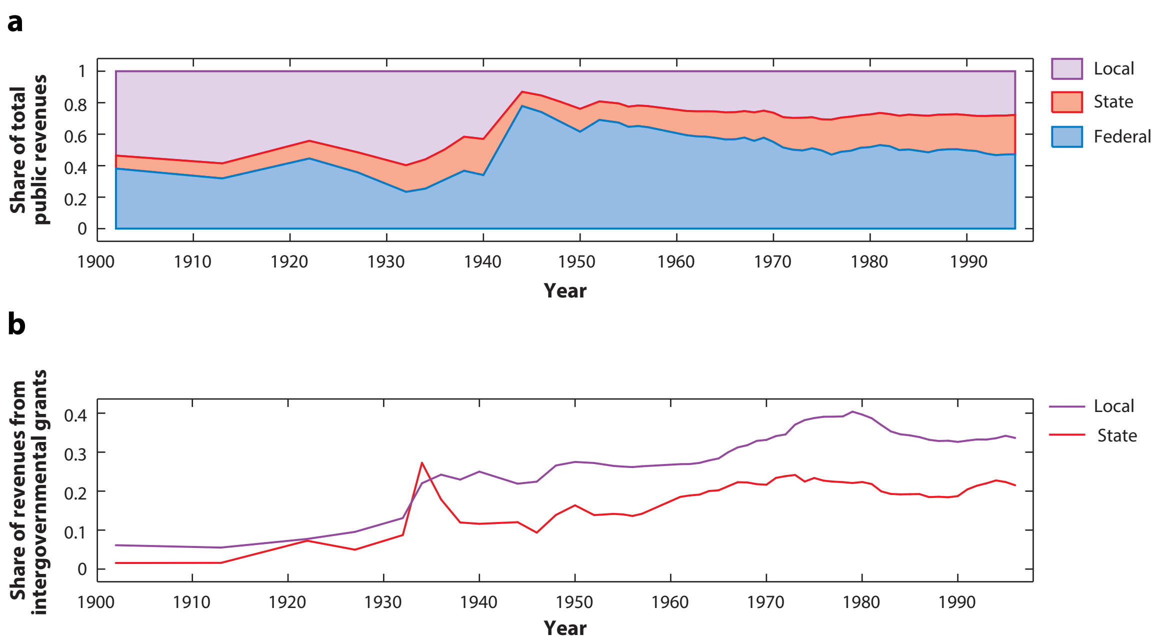

Figure 2

US decentralization, 1902–1996, using data from the US Census Bureau (2010). (*a*) The share of total public revenues at each level of government, net of grants to other levels of government. (*b*) The share of state and local revenues comprising grants from a higher level of government.

Mitchell (1988). The United Kingdom was always more centralized than the United States, but subnational revenues still represented more than 40% of total revenues until the 1920s, and the fiscal gap was small, less than 20%, until the 1930s. Although comprehensive historical statistics on decentralization for other countries are limited (see Wallis & Oates 1988), evidence discussed in Pommerehne (1977) shows that France, Switzerland, Germany, and Canada all had substantially more decentralized provision in 1900 than most developing countries have today.

3. WHY DON'T DEVELOPING COUNTRIES DECENTRALIZE MORE?

The principles for optimal decentralization discussed in Section 1 suggest many potential benefits from decentralization in developing economies. Yet the empirical evidence demonstrates that developing countries not only are less decentralized than developed countries are today, but are also substantially less decentralized than the United States and United Kingdom were in the early twentieth century. This is especially true for fiscal decentralization: Although the United States and United Kingdom financed most local public goods provision locally, in developing countries subnational governments are generally highly dependent on transfers. This apparent disconnect leads naturally to the following question: Why do we not observe greater decentralization in developing countries? In this section, we review the empirical evidence that sheds light on this question. We begin with evidence on the effects of provision decentralization and then consider evidence on fiscal gaps and fiscal decentralization.

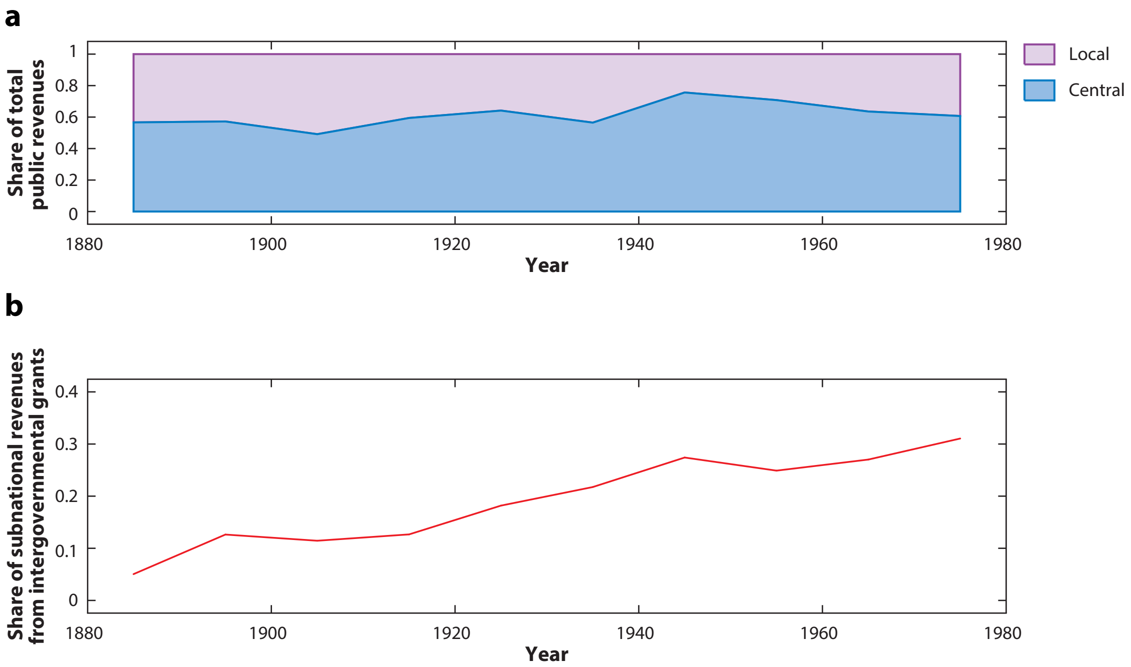

Figure 3

UK decentralization, 1885–1975, using data from Mitchell (1988) on local and central government revenues in the United Kingdom. (*a*) The share of total public revenues at each level of government, net of grants to other levels of government. (*b*) The share of subnational revenues comprising grants from a higher level of government. Both panels exclude Northern Ireland, and panel *b* also excludes Scotland.

3.1. Decentralization of Provision Responsibility

We start by discussing the limited causal evidence on the impact of decentralization reforms on outcomes and then turn to microevidence on the specific mechanisms through which provision decentralization could improve or worsen outcomes relative to centralized provision.

3.1.1. Direct evidence on the causal effects of decentralization. How does the structure of fiscal federalism affect outcomes? Finding a good counterfactual for regions experiencing decentralization reforms is difficult as decentralization typically affects entire countries and is often part of a wider policy package that also includes liberalization or democratization reforms. Quantitative evidence on the causal impact of decentralization is thus limited.

Some direct evidence comes from the analysis of specific reforms that decentralized provision of public services. Faguet (2004) considers the 1994 decentralization reform in Bolivia. This reform doubled the share of public revenues allocated to municipalities and greatly expanded their expenditure responsibilities (see also Faguet 2008). He finds that the reform was associated with a large increase in reported local public investment in education and health and that these investments became more responsive to measures of local need. Similarly, Kis-Katos & Sjahrir (2014) find that expenditure decentralization in Indonesia in 2001, which created two new layers of subnational governments, led to higher investments in public infrastructures in districts that had little infrastructure to start with. These results are in line with the frameworks in Oates (1972) and Besley & Coate (2003) that suggest there are gains from decentralization when local preferences are heterogeneous. Galiani et al. (2008) use a difference-in-difference type of strategy to examine the effects of a school decentralization program in Argentina and find improvements in test score performance on average, although these gains are concentrated in nonpoor municipalities.

A small literature has considered the cross-country evidence on the impact of both provision and fiscal decentralization on economic growth. The overall evidence is mixed, with different studies reaching opposite conclusions (see Martinez-Vazquez & McNab 2003 for a review of this literature). Two cross-country studies of the causal relationship between decentralization and nongrowth outcomes are of particular interest for developing countries. First, De Mello (2000) finds that the fiscal gap worsens the fiscal balance in developing countries. His explanation is that these countries face a common pool problem: Subnational governments, knowing that the central government will provide the necessary revenues, overspend relative to what is socially optimal. We discuss problems associated with the fiscal gap in more detail below. Second, Fisman & Gatti (2002) find that provision decentralization lowers corruption, in line with the idea that decentralizing decision making may improve government accountability, as we discuss below.

3.1.2. Informational advantages of local governments. One of the channels through which local governments may be able to achieve better outcomes is through informational advantages. A context in which informational advantages are particularly relevant in developing countries is in the targeting of transfer programs. In standard tax and transfer models, the social planner maximizes social welfare under asymmetric information about earnings ability. An important shortcoming of this class of models in their applicability to developing economies is that many developing country governments are not easily able to observe earnings, let alone earnings ability. In some cases, they may not even be able to identify the existence of individuals or firms (see Muralidharan et al. 2014 for evidence on the effects of the introduction of biometric identification cards in social programs in India). In the context of transfer programs, this means that targeting the poor is very difficult.

How can governments target transfers if they cannot observe earnings? A commonly utilized method is proxy means testing, which uses assets and categorical factors (e.g., age, location, gender) to predict individual income. An alternative mechanism is the use of community-based targeting: allowing local governments to determine the allocation of transfers. The motivation for community-based targeting is the idea that localities have better information about the members of their communities and are better able to recognize those who are genuinely poor.

In a study of a transfer program in Albania, Alderman (2002) finds that local elected officials appear to be doing a better job of targeting than would be predicted by either official proxies for poverty or the information on household assets and circumstances collected in an exhaustive household survey. In some community-based targeting programs, the line between local government and local community becomes blurred. Galasso & Ravallion (2005) find improved targeting by local community groups in the Bangladesh Food for Education program, in which the allocating committee usually consisted of "teachers, local representatives, parents, education specialists and donors to the school." In particular, they find that local communities are better at identifying the poor than the central government is at identifying poor villages, so the program's overall targeting efficiency is mostly explained by targeting at the local level. Alatas et al. (2012) examine a randomized trial in which community-based targeting was done by consensus in village meetings consisting of community members. They find that the community-based method performs slightly worse than proxy means tests on consumption targeting but achieves higher satisfaction. We present a more detailed discussion of this study in Section 5. Overall, these results provide direct microevidence in support of the idea that decentralization can improve outcomes through informational advantages of local communities and officials relative to central policy makers.

3.1.3. Decentralization and accountability. One of the most commonly heard arguments in favor of decentralization in developing countries is that it will increase the accountability of government by "bringing it closer to the people" (World Bank 2004). Decentralization changes the nature of the local political agency problem from one between local bureaucrats/service providers and the central government to one between citizens and elected local politicians. This improves information if citizens observe the local public services production function better than the central government (Bardhan & Mookherjee 2005, 2006) or are able to infer the performance of their elected representative from comparing across local governments (yardstick competition). By increasing the probability that local outcomes determine the re-election of incumbent politicians, decentralization also potentially improves political enforcement (Seabright 1996). We note that these mechanisms are likely to be particularly powerful if there are both provision and fiscal decentralization, but they are relevant even if only provision is decentralized and governments are held accountable for how funds are spent.

Community-based monitoring. A growing literature on community-based monitoring considers the impact of empowering local communities on the behavior of politicians and service providers. Overall, the evidence is mixed. Banerjee et al. (2010) discuss a number of interventions designed to encourage communities' monitoring of local schools that had little effect on community involvement, teacher effort, or learning outcomes. However, Bjorkman & Svensson (2009) present positive results from Uganda in which an intervention that organized meetings between providers and beneficiaries of public services improved provider efforts and health outcomes. Olken (2007) directly compares decentralized and centralized forms of monitoring in the context of local projects in Indonesia. He finds that audits (a tool typically used by central governments to control local bureaucrats) reduce corruption, whereas increased monitoring by citizens has little impact overall. The mixed evidence on monitoring is somewhat surprising, as we might have expected local communities to be able to exploit local information and potentially a greater range of enforcement options. One possible limit to the effectiveness of local monitoring is elite capture, an issue to which we return below.

Yardstick competition. There is, to the best of our knowledge, no evidence on the extent to which voters in developing countries use information on outcomes in neighboring jurisdictions to infer the performance of their local politicians and hold them accountable (see Besley & Case 1995 for evidence on yardstick competition in the United States). A growing literature, however, directly considers the role of information in improving government accountability in developing countries, typically at the local government level. Studies of Brazilian municipalities are particularly well suited to examine this question, thanks to an anticorruption program that has regularly conducted random audits of local governments since 2003. Ferraz & Finan (2008) find that citizens vote corrupt mayors out of office more when reports are made public before the elections, indicating that citizens indeed have imperfect information about corruption. Litschig & Zamboni (2013) show that providing information consequently improves outcomes. They also find that when local officials are faced with a higher probability of audit, they take fewer rents.

More generally, this literature broadly concludes that providing citizens with information on the behavior of local officials can improve public service delivery (see Besley & Burgess 2002 for early work on the subject and Olken & Pande 2012 and Banerjee et al. 2012 for recent reviews of the political economy literature). In one example, Reinikka & Svensson (2011) study a campaign in Uganda that published education grant amounts in newspapers. They find that exposure to information (proxied by distance to newspaper outlets) substantially increased the share of the grants received by the school and had a positive effect on educational outcomes.

Although these results do not directly test the effects of decentralization, they do demonstrate that citizens in developing countries use information on performance in a sophisticated way. This indicates that one of the key mechanisms through which decentralization could improve accountability—the generation of information on performance—is relevant in developing countries.

Capture and allocations within local jurisdictions. It is important to note that community monitoring and the provision of information are not always successful. Some recent work hypothesizes that this may be because it is difficult for community members to take action against elites (see Banerjee & Duflo 2006 in the context of absenteeism) or because elites can influence the enforcement process (see Olken 2007 in the context of theft).

These findings relate to a broader argument that decentralization can worsen public delivery outcomes in developing countries because local politicians are subject to elite capture (see, e.g., Bardhan 2002). Bardhan & Mookherjee (2005, 2006), in particular, point out that introducing electoral incentives to local officials in charge of providing public services may backfire if these officials are accountable only to local elites. A related literature considers the role played by the large ethnic diversity at the local level that characterizes many developing countries; overall results suggest that ethnic diversity worsens public good provision, possibly because social sanctions are hard to enforce across different ethnic groups (see Alesina & La Ferrara 2005, Miguel & Gugerty 2005). These literatures suggest that both the level and the allocation of local public goods in developing countries could be suboptimal.

There is some evidence that local officials do target public spending more toward their own social or ethnic group. In the Indian context, for example, Chattopadhyay et al. (2005) find that lower-caste areas receive more local public infrastructures when the village leadership is reserved for a lower-caste politician; Besley et al. (2012) show that elected local councillors are more likely to be the recipient of transfers that are allocated by the local government than is the average citizen (see also Banerjee & Pande 2009 for a study of the impact of voters' preference for politicians from their own ethnic or social group on the quality of politicians).

More mitigated evidence on elite capture is found by Alatas et al. (2013), who study the allocation of targeted welfare programs in Indonesian villages. They find no evidence of elite capture overall, although formal leaders (local officials) do seem to capture some transfers in villages where transfers are large relative to private consumption. Moreover, they show that even in those villages, the costs of elite capture are relatively small: Eliminating it entirely would increase the welfare gains from the programs by less than 1%.

Capture of local public goods by social groups close to local officials is therefore a concern, although perhaps not as large as the literature sometimes suggests. The implications of capture for optimal decentralization levels in developing countries are, however, ambiguous, as they depend on whether local officials are more or less likely than central officials to be captured by elites or their own social group. To the best of our knowledge, there is no clear evidence on relative capture by central and local government officials.

3.2. Fiscal Gaps

A notable feature of decentralization in developing countries is the presence of large fiscal gaps. This means that a substantial share of local expenditure is financed through intergovernmental grants. This structure of financing contrasts sharply with the general principle that (in the absence of externalities or redistributive motivations) taxes should be levied by the jurisdictional level at which public goods are provided, and it is quite different from the historical patterns of finance in modern developed countries.

The lack of strong tax-benefit linkages means that developing countries may be failing to capture many of the potential gains from decentralization. As discussed above, setting taxes that approximate user fees for local public goods minimizes efficiency costs; the finance of public goods in developing countries is very far from this structure. Again, this notably contrasts with the historical experiences of the United States and Europe, in which the majority of local public goods finance was through local taxation. In addition, the fact that local governments do not bear fiscal responsibility for spending on the margin is likely to lead to allocative inefficiencies across jurisdictions.[10]

Financing local public goods and services through intergovernmental transfers may be particularly problematic in the presence of widespread corruption, as transfers may be diverted before reaching the public. A striking example is that of school grants in Uganda: Reinikka & Svensson (2004) find that only 13% of education grants in 1991–1995 actually reached schools, and the median school received no grant funds. In a study of a large antipoverty program in Indonesia, Olken (2006) finds that at least 18% of the rice sent by the central government to village governments never reached its intended beneficiaries. Using randomized audit data, Ferraz & Finan (2011) estimate that Brazilian local governments diverted 8% of federal transfers in the period 2001–2003.

There are theoretical reasons to believe that overall theft from intergovernmental grants will be higher than theft from locally raised revenues. For example, citizens may have limited information about the magnitude of intergovernmental grants. In addition, recent models of

[10]There are other reasons why the alignment of provision and fiscal responsibility may be desirable, such as the wish to give local governments more autonomy for spending over which they are politically responsible (see Bird 2011 for further discussion).

corruption suggest that the number of administrative layers matters: The number of agents who (potentially) ask for bribes will increase the total amount of bribes paid if each agent does not fully internalize the effect of his or her bribes on other agents' bribe revenues (Olken & Barron 2009, Shleifer & Vishny 1993).

Direct evidence that the source of local revenue matters is found by Gadenne (2013), who compares how Brazilian municipalities spend increases in local tax revenues generated by a tax capacity program and increases in constitutionally mandated federal transfers. She finds that increases in local taxes have a positive impact on both the quantity and quality of locally funded public education infrastructures, the main expenditure responsibility of Brazilian local governments. Increases in transfers of roughly the same amount have no impact on education infrastructure; suggestive evidence on health infrastructure goes in the same direction, with tax revenues having a bigger impact than transfers. There is no impact of tax revenues on corruption. In contrast, Brollo et al. (2013) show that increasing intergovernmental transfers leads to higher municipal corruption in the same context. These results are in line with the idea that intergovernmental transfers create rent-seeking opportunities: Tax revenues seem to be spent more on local public goods, and less on rents, than transfer revenues.

3.3. Decentralization of Fiscal Responsibility

We now turn to the question of why developing countries often have so little fiscal decentralization. In the standard framework, centralized finance can be justified if there are large externalities from public goods. However, we know of no evidence suggesting that such externalities are larger in developing countries today relative to the United States and Europe in the early twentieth century. A large literature has argued that the collection of local taxes is hindered by a lack of information (e.g., poor records on land ownership) and a lack of administrative capacity (see Bardhan 2002, Besley & Persson 2013, Burgess & Stern 1993, Cage & Gadenne 2014, Gordon & Li 2009, Keen 2012, Skinner 1991, Slemrod 2007). Although we agree that these are relevant factors, local governments likely faced similar constraints in the United States in 1900. In addition, we do not know of direct evidence that central governments are more easily able to administer (often complex) taxes, such as corporate income taxes and VAT, than local governments are to administer land and property taxes.

We consider five possible reasons for the relative lack of fiscal decentralization in developing economies. First, formal budget figures may in fact understate the true degree of fiscal decentralization and overstate fiscal gaps by failing to capture informal financing of local public goods. Second, central governments often place explicit limits on the taxing authority of local governments. Third, some developing countries' revenue sources, such as natural resource income and foreign aid, lend themselves naturally to centralized collection. Fourth, the empirical evidence indicates that many developing countries today are more heavily focused on redistribution than the United States or United Kingdom were in the early twentieth century. Finally, historical factors may have shaped the ability of local governments to raise taxes. We focus, in particular, on the example of taxation during the colonial era, arguing that negative experiences during this period may have made it politically difficult to levy and enforce land and property taxes (the natural sources of revenue for local governments) in many developing countries today.

3.3.1. Informal taxation. As discussed above, official government budgets indicate very little fiscal decentralization in many developing countries. However, local communities in these countries do often rely on community members to finance local public goods directly, what Olken & Singhal (2011) refer to as "informal taxation." This type of community provision is often encouraged by central governments and international organizations such as the World Bank, both as a direct mechanism for local public goods provision and as a form of cofinance. Olken & Singhal document that a substantial share of households in developing countries around the world contribute through money, materials, and often labor to the construction and maintenance of public goods, such as roads, schools, and water systems.

Olken & Singhal (2011) find that informal taxation can be quite important. In their Indonesia sample, for example, informal taxes make up the largest source of revenue under local control and increase the estimated amount of revenue under local control by 50%. This form of finance can also be a nontrivial source of overall public goods provision: After the Indonesian decentralization, districts had the responsibility for essentially all public goods spending. The authors find that "informal taxation payments are 4.4 percent as large as total district budgets, and 12.6 percent as large as district spending on capital expenditures." It is also very common for the maintenance of centrally provided projects to be left largely to local informal tax mechanisms (Khwaja 2009).

The prevalence of informal taxation means that formal budget figures in developing countries may underestimate the overall size of the public sector and the level of decentralization, particularly on the revenue side. There may also be tighter tax-benefit links at the local level than budget figures would suggest.

3.3.2. Political constraints. A second possible explanation for the relative lack of fiscal decentralization is that subnational governments are often given limited autonomy in levying taxes. Decisions about subnational tax bases and rates are commonly made by higher levels of government, and central governments are sometimes reluctant to give taxation powers to subnational governments (Bahl & Bird 2008, Ebel & Taliercio 2005).

There are various hypotheses regarding the reasons central governments limit the taxing authorities of local governments. Some argue that central governments are reluctant to devolve responsibility for local public goods finance to local governments because they know they will ultimately have to bail out local governments that are unable or unwilling to raise revenues (Bird 2011). It also seems likely that central governments may simply not wish to delegate revenue-raising authority in order to increase their own political power or opportunities for rent seeking.

The involvement of central governments in determining state and local taxes often limits the fiscal capacity of subnational governments: Low "local" tax rates on land and property may reflect choices of central governments. Imposing centrally determined taxes also severely undermines the potential efficiency benefit of these taxes: Taxes are less likely to reflect better local information and less likely to approximate user fees.

3.3.3. Revenue sources. A third potential explanation for greater fiscal centralization relates to the revenue sources common in developing countries. Today's developing countries rely on two sources of revenues that are not a large share of revenues in today's rich countries: revenues from the exploitation of natural resources and development aid. GFS data from 2000 to 2010 indicate that 80% of the public revenues of high-income countries came from tax revenues compared to only 65% in low- and middle-income countries (Gadenne 2012).[11] Although comprehensive cross-country data on natural resources are unavailable, a recent International Monetary Fund study reports that revenues from petroleum alone constitute more than 10% of public revenues in 22 developing countries in its sample and over 80% in at least two countries (Int. Monet. Fund 2012). Similarly, 15 of the 48 developing countries for which data on the share of aid in

[11]The high-income country group includes most of the oil-rich countries in the Middle East.

government revenues were available in 2007 relied on aid for at least 25% of expenditure (World Bank 2009).

Revenues from natural resources are highly geographically concentrated and therefore naturally collected by central governments; aid revenues typically go to central governments for political and administrative reasons. It would still be more efficient for central governments to allocate these revenues to individuals as transfer payments and then have benefits taxes levied locally; however, making such transfers in practice is challenging. Reliance on natural resource and aid revenue will therefore likely increase the fiscal gap.

3.3.4. Redistribution. Most developing countries lack the large-scale social insurance programs and types of social safety nets we observe in modern developed countries. This might suggest that redistribution is less of a primary function in developing countries, thereby further strengthening the argument for fiscal decentralization. However, some argue that developing country governments are in fact more focused on poverty alleviation than efficient public goods provision (Bardhan 2002).

The empirical evidence does indicate that developing countries tend to have a greater focus on redistribution than was the case in the United States at the turn of the century. The vast majority of US federal government expenditures in 1900 consisted of defense, veterans' services and benefits, and the postal services, with essentially no direct spending on transfer programs (Fabricant & Lipsey 1952).

In contrast, many developing countries have enacted fairly sweeping transfer programs. In India, NREGS (National Rural Employment Guarantee Scheme) provides guaranteed paid work to all citizens in the country, and the PDS (Public Distribution System) provides subsidized staple commodities to poor households. Together, these two programs alone are nearly 2% of GDP and 16% of federal public expenditure (Himanshu & Sen 2013, Niehaus & Sukhtankar 2013). Large-scale transfer programs are not unique to India: Brazil's Bolsa Família costs 0.5% of Brazil's GDP, and Mexico's Progresa costs 0.2% of GDP (Skoufias 2005, Soares 2012).

Understanding why modern developing countries are more focused on redistribution than today's rich countries were at an earlier stage of development is a question beyond the scope of this article. This greater emphasis may possibly reflect higher expectations of citizens from their governments, perhaps because citizens in developing countries observe the social safety nets provided in richer countries, although there are many other potential explanations. The desire to achieve redistribution, both through transfer programs and through the direct provision of public goods, may be a contributing factor to the (relative) lack of fiscal decentralization in developing countries today.

3.3.5. Historical legacies. Finally, the historical experiences of developing countries may continue to affect their tax systems today. We focus, in particular, on the potential lasting impacts of colonial tax systems. The experience of India provides an illustrative case. As discussed by Banerjee & Iyer (2005), land taxes were the predominant source of tax revenue in India under the British Raj. Systems of collection varied. In many parts of the country, land revenue was collected through a system of tax farming in which the responsibility for tax collection in an area was delegated to a local landlord (*zamindar*) who had enforcement authorities and was allowed to retain any surplus revenue collected. These systems of land taxes, however, did not last beyond the colonial period. As Banerjee & Iyer (2005) note, "there are no direct taxes on agricultural income in independent India." Notably, this is despite the fact that systems of land taxation in India predated the British era: Land taxes were the predominant form of revenue in the Mughal period of the sixteenth and seventeenth centuries (Banerjee & Iyer 2005).

Such colonial systems of land and property taxation were not unique to India. In Indonesia, for example, the Dutch levied land taxes and relied on ethnic minority Chinese businessmen to play the "*zamindar*" role (Rush 2007). In Africa, most colonial powers imposed poll taxes or property taxes in the form of hut taxes levied on dwellings.

There were several common features of these tax systems. First, they were often hugely unpopular among the local populations. In Africa, for example, poll and hut taxes led to a series of tax revolts. The most well known is the Hut Tax War of 1898 in Sierra Leone, but revolts against hut taxes also occurred in Angola, French West Africa, German East Africa, and Swaziland and Natal (see, e.g., Coquery-Vidrovitch 1998, Gardner 2010). Second, in many cases, these taxes were not seen as a mechanism for financing local public goods and services. Rather, taxes were often used to enrich colonial powers or to achieve other goals, such as exerting local control and forcing native populations into the labor force (Forstater 2003). The imposition of these taxes became tied up with larger issues of property rights and sovereignty. Third, the enforcement of these taxes was often highly coercive, and enforcement authority was sometimes abused (Acemoglu et al. 2001, Bagchi 1988).

As a result, land and property taxes as well as associated methods of enforcement (tax liens, tax farming) had strong negative associations in the postcolonial era, at least in many parts of the world. We do not claim that levying such taxes is infeasible in modern times: Land and property taxes remain the primary local source of revenue for most local governments in the developing world. In addition, recent work by Khan et al. (2013) on the property tax in Pakistan demonstrates that giving tax collectors high-powered incentives based on the tax revenue generated (a system akin to tax farming) improves tax collection. However, citizens' attitudes toward these taxes are likely quite different in modern developing countries than in the United States and Europe in the early twentieth century. Governments may therefore face greater political challenges in levying and enforcing strong local tax systems. Fjeldstad & Therkildsen (2008), for example, argue that a number of East African countries attempted to continue using the poll tax for local public finance after independence but that this failed because the taxes "mobilised rural people politically to combat a practice that they have experienced as repressive."

We do not see the above explanations for low fiscal decentralization as mutually exclusive: Some are certainly more likely to be relevant in particular contexts than others. If today's developing countries do have a greater focus on redistribution or greater reliance on centralized revenue sources than the United States or United Kingdom in the early twentieth century, more fiscal centralization may be desirable. However, local governments may also face strong constraints—imposed externally by potentially corrupt central governments or internally by historical experiences—that limit the ability to collect local revenues. If there are limits (for whatever reasons) to fiscal decentralization, then provision decentralization may be less desirable as well: It makes intergovernmental grants necessary, and these create rent-seeking opportunities, as discussed above.

In the final sections of the article, we consider two other issues that are of particular relevance when thinking about decentralization in developing economies: the role of NGOs and the use of nontraditional policy instruments to improve social welfare.

4. PROVISION OF PUBLIC SERVICES BY NONGOVERNMENTAL ORGANIZATIONS

With the exception of informal taxation, our discussion has focused on the government sector. However, in most developing countries, a substantial share of public goods provision occurs outside the formal public sector, through NGOs. There are over 20,000 international NGOs in operation today, and billions of dollars in aid from rich countries are channeled through NGOs annually (Werker & Ahmed 2008). In many places, NGOs are a primary provider of public goods.

In fact, the majority of randomized evaluations in developing countries (e.g., on health and education interventions) have been conducted in collaboration with NGO providers rather than with government agencies.[12] However, despite the tremendous amount of academic research conducted with NGOs, there is surprisingly little research, either theoretical or empirical, on NGOs themselves. We focus here on a few key areas in which NGOs are most important for thinking about the public sector and decentralization (see Werker & Ahmed 2008 for a broader discussion of the NGO sector).

First, as with informal taxation, formal budget figures may miss a lot of what is actually happening on the ground. This is true both in terms of the overall amount spent on public goods and services and in terms of resource allocation, as NGOs tend to concentrate in certain sectors. From the point of view of decentralization, we often think of NGOs as local because they are usually integrated closely into local communities. But it is important to keep in mind that the majority of NGO dollars come from rich country governments and private contributions from individuals in rich countries (Werker & Ahmed 2008). NGO projects, particularly for large NGOs, are therefore funded not only outside the local community, but also outside the country budget.

Second, we have very little understanding of how NGOs interact with the public sector. One way to think about NGOs is as governments contracting out to the private sector (see Besley & Ghatak 2001 for further discussion). However, NGOs often appear to operate somewhat independently from governments as well. We often think of NGO provision arising as a response to the failures of the state. However, NGOs may also contribute dynamically to the failure of the state by crowding out the local public provision of services. To the best of our knowledge, existing empirical work has not examined government responses to NGO activity. There are also open questions when we move to thinking about the political economy of NGOs and the government sector. For example, do citizens distinguish between government and NGO provision when rewarding or punishing politicians or when comparing across jurisdictions? And do citizens even want their governments to focus on providing services if NGOs choose where to locate based on the lack of service provision? Perhaps a good local government is not one that builds schools but rather is successful at competing with other jurisdictions to attract an internationally funded NGO to build schools!

Finally, understanding how governments respond to NGO activities requires us to better understand NGO incentives. NGOs are often described as bridging the gap between governments and citizens, presumably with the idea that the need for NGO involvement will decrease as state capacity increases. However, it is unlikely for any organization to see its desired future as nonexistence; on the contrary, donors may evaluate NGOs on the scale of their activities. The accountability of NGOs vis-à-vis the state is also unclear (see Barr et al. 2005 for further discussion).

5. POLICY INSTRUMENTS TO IMPROVE WELFARE

In this section, we consider what types of policy instruments can be used to improve social welfare in developing economies. Much attention has focused on the various types of instruments that are relevant to the developed country context. For example, we can improve information through the digitization of records, improve administrative capacity through technology and training, and find

[12]This also raises the important question of whether results from these interventions will scale up to settings in which the government is the provider, given differences in employee selection and incentives between the NGO and government sectors.

ways to increase transparency. Broadly speaking, we can think of these types of policies as making developing countries look more like developed countries.

We do not wish to downplay the importance of such policies: There is substantial evidence that these types of policies can in fact improve outcomes. However, an emerging literature suggests that we may also be able to design alternative policy instruments that exploit the fact that developing country environments have some advantages relative to developed countries in addition to constraints. Specifically, new research is focusing on how policy makers may be able to leverage information and social incentives to improve policy outcomes. This literature is of particular interest in the context of fiscal federalism, as many of the relevant forces operate best at local levels.

Considering the example of microfinance may help to provide intuition. Microfinance lenders have limited ability to observe individuals' actions as well as limited ability to force individuals to repay loans. However, in the communities they serve, there is often very good local information and ability to punish through social channels. The lender can thus structure contracts (e.g., joint liability loans) that incentivize the use of these local information and enforcement mechanisms. How can this idea be applied to the public finance context?

5.1. Revenue

As discussed above, Olken & Singhal (2011) document substantial informal tax financing of local public goods. They consider several possible explanations for why informal tax systems arise. One possibility is that informal tax systems can make use of information within the community that is observable but not legally verifiable when setting payments. Interestingly, the empirical evidence indicates both redistributive and user-fee components to observed payments across individuals. However, informal tax systems must rely on social sanctions for enforcement. If we take the traditional view of the state as having no limits on enforcement, then the choice between informal and formal taxation represents a trade-off between information and enforcement. If the state faces limits to enforcement, then informal taxation may be preferable on both grounds.

The widespread existence of informal tax mechanisms raises the question of whether such social pressures could be leveraged by policy makers to improve revenue collection in formal tax systems. A number of countries around the world recognize top taxpayers, presumably with the idea that such positive recognition will encourage individuals and firms to be more compliant. Some evidence on this question is provided in Del Carpio's (2013) work on Peru: She finds that providing potential taxpayers with information about compliance norms in their neighborhood increases compliance (see also Leicester et al. 2012 for a discussion of recent work on the role of social norms in determining tax compliance in developed countries).

5.2. Public Service Delivery

Another recent literature considers the extent to which social rewards and punishments in communities can be leveraged to improve public service delivery. The theoretical literature suggests that providing nonmonetary incentives to workers will be particularly effective in organizations that produce goods with large social externalities, such as the public sector and NGOs, for two reasons. First, these organizations gain from hiring workers with prosocial preferences, and these workers may value nonmonetary gains more than financial gains (Besley & Ghatak 2005, 2008). Second, financial incentives could crowd out such prosocial motivations (Benabou & Tirole 2003). There is some evidence that nonmonetary incentives indeed increase the performance of workers in the not-for-profit sector. Ashraf et al. (2014) show that agents hired by a public health organization in Zambia perform better when offered nonmonetary incentives ("stars" for each condom pack sold) than when offered financial rewards. They also find suggestive evidence that social forces are relevant: The stars treatment appears more powerful when there are other nearby agents receiving the same treatment.

This raises the possibility that developing countries may reap high returns from building in nonmonetary incentives in their management of bureaucrats and frontline workers. Given the strength of local social networks in developing countries, nonfinancial incentives could be particularly effective when they include a social element.

5.3. Targeting Transfers

As discussed in Section 3, decentralization and community-based methods may achieve better targeting as a result of local informational advantages. Recent research suggests another dimension on which outcomes could be different under a community-based targeting scheme: Communities appear to have a different concept of poverty than one solely based on consumption. Alatas et al. (2012) examine a community-based targeting system in Indonesia in which communities explicitly ranked households from richest to poorest during a community meeting. The authors find that the community-based method performs slightly worse than the proxy means test measure in terms of predicting consumption but that community members are more satisfied with the resulting beneficiary list. They also find that the community ranking appears to adjust for earnings ability: Households headed by individuals with low education, widows, those with disabilities, and those with serious illnesses were categorized as poorer, conditional on actual consumption.

These results suggest two additional advantages of community-based targeting. First, Alatas et al.'s (2012) results provide at least suggestive evidence that communities are capable of targeting on ability, the first-best dimension on which to discriminate in all optimal tax models. Second, even targeting based on earnings ability arises from a particular conception of the social welfare function. Communities may have different or additional welfare criteria, which would be difficult for any rules-based program to replicate. One of the most striking findings of Alatas et al. is the remarkable degree of consensus around the community-based ranking, suggesting a broadly shared concept of welfare, however defined, within the community.

The examples in this section illustrate several ways in which nontraditional policy instruments may be used to raise revenue, improve public service delivery, and target resources toward desired beneficiaries. Much remains to be learned about the effectiveness and generalizability of such policies. Nevertheless, they raise the tantalizing possibility that policy makers may be able to make use of a wider range of tools, even conditional on a given information and enforcement environment, than previously thought. This suggests that developing countries may not want to focus their policies exclusively on looking more like developed countries; these alternative policy instruments may help to improve welfare in the transition.

6. CONCLUSION

What conclusions can we draw from the body of existing empirical evidence on decentralization in developing economies? And where should the field go from here? Overall, the evidence (to date) strongly suggests that there are benefits from provision decentralization. The limited direct evidence on decentralization reforms is supportive of the theoretical predictions that decentralization can better match service provision to local preferences and increase accountability, and the microevidence on mechanisms suggests that local informational advantages are indeed at work in improving outcomes. Various critics of decentralization highlight the potential problems of the limited capacity of local governments, as well as local corruption and the possibility of elite capture. The empirical evidence does indicate that all these issues are concerns at the local level. However, there is little evidence that centralized provision in these contexts can produce a preferable outcome in practice—in fact, there are very few studies that directly compare centralized and decentralized provision. We see this as an important direction for future research.

Perhaps the most striking difference in decentralization between developing countries and rich countries both today and historically is the presence of large fiscal gaps in developing countries. This means that the finance of local public goods deviates substantially from a system of efficiency-maximizing benefits taxes. In addition, there is evidence that finance through intergovernmental grants creates greater opportunities for rent-seeking behavior than does finance through local taxes.

This leads naturally to the question of why developing countries do not have greater fiscal decentralization. Much of the push toward decentralization in recent decades has been primarily on the expenditure side: Local revenue capacity in many developing countries remains weak. Interestingly, the informal local finance of local public goods is common throughout much of the developing world, but strong formal local tax systems have not generally emerged. We have put forward several potential explanations: limits on local taxing authority by central governments, a dependence on central revenue sources such as natural resources and foreign aid, a greater focus on redistribution, and historical legacies from factors such as colonial tax systems. However, direct empirical evidence on limits to local taxation—and on taxation in developing countries in general—remains relatively scarce. We see this as another important avenue for future research.

Finally, we would like to see more studies on the type of nontraditional policy instruments discussed in Section 5. From a decentralization policy perspective, it is important to understand how governments may be able to leverage these instruments to improve welfare as they seem naturally best implemented at the local level. From a research perspective, these studies raise important questions regarding how to think about the welfare consequences of socially motivated tax payments, nonfinancial public sector incentives, and even individuals' conception of the social welfare function.

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LITERATURE CITED

Acemoglu D, Johnson S, Robinson JA. 2001. The colonial origins of comparative development: an empirical investigation. *Am. Econ. Rev.* 91:1369–401

Alatas V, Banerjee A, Chandrasekhar AG, Hanna R, Olken BA, et al. 2013. *Does elite capture matter? Local elites and targeted welfare programs in Indonesia*. NBER Work. Pap. 18798

Alatas V, Banerjee A, Hanna R, Olken BA, Tobias J. 2012. Targeting the poor: evidence from a field experiment in Indonesia. *Am. Econ. Rev.* 102:1206–40

Alderman H. 2002. Do local officials know something we don't? Decentralization of targeted transfers in Albania. *J. Public Econ.* 83:375–404

Alesina A, La Ferrara E. 2005. Preferences for redistribution in the land of opportunities. *J. Public Econ.* 89:897–931

Ashraf N, Bandiera O, Jack K. 2014. *No margin, no mission? A field experiment on incentives for public service delivery*. Work. Pap., Harvard Bus. Sch., Boston, MA

Bagchi AK. 1988. Colonialism and the nature of 'capitalist' enterprise in India. *Econ. Polit. Wkly.* 23:PE38–50

Bahl R, Bird R. 2008. Subnational taxes in developing countries: the way forward. *Public Budg. Finance* 28:1–25

Baicker K, Clemens J, Singhal M. 2012. The rise of the states: U.S. fiscal decentralization in the postwar period. *J. Public Econ.* 96:1079–91

Banerjee A, Banerji R, Duflo E, Glennerster R, Khemani S. 2010. Pitfalls of participatory programs: evidence from a randomized evaluation in education in India. *Am. Econ. J. Econ. Policy* 2:1–30

Banerjee A, Duflo E. 2006. Addressing absence. *J. Econ. Perspect.* 20:117–32

Banerjee A, Hanna R, Mullainathan S. 2012. Corruption. In *The Handbook of Organizational Economics*, ed. R Gibbons, J Roberts, pp. 1109–47. Princeton, NJ: Princeton Univ. Press

Banerjee A, Iyer L. 2005. History, institutions and economic performance: the legacy of colonial land tenure systems in India. *Am. Econ. Rev.* 95:1190–213

Banerjee A, Pande R. 2009. *Parochial politics: ethnic preferences and politician corruption.* Discuss. Pap. 6381, Cent. Econ. Policy Res., London

Bardhan P. 2002. Decentralization of governance and development. *J. Econ. Perspect.* 16:185–205

Bardhan P, Mookherjee D. 2005. Decentralizing antipoverty program delivery in developing countries. *J. Public Econ.* 89:675–704

Bardhan P, Mookherjee D. 2006. Decentralization and accountability in infrastructure delivery in developing countries. *Econ. J.* 116:101–27

Barr A, Fafchamps M, Owens T. 2005. The governance of non-governmental organizations in Uganda. *World Dev.* 33:657–79

Benabou R, Tirole J. 2003. Intrinsic and extrinsic motivation. *Rev. Econ. Stud.* 70:489–520

Besley T, Burgess R. 2002. The political economy of government responsiveness: theory and evidence from India. *Q. J. Econ.* 117:1415–51

Besley T, Case A. 1995. Incumbent behavior: vote-seeking, tax-setting, and yardstick competition. *Am. Econ. Rev.* 85:25–45

Besley T, Coate S. 2003. Centralized versus decentralized provision of local public goods: a political economy approach. *J. Public Econ.* 87:2611–37

Besley T, Ghatak M. 2001. Government versus private ownership of public goods. *Q. J. Econ.* 116:1343–72

Besley T, Ghatak M. 2005. Competition and incentives with motivated agents. *Am. Econ. Rev.* 95:616–36

Besley T, Ghatak M. 2008. Status incentives. *Am. Econ. Rev.* 98:206–11

Besley T, Pande R, Rao V. 2012. Just reward? Local politics and public resource allocation in South India. *World Bank Econ. Rev.* 26:191–216

Besley T, Persson T. 2013. Taxation and development. In *Handbook of Public Economics*, Vol. 5, ed. AJ Auerbach, R Chetty, M Feldstein, E Saez, pp. 51–110. Amsterdam: North-Holland

Bird RM. 2011. Subnational taxation in developing countries: a review of the literature. *J. Int. Commerce Econ. Policy* 2:139–61

Bird RM, Smart M. 2002. Intergovernmental fiscal transfers: international lessons for developing countries. *World Dev.* 30:899–912

Bjorkman M, Svensson J. 2009. Power to the people: evidence from a randomized field experiment of a community-based monitoring project in Uganda. *Q. J. Econ.* 124:735–69

Brennan G, Buchanan JM. 1980. *The Power to Tax: Analytical Foundations of a Fiscal Constitution.* Cambridge, UK: Cambridge Univ. Press

Brollo F, Nannicini T, Perotti R, Tabellini G. 2013. *The political resource curse.* NBER Work. Pap. 15705

Burgess R, Stern N. 1993. Taxation and development. *J. Econ. Lit.* 31:762–830

Cage J, Gadenne L. 2014. *Tax revenues, development, and the fiscal cost of trade liberalization, 1792–2006*. Work. Pap., Univ. Coll. London

Chattopadhyay R, Duflo E, Fischer G. 2005. *Efficiency and rent seeking in local government: evidence from randomized policy experiments in India*. Work. Pap., Mass. Inst. Technol., Cambridge, MA

Coquery-Vidrovitch C. 1998. Le régime fiscal dans les colonies françaises, 1900–1960. In *La France et l'outre-mer, un siècle de relations monétaires et financières*, pp. 109–32. Paris: Com. Hist. Econ. Financ. Fr.

De Mello LR. 2000. Fiscal decentralization and intergovernmental fiscal relations: a cross-country analysis. *World Dev.* 28:365–80

Del Carpio L. 2013. *Are the neighbors cheating? Evidence from a social norm experiment on property taxes in Peru*. Work. Pap., Princeton Univ., Princeton, NJ

Dziobek C, Mangas CG, Kufa P. 2011. *Measuring fiscal decentralization: exploring the IMF's databases*. Work. Pap. 11/126, Int. Monet. Fund, Washington, DC

Ebel RD, Taliercio R. 2005. Subnational tax policy and administration in developing economies. *Tax Notes Int.* 37:919–36

Fabricant S, Lipsey RE. 1952. *The Trend of Government Activity in the United States Since 1900*. New York: Natl. Bur. Econ. Res

Faguet JP. 2004. Does decentralization increase government responsiveness to local needs? Evidence from Bolivia. *J. Public Econ.* 88:867–93

Faguet JP. 2008. Decentralisation's effects on public investment: evidence and policy lessons from Bolivia and Colombia. *J. Dev. Stud.* 44:1100–21

Ferraz C, Finan F. 2008. Exposing corrupt politicians: the effects of Brazil's publicly released audits on electoral outcomes. *Q. J. Econ.* 123:703–45

Ferraz C, Finan F. 2011. Electoral accountability and corruption: evidence from the audits of local governments. *Am. Econ. Rev.* 101:1274–311

Fisman R, Gatti R. 2002. Decentralization and corruption: evidence across countries. *J. Public Econ.* 83:325–45

Fjeldstad O, Therkildsen O. 2008. Mass taxation and state-society relations in East Africa. In *Taxation and State-Building in Developing Countries: Capacity and Consent*, ed. DA Bräutigam, O Fjeldstad, M Moore, pp. 114–34. Cambridge, UK: Cambridge Univ. Press

Forstater M. 2003. *Taxation: a secret of colonial capitalist (so-called) primitive accumulation*. Work. Pap. 25, Cent. Full Employ. Price Stab., Univ. Mo., Kansas City

Gadenne L. 2012. *Three essays on public finance in developing countries*. PhD Thesis, Paris Sch. Econ.

Gadenne L. 2013. *Tax me, but spend wisely: sources of public finance and government accountability*. Work. Pap., Univ. Coll. London

Galasso E, Ravallion M. 2005. Decentralized targeting of an antipoverty program. *J. Public Econ.* 89:705–27

Galiani S, Gertler P, Schargrodsky E. 2008. School decentralization: helping the good get better, but leaving the poor behind. *J. Public Econ.* 92: 2106–20

Gardner LA. 2010. Decentralization and corruption in historical perspective: evidence from tax collection in British colonial Africa. *Econ. Hist. Dev. Reg.* 25:213–36

Gordon RH. 1983. An optimal taxation approach to fiscal federalism. *Q. J. Econ.* 98:567–86

Gordon RH, Li W. 2009. Tax structures in developing countries: many puzzles and a possible explanation. *J. Public Econ.* 93:855–66

Himanshu, Sen A. 2013. In kind food transfers—II: impact on nutrition and implications for food security and costs. *Econ. Polit. Wkly.* 48:60–73

Inman RP, Rubinfeld DL. 1996. Designing tax policy in federalist economics: an overview. *J. Public Econ.* 60:307–34

Int. Monet. Fund. 2009. *Macro policy lessons for a sound design of fiscal decentralization*. Rep., Int. Monet. Fund, Washington, DC

Int. Monet. Fund. 2012. *Fiscal regimes for extractive industries: design and implementation*. Rep., Int. Monet. Fund, Washington, DC

Keen M. 2012. *Taxation and development—again*. Work. Pap. 12/220, Int. Monet. Fund, Washington, DC

Khan A, Khwaja A, Olken B. 2013. *Tax farming redux: experimental evidence on incentive pay for tax collectors*. Work. Pap., Harvard Univ., Cambridge, MA

Khwaja AI. 2009. Can good projects succeed in bad communities? *J. Public Econ.* 93:899–916
Kis-Katos K, Sjahrir BS. 2014. *The impact of fiscal and political decentralization on local public investments in Indonesia*. Discuss. Pap. 7884, Inst. Study Labor, Bonn, Ger.
Leicester A, Levell P, Rasul I. 2012. *Tax and benefit policy: insights from behavioural economics*. Rep., Inst. Fisc. Stud., London
Litschig S, Zamboni Y. 2013. *Audit risk and rent extraction: evidence from a randomized evaluation in Brazil*. Econ. Work. Pap. 1270, Dep. Econ. Bus., Univ. Pompeu Fabra, Barcelona
Maddison A. 2008. *Statistics on world population, GDP and per capita GDP*, 1–2008 AD. **http://www.ggdc.net/MADDISON/Historical_Statistics/horizontal-file_02-2010.xls**
Martinez-Vazquez J, McNab RM. 2003. Fiscal decentralization and economic growth. *World Dev.* 31:1597–616
Miguel E, Gugerty MK. 2005. Ethnic diversity, social sanctions, and public goods in Kenya. *J. Public Econ.* 89:2325–68
Mitchell BR. 1988. *British Historical Statistics*. Cambridge, UK: Cambridge Univ. Press
Muralidharan K, Niehaus P, Sukhtankar S. 2014. *Payments infrastructure and the performance of public programs*. Work. Pap., Dartmouth Coll., Hanover, NH
Musgrave RA. 1959. *The Theory of Public Finance*. New York: McGraw-Hill
Niehaus P, Sukhtankar S. 2013. The marginal rate of corruption in public programs. *J. Public Econ.* 104:52–64
Oates WE. 1972. *Fiscal Federalism*. New York: Harcourt Brace
Oates WE. 1985. Searching for Leviathan: an empirical study. *Am. Econ. Rev.* 75:748–57
Oates WE. 2005. Toward a second-generation theory of fiscal federalism. *Int. Tax Public Finance* 12:349–73
Olken BA. 2006. Corruption and the costs of redistribution: micro evidence from Indonesia. *J. Public Econ.* 90:853–70
Olken BA. 2007. Monitoring corruption: evidence from a field experiment in Indonesia. *J. Polit. Econ.* 115:200–49
Olken BA, Barron P. 2009. The simple economics of extortion: evidence from trucking in Aceh. *J. Polit. Econ.* 117:417–52
Olken BA, Pande R. 2012. Corruption in developing countries. *Annu. Rev. Econ.* 4:479–505
Olken BA, Singhal M. 2011. Informal taxation. *Am. Econ. J. Appl. Econ.* 3:1–28
Pommerehne WW. 1977. Quantitative aspects of federalism: a study of six countries. In *The Political Economy of Fiscal Federalism*, ed. WE Oates, pp. 275–355. Lexington, MA: Heath-Lexington
Reinikka R, Svensson J. 2004. Local capture: evidence from a central government transfer program in Uganda. *Q. J. Econ.* 119:678–704
Reinikka R, Svensson J. 2011. The power of information in public services: evidence from education in Uganda. *J. Public Econ.* 95:956–66
Rush JR. 2007. *Opium to Java: Revenue Farming and Chinese Enterprise in Colonial Indonesia, 1860–1910*. Singapore: Equinox
Seabright P. 1996. Accountability and decentralization in government: an incomplete contracts model. *Eur. Econ. Rev.* 40:61–89
Shah A, ed. 2006. *Local Governance in Developing Countries*. Washington, DC: World Bank
Shleifer A, Vishny RW. 1993. Corruption. *Q. J. Econ.* 108:599–617
Skinner J. 1991. If agricultural land taxation is so efficient, why is it so rarely used? *World Bank Econ. Rev.* 5:113–33
Skoufias E. 2005. *PROGRESA and its impacts on the welfare of rural households in Mexico*. Res. Rep. 39, Int. Food Policy Res. Inst., Washington, DC
Slemrod J. 2007. Cheating ourselves: the economics of tax evasion. *J. Econ. Perspect.* 21:25–48
Soares S. 2012. *Bolsa Família: a summary of its impacts*. Work. Pap., Int. Policy Cent. Incl. Growth, Brazil
Tiebout CM. 1956. A pure theory of local expenditures. *J. Polit. Econ.* 64:416–24
United Nations. 2009. *International Guidelines on Decentralization and Access to Basic Services for All*. Nairobi: UN-HABITAT
US Census Bur. 2010. *Annual Survey of State and Local Government Finances and Census of Governments (1902–2008)*. US Census Bur., Washington, DC

Wallis JJ, Oates WE. 1988. Does economic sclerosis set in with age? An empirical study of the Olson hypothesis. *Kyklos* 41:397–417

Weingast BR. 2009. Second generation fiscal federalism: the implications of fiscal incentives. *J. Urban Econ.* 65:279–93

Werker E, Ahmed FZ. 2008. What do nongovernmental organizations do? *J. Econ. Perspect.* 22:73–92

World Bank. 1997. *World Development Report 1997: The State in a Changing World*. Washington, DC: World Bank

World Bank. 1999. *World Development Report 1999/2000: Entering the 21st Century—The Changing Development Landscape*. Washington, DC: World Bank

World Bank. 2002. *Decentralization in Africa: a stocktaking survey*. Afr. Reg. Work. Pap. 40, World Bank, Washington, DC

World Bank. 2004. *World Development Report 2004: Making Services Work for Poor People*. Washington, DC: World Bank

World Bank. 2009. *World Development Indicators*. Washington, DC: World Bank