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International Center for Public Policy
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Increasing Tax Collections by Local Governments in Developing Countries by Improving Tax Compliance

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December 2024

Abstract

When discussing local government taxation in developing countries, it is impossible to avoid the conclusion that most all local governments in most all developing countries around the world simply fail to collect taxes in amounts sufficient to provide desired and needed government services. What accounts for this failure? And what can be done to address this failure? It is these two basic questions what we seek to address – if not necessarily to answer – here. Our first conclusion is an obvious and well-known one: the main reason for low tax collections is that local governments in developing countries have been assigned largely unproductive tax sources, taxes that are often difficult to administer, lack buoyancy, and allow little discretion to local governments. Our second conclusion may seem less obvious and in fact is driven largely by results from the tax compliance literature: tax collections, especially property tax collections, can be increased by local government policy initiatives that increase tax compliance by improving citizen trust in government, and these initiatives can be implemented quickly and effectively in many if not all settings. In the process we also discuss several other dimensions of local taxation in developing countries.

Keywords: decentralization; tax assignment; tax compliance and evasion; trust

JEL Codes: H26, H71, H77

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1. Introduction

When discussing local government taxation in developing countries, a common refrain is the low level of taxes collected by local governments. Whether one looks at total local own taxes, local own taxes per capita, local own taxes as a percent of Gross Domestic Product (GDP), local own taxes a percent of central government taxes, or virtually any other metric, it is impossible to avoid the conclusion that most all local governments in most all developing countries around the world simply fail to collect taxes sufficient to provide desired and needed local government services.

What accounts for this failure? And what can be done to address this failure? It is these two basic questions what we seek to address – if not necessarily to answer fully – here. Our first conclusion is an obvious and well-known one: *the main reason for low tax collections is that local governments in developing countries have been assigned largely unproductive tax sources*, taxes that are often difficult to administer, lack buoyancy, and allow little discretion to local governments. Our second conclusion may seem less obvious and in fact is driven largely by results from the tax compliance literature: *tax collections, especially property tax collections, can be increased by local government policy initiatives that increase tax compliance by improving citizen trust in government, and these initiatives can be implemented quickly and effectively in many if not all settings*. In the process we also discuss several other dimensions of local taxation in developing countries.[1]

[1] For convenience, we refer to any and all subnational governments as "local" governments, recognizing that there are multiple levels of subnational governments (e.g., state, provincial, county, city, village, and the like). When relevant, we specify more precisely the exact level of subnational government.

2. THE THEORY AND PRACTICE OF LOCAL GOVERNMENT TAX ASSIGNMENT[2]

The design of any system of intergovernmental fiscal relations involves several main elements. There must be an assignment of expenditure responsibilities among and between the various levels of government; there must be an assignment of revenue responsibilities among and between the levels of government; and there must be the design of a system of transfers among and between the levels of government. Underlying all of these decisions is the notion that any potential gains from these assignments requires some degree of local government autonomy, including such institutional features as: a locally elected council; local appointment of local officers; a locally approved budget; the absence of (unduly burdensome) central government mandates on the local government; some local government control of revenues; some local government power to borrow; a transparent grant system; clear expenditure assignments; a local government capacity to collect taxes, to deliver services, and to maintain adequate records; a central government ability to monitor; and the like.

We focus here on revenue assignments to local governments. We start with the theory of local government tax assignment, and we then look briefly at the practice of tax assignment.

2.1. The Theory of Local Government Tax Assignment

We begin here by discussing some <u>general</u> principles of tax assignments, and we then consider some <u>specific</u> aspects of these principles, both of which provide a useful point of departure for our later discussion.[3]

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[2] The literature on fiscal federalism is enormous and still growing. For representative and comprehensive discussions, see Oates (1972, 1999, 2005), Tanzi (1996), Ter-Minassian (1997), Bird and Vaillancourt (1998), Litvack, Ahmad, and Bird (1998), Martinez-Vazquez, McLure, and Vaillancourt (2006), Shah (2006), and Boadway and Shah (2009), among many others.

[3] On tax assignments, see especially Musgrave (1983), McLure (1983, 1994, 2000), Bahl and Linn (1992), Bahl and Bird (2008a, 2008b), and Bird (1993, 1999, 2009, 2011), and Mikesell (2007) for more detailed discussions of these guidelines.

Regarding general principles of revenue assignments, a first principle is that the notion of *Subsidiarity* in taxation should be followed; that is; a tax should be assigned to the lowest level of government that can implement and administer the tax. What this principle suggests in practice is that only the central government should impose progressive income taxes. Given the potential mobility of factors of production, local government attempts to redistribute income by progressive income taxes will lead to the out-migration of mobile, higher-income individuals, thereby leaving immobile, lower income individuals to bear the burden of the taxes. Given also that income is distributed unequally across jurisdictions, local government use of any income taxes would lead to significant fiscal disparities across jurisdictions, again leading to the conclusion that it is only the central government that should impose income taxes, using the revenues from these taxes to correct for *Vertical Imbalances* (e.g., between the national and the subnational governments) and for *Horizontal Imbalances* (e.g., between the subnational governments). Intergovernmental transfers should also be used to help finance those services that generate spillovers to nearby jurisdictions because strictly local finance will lead to inefficient provision, and to finance the provision of local services that are consistent with any national objectives pursued at the local government level. Given finally that income taxes are thought to be effective countercyclical instruments, macroeconomic goals are best pursued by national government policies.

The principle of *Subsidiarity* also means that local governments should rely predominately upon user charges and taxes on immobile tax bases. Specifically, user charges should be used to finance goods that provide measurable benefits to identifiable individuals within a single jurisdiction, and taxes on immobile bases should be used to finance local services for which it is difficult to identify individual beneficiaries and to measure individual costs and benefits.

A second principle is that local governments should be assigned adequate sources of revenues consistent with their expenditure responsibilities. Further, local governments should have enough discretion over the rate of some taxes to promote accountability of local officials and to establish a link between the demand for service and the cost of service provision.

A third principle is that all governments – especially local governments – must be held accountable for their fiscal decisions. In particular, this means that local governments must face a *Hard Budget Constraint*.

In short, these general principles lead to the conclusions that local governments should rely as much as possible on benefit taxation (e.g., user charges), that when necessary local governments should use mainly non-benefit taxes imposed on immobile tax bases, and that local governments should avoid as much as possible taxes on mobile tax bases.

In practice, few countries rigidly or religiously follow these general guidelines, although the broad pattern of tax assignment is often largely consistent – if also wildly variable – with these prescriptions. Indeed, around the world there are essentially two basic models of revenue assignment that attempt to satisfy these principles. In what might be called the Western or Anglo-Saxon model of *Fiscally Strong Local Governments* (e.g., the United States, Canada, and others), local governments independently legislate and administer their own taxes, an approach that obviously gives local governments significant fiscal autonomy and adequacy. However, this model is probably not appropriate for countries with a unitary government, and it is certainly not appropriate given the severe administrative limitations on local governments in many developing countries. Instead, in many other countries the model is one of *Fiscally Weak Local Governments* that do not generate much revenues from their own sources, that do not independently legislate and administer their own taxes, but that are often allowed to add a local tax onto the back of some existing central government tax. This approach is being increasingly used as part of decentralization reforms around the world.

As for more specific guidelines on local government use of taxes, it is useful to examine in more detail the major types of taxes that are used by local governments. Ideal candidates for local government taxes are those taxes that (Bahl and Bird, 2008a, 2008b):

- Have a relatively immobile tax base;
- Generate an adequate yield with sufficient buoyancy;
- Have a stable and predictable yield;
- Have a limited degree of exportability to taxpayers outside the local government;
- Are visible to local taxpayers in order to ensure political accountability;
- Are perceived as fair, however fairness is defined;
- Are easy to administer and to comply with (e.g., administrability, simplicity);
- Have limited scope for tax competition between local governments;
- Reflect the costs of service provision (and of congestion); and
- Reflect the benefits received from local services.

Suitable candidates that generally meet these requirements include: user charges (service/license/registration fees, public utility charges/admission charges, specific benefit charges); a motor vehicle tax; excise taxes; local surcharges on central government income and/or sales taxes; and, especially, the local property tax. Even broad-based local taxes like sales taxes, gross receipts taxes, payroll taxes, and local business taxes have had some success in some settings (Bird, 2009; Martinez-Vazquez, 2013). Consider each candidate separately.

A basic source of local government revenues is user charges. These charges are consistent with the *Benefit Principle* of taxation; that is, individuals should pay taxes in accordance with the benefits they receive from public services. The implication is that user charges should be used to finance specific benefits whenever possible, by the use of service/license/registration fees, public utility charges/admission charges, and specific benefit charges (e.g., special assessments, land value increment taxes, improvement taxes, front footage levies, supplementary property taxes like street lighting.

Relatedly, many local governments impose taxes on automobile ownership and use, such as an annual license tax, a registration fee, a transfer tax, a parking fee, tolls, and, at times, a fuel tax (although most countries reserve fuel taxes for central government use). Automobile-related taxes are an especially useful potential source of revenues for local governments. Because car ownership is concentrated in upper income classes, automotive taxes are likely to increase the progressivity of local government finances. Given that automobile use rises with income, its revenues are likely to grow steadily with urban growth. The taxes can be administered at relatively low cost. They can be used for general financing, but they can also be earmarked to finance road construction and maintenance and to decrease congestion and pollution in urban areas. However, with a few exceptions, these taxes are a significantly underused source of revenue.

There are several indirect taxes that are potential revenue sources for municipal governments. Local governments often impose a range of specific excise taxes, sometimes called sumptuary taxes, on commodities like beer, liquor, and tobacco. These taxes generate substantial revenues, they are easy to collect, and they may well discourage consumption of harmful or so-called immoral commodities (or sin taxes). However, such taxes are also unlikely to grow much over time, they are highly regressive, they may not discourage consumption if consumers are unresponsive to price changes, and their use is clouded by the possibility of individuals buying commodities (or smuggling them from) outside the boundaries of the taxing jurisdiction. Furthermore, collection of excise taxes tends to be concentrated at borders or factory locations, so that they are often unevenly distributed across local governments.

It is possible that local governments could obtain some revenues from, say, a central government sales tax, by adding a surtax onto the central government rate, by sharing a specified percentage of the national government collections, or by having a separate retail sales tax. Given limited options for alternative tax bases in many developing countries, such options merit some consideration.

Some other indirect taxes are not suitable candidates for local government use. These include import duties, manufacturing sales taxes, value added taxes, and other broad-based sales taxes. These taxes are typically reserved for use by higher levels of government. The administration of a value added tax by local governments is especially complicated and should not be seriously considered, given the usual methods of calculation and given also the typical limitations of local government administrative capabilities. Value added taxes are also not in general suitable for revenue sharing because debiting and crediting of the tax tends to be uneven across regions, although there are recent exceptions that demonstrate the possibility of subnational value added taxes in some circumstances. However, as discussed later, while local sales tax on goods and services are not considered good taxes for local governments, they are often a dominant source of all local tax revenue collected n a wide variety of high income, upper middle income, and low income countries around the world.

Local governments use numerous miscellaneous taxes and fees, which in some cases may be quite important in their finances. For example, many governments impose taxes on various forms of entertainment (e. g., restaurants, hotels, movies, and gambling). Municipal governments also employ a wide variety of nuisance taxes. These include stamp duties, license fees, and various minor taxes on advertisements, construction activities, nonmotorized vehicles, and the like. These taxes do not rate highly in revenue performance, administrative ease, and efficiency and distributional effects; they also are seldom an important source of revenues. However, they are likely to continue to be used.

Few local governments in any country impose an income tax (individual or business), at least one administered entirely by the local government itself. An income tax is difficult to administer at the local level, and the national government is seldom willing to share the income tax base with local governments. Given the potential mobility of individuals and firms, the imposition of a local income tax would likely generate significant distortions in resource use. Also, given the predominant use of income taxes for stabilization ends, these taxes should be reserved primarily for central government use.

However, it is not uncommon for local governments to impose a surtax, or an additional local government tax, on a national government income tax, and the use of such a piggyback income tax is a common practice in Scandinavian and Central European countries. There are a number of reasons for caution in the use of a local government piggyback income tax. A local government income surtax could generate distortions in resource use, as individuals move to avoid paying the tax and as local governments compete with one another by changing the tax rate. A local government piggyback income tax could also complicate the use of income taxes for stabilization purposes. The fiscal capacity of a local income surtax will differ greatly across local governments. The central government may be unwilling to share an income tax base with local governments, especially if (as should happen) the central government has to lower its tax rates to allow local governments to piggyback without an overall increase in the tax burden. Still, there are some clear advantages to local surtaxes. The central government administers the tax, thereby avoiding unnecessary duplication of administrative efforts. The central government also retains the authority to define the tax base, which reduces locational distortions from mobile factors and which also reduces interferences of local governments in national stabilization policies, even if these coordination problems are not eliminated. Importantly, local governments are often given some discretion in choosing tax rates, within some lower and upper bounds, and this choice enhances their ability to make effective fiscal decisions. Some of these same goals can also be achieved by tax sharing among governments, although tax sharing does not typically give local governments any real authority in the selection of local tax rates and therefore does not promote accountability and efficiency in local expenditures. Surcharges have been increasingly recommended as part of decentralization efforts, especially in countries where it is necessary to find some fast and sustainable way to give cities a significant fiscal capacity.

Finally, and of most relevance for our discussion here, the property tax in its many variants is a common and important tax for local governments, especially those in the Western or Anglo-Saxon tradition such as the case of Pakistan (and specifically in Punjab), even though property taxes are severely under-utilized in most developing countries. The property tax is in many ways an attractive revenue source. If measured properly, its base should increase with urban growth. Because property can be assessed by physical inspection, the tax is difficult to evade. There is much evidence that the tax has at least a proportional and often a progressive effect upon the distribution of income. The tax is unlikely to create serious distortions in land markets, and may in some circumstances actually improve the efficiency of resource use. Finally, it is sometimes argued that the property tax is most appropriately administered at the local government level because officials there have a better motivation to collect the tax and because the tax can be viewed in part as payment for local services.

However, there are also major difficulties with the property tax, especially in developing countries. The revenue potential of the property tax is seldom realized, due largely to significant administrative problems in identifying properties, valuing them, adjusting valuation over time, collecting revenues, and enforcing penalties. A particular problem is valuation. Property transactions do not occur at regular intervals, which makes it necessary to impose the tax on some estimate of each property's value, and also makes it necessary to use some method to adjust this value over time for changes in prices. Unfortunately, there are few good procedures for such valuation. Experience also demonstrates that it is especially difficult to generate major amounts of additional new revenues from the property tax via short term reforms. The property tax is also often rated by individuals in polls as among the least popular of all taxes. It is a highly visible tax to taxpayers, since the tax is typically paid directly by taxpayers rather than by the employer (as with source-withholding of individual income taxes) or by the firm (as with firm payment of sales and excise taxes). Administration of the tax is often highly arbitrary and idiosyncratic, especially in the procedures used to determine the value of properties; when the procedures used to generate this assessed value are performed incompetently, even corruptly, individuals rightly perceive the tax as unfair. The tax base is typically distributed across local governments in very uneven ways, thereby contributing to extreme fiscal disparities across jurisdictions (or horizontal imbalances). Perhaps as a result, the property tax is often seen by individuals as a regressive tax, one in which greater burdens are imposed on lower- than on higher-income households, even though the theory of tax incidence generally concludes that the property tax is borne in large part by the owners of capital. Local governments often have little incentive to raise property taxes in part for political and bureaucratic reasons. All of these issues are well-known, but this recognition has done little to improve the administration, or increase the use, of the tax, even in wealthy countries. Indeed, the property tax is often criticized, but it seems to change very little over time.

Table 1 provides a brief summary of “good” and “bad” taxes for assignment to local governments; see Bird (2009) and Martinez-Vazquez (2013) for a more detailed scorecard.

Table 1. Candidates for Tax Assignment to Local Governments in Developing Countries

Tax Instrument	“Good” or “Bad” Candidate for Local Governments?
User Charges	Good
Property Tax	Good
Excises	Good (especially vehicle-related excises)
Miscellaneous Fees/Charges	Good (especially externality- and benefit-related fees/charges)
Individual Income Tax	Bad, but “piggyback” local surtax may be suitable
Payroll Tax	Bad, but piggyback local surtax may be suitable
Sales Taxes	Bad, but “piggyback” local surtax may be suitable
Value Added Tax	Bad, but “piggyback” local surtax may be suitable
Business Tax	Bad

These general and specific guidelines are found in some form or another in most all discussions of revenue assignment. Whether the practice of tax assignment that we observe around the world is actually attributable to the musing of economists is of course debatable. Regardless, the practice of tax assignment in many countries around the world is broadly – if quite variably – consistent with these guidelines.

Unfortunately, the result of this assignment is that local governments are seldom assigned any productive taxes, given that local taxes on mobile tax bases like labor, capital, income, and sales are largely prohibited and that all that is left to local governments are relatively unproductive revenue sources (e.g., user charges, fees, nuisance taxes, sales taxes) and relatively hard to administer taxes (e.g., the property tax). Indeed, these guidelines almost inevitably create an imbalance between the expenditure and revenue assignments of local governments that is, as Bird (2008) and others have emphasized, both economically undesirable and politically unsustainable. As we discuss next, the actual practice of revenue assignment clearly demonstrates this imbalance.

2.2. The Practice of Local Government Taxation in Developing Countries

Tables 2, 3, 4, and 5 present some tabulations of various measures of fiscal decentralization for selected samples of low income (or developing) countries and high income (or developed) countries in the decade of the 2010s, using data from International Monetary Fund (IMF) and World Bank publications.

As can be seen from Table 2, there is much variation in what constitutes local government taxes in our sample of upper middle income countries and low income countries, both in the composition and in the magnitude of local revenues. For example, Panama (a high income country) collects all of its local tax revenue from taxes on goods and services, while in Mexico and South Africa (both upper middle income countries) property taxes constitute 67 percent and 99 percent of all local tax revenue, respectively, while taxes on goods and services account for only 1 percent of local tax revenue for both countries. In low income countries such as Pakistan, Somalia, and Burkina Faso, local governments rely on taxes on goods and services for a large percentage of their local tax revenue.

Table 3 clearly shows that subnational governments collect much smaller amounts of taxes than the central government, both in the low and high income countries in our sample. Of note, property taxes account for a somewhat higher percent of subnational government expenditures in low income developing countries than in high income developed countries (Table 4). Overall, the shares of local governments in the main taxes are on average much the same between low and high income countries (Table 5), at least for our sample of countries, although these averages mask considerable variation across countries. Local governments collect very little of the main sources of tax revenues, with the obvious exception of the property tax.

Table 2. Contribution of Property Taxes and Tax on Goods and Services in Local Tax Collections

Economy	World Bank Income Classification	Year and Scale (Local Currency)	Tax Revenue From Local Government	Tax Revenue From Federal Government	Grants from Federal Government	Local Government Property Taxes	Local Government Taxes on Goods and Services	Other Taxes	Percent Property Taxes in Local Taxes	Percent Taxes on Goods and Services in Local Taxes	Percent Grant to Local Tax Revenue Collected
Chile	High Income	2022 – Billions	4,342	56,128	5,107	2,064	2,278	-	48%	52%	118%
Panama	High Income	2021 – Millions	129	5,028	182	-	129	-	0%	100%	141%
Colombia	Upper Middle Income	2022 – Billions	37,440	222,978	61,177	13,629	21,958	1,841	36%	59%	163%
Costa Rica	Upper Middle Income	2022 – Billion	314	6,311	145	145	156	9	46%	50%	46%
Mexico	Upper Middle Income	2022 – Million	86,740	3,957,631	386,325	57,903	860	27,969	67%	1%	445%
Brazil	Upper Middle Income	2022 – Billions	198	1,484	726	79	120		40%	61%	367%
Namibia	Upper Middle Income	2022- Millions	1,266	55,850	215	-	-	-	0%	0%	17%
Paraguay	Upper Middle Income	2022 – Billions	1,094	29,961	1,304	540	463	90	49%	42%	119%
South Africa	Upper Middle Income	2022 – Billions	89	1,685	163	88	1	-	99%	1%	183%
Nepal	Low Middle Income	2021 – Million	90,690	761,056	312,919	25,892	60,618	3,503	29%	67%	345%
Pakistan	Low Middle Income	2020 – Million	413,617	4,334,185	76,389	9,651	232,969	86,227	2%	56%	18%
Guatemala	Lower Middle Income	2022 – Millions	3,206	87,584	12,185	1,554	1,531	119	48%	48%	380%
Honduras	Lower Middle Income	2020 – Millions	4,305	86,485	6,876	4,305	-	-	100%	0%	160%
Kenya	Lower Middle Income	2021 – Billions	16	1,594	398	-	-	-	0%	0%	2488%
Rwanda	Low Income	2020 – Billions	27	1,446	475	9	5	-	33%	19%	1759%
Uganda	Low Income	2022 – Billions	71	20,424	4,882	20	24	26	28%	34%	6876%
Somalia	Low Income	2020 – Millions	9	139	40	2	6		21%	61%	444%
Burkina Faso	Low Income	2022 – Billions	2	2,074	100	0	2	0	4%	91%	6024%

Source: Authors' calculations from various IMF and World Bank publications.

Table 3. Subnational Government Taxes in Low and High Income Countries in the 2010s

	Subnational Taxes as Percent of Total Government Taxes	Subnational Taxes as Percent of GDP
Low Income Countries	8.9% (27)	1.1% (27)
High Income Countries	24.2% (29)	4.8% (29)

Source: Authors' calculations from various IMF and World Bank publications. Numbers in parentheses are the number of countries used in the calculations.

Table 4. Subnational Government Property Taxes in Low and High Income Countries in the 2010s

	As Percent of Total Subnational Government Expenditures	As Percent of GDP
Low Income Countries	19.6% (27)	0.2% (27)
High Income Countries	11.9% (29)	1.8% (29)

Source: Authors' calculations from various IMF and World Bank publications. Numbers in parentheses are the number of countries used in the calculations.

Table 5. Percent of Subnational Governments in Total Taxes, Income Taxes, Indirect Taxes, and Property Taxes in Low and High Income Countries in the 2010s

	Total Taxes	Taxes on Income	Indirect Taxes	Property Taxes
Low Income Countries	26% (24)	11% (24)	8% (24)	88% (24)
High Income Countries	29% (26)	18% (26)	15% (26)	81% (26)

Source: Authors' calculations from various IMF and World Bank publications. Numbers in parentheses are the number of countries used in the calculations.

Overall, the picture of local government taxes that emerges from these tables is one in which local governments collect considerably less revenues than central governments both in developing and developed countries; that property taxes tend to be somewhat more important to local governments in developing countries than in developed countries; that property taxes generate much less in revenues in developing countries than in developed countries; and that overall the tax structures in both sets of countries tend to be broadly similar. Note again, however, that there is considerable variation across countries that is hidden by a focus on averages.

We have also compiled data from the IMF and the World Bank on the composition of tax revenues, which highlight the percentage of local tax revenue to central government tax revenue and the contribution of grants to local governments as a percentage of local revenues collected. Even with these data, the patterns are essentially unchanged. It is evident that local governments in developing countries contribute very little to overall tax revenues of the country. Indeed, grants to local governments are often much higher than the local tax revenues, and this "dependency of finances" on central governments has been highlighted by Sun and He (2018) as one of the reasons for complacency in tax collections by local governments in countries across the world and one of the factors that significantly undermine the benefits of fiscal decentralization wherever it exists. Another notable aspect of these data is that we can compare and contrast the different features within government tax structures to see what may be the causes of low local tax revenue collections. For example, in the case of low income countries like Somalia and Burkina Faso, a local tax base that relies more heavily on sales taxes on goods and services tends to be an indicator of high local tax to federal tax collection, but only if central government transfers are not excessive. Similarly, in high income and upper middle income countries such as Chile, Colombia, and Brazil, it appears that a relatively well-balanced reliance on both property taxes and taxes on goods and services generates a higher percentage of local tax revenues to federal revenues collected.

However, one should not rely too heavily on the accuracy of these tabulations. The specific numbers are sensitive to the specific sample of countries and to the specific period of observations, and it is well-known that these data (especially at the subnational level) are not entirely reliable. All of these factors make research in developing countries in general, and research on subnational governments in developing countries in particular, a challenge. Even so, the picture that emerges here is a common and a familiar one: the typical practice of local governments is that they raise very little tax revenues of their own and that the property tax is (despite its low yield) their main local tax instrument.

3. Why Are Local Government Tax Collections in Developing Countries So Low?

There are many suggested explanations for these low levels of local government tax collections. These explanations capture multiple dimensions – economic, political, and social.[4]

A common explanation is that elected politicians do not raise taxes because they fear a negative reaction from voters. This is a typical explanation, with at least some validity. Ultimately, the choice of how much (and how) to tax is a political decision, and many voters are resistant to paying taxes. Even so, it is not uncommon for elected politicians to raise taxes without voter reprisals, as long as the elected officials are able to link the higher taxes with greater services, so that citizens see that they are getting something in return for more taxes.

Another common explanation is that tax collections are low in developing countries because people have so little income (and are already overtaxed). Now there is no question that in many developing countries the constituents of local governments often have very low incomes, and these income levels imply that the *level* of collections (say, on a per capita basis) must be low. However, this does not mean that collections as a *percent of income* must also be low. There are numerous examples of developing countries that demonstrate that local taxes as a

[4] For additional discussion of the reasons for real-world patterns of taxes in developing countries, see Gordon and Li (2009), Bird (2009, 2011), Bahl (2011, 2014), and Besley and Persson (2014).

percent of income can be increased to relatively high levels, even if not necessarily to levels attained by developed countries.

Many other explanations are possible – and somewhat more plausible.

One factor is that the capabilities of the local government tax administration may be limited, making the collection of most any tax (especially the property tax) difficult. Penalties on late payment or on nonpayment of tax liabilities may be infrequently imposed, and the government itself may often be a major tax delinquent for at least some taxes. Arrears may go uncollected, and the billing and payment process may be cumbersome and outdated. Appeals may be frequent, which slow collections. The potential of new technology (e.g., computers, artificial intelligence) may be imperfectly realized. The tax bases may be enormously undervalued, may not include many taxable items, and may not be adjusted in a timely way. Limited administrative capabilities also mean that local governments may find it difficult to pursue, to detect, and to penalize the "hard-to-tax" sector and other types of tax evaders.

Related to poor tax administration, there may be much corruption in local government tax administration, which obviously reduces tax collections and likely also reduces citizen willingness to pay taxes. The main causes of public corruption likely include the nature of the regulatory environment, the lack of transparency in government, the influence of powerful business interests, low salaries for public servants, weaknesses in the legal framework, and the self-sustaining cycle of corruption.

The World Bank *Ease of Doing Business* dataset for 2023 provides some support for these explanations. This dataset contains features of governments, their administrative capabilities, the overall design of the tax administrative functions (including delays in issuance of refunds, especially VAT refunds), and the perception of the general public toward the administration of the tax governments in various countries. These data demonstrate that even within low middle income to upper middle income, the processes and administrative capabilities vary significantly across countries. For example, a measure of how well these countries have realized the potential of technology in their revenue functions can be judged by the percent of firms paying taxes electronically. This indicator score is much lower for low income countries compared to high income countries, the latter of whom have close to a perfect score of 100 meaning that all firms are successfully able to file their taxes electronically. Given that firms in almost all countries remit the largest amount of tax revenue, it will be reasonable to expect efficient revenue administrations to ensure that firms file electronically because this helps ensure relatively error-free tax filing and it is also easier to assess and maintain.

Still another explanation is that local governments may have little ability to change important features of their taxes, such as tax bases and, especially, tax rates. In inflationary environments, the inability to adjust tax rates with inflation will quickly erode real tax revenues. Indeed, in many cases local officials have little autonomy in their choice of taxes rates or tax bases because any changes must be approved by central government officials.

Also, local government officials may have little incentive to collect all possible taxes. They may not be penalized in any meaningful way for any failure to collect budgeted revenues or to achieve target levels of collections. Similarly, they may not be rewarded in any real way for their success in collecting additional revenues, especially if they are not able to keep any additional taxes that they collect.

Relatedly, the formulae for intergovernmental transfers may not provide appropriate incentives for tax collections; that is, grant formulae may include measures of tax effort as a positive inducement for additional tax collections, so the absence of tax effort measures in the formulae mean the absence of incentives for additional collections. Indeed, local governments may well become overly dependent on central government transfers, and local governments may feel that they will be bailed out by the central government if they fall into fiscal deficit. We find some informal support for this notion by comparing the percentage of grants to local taxes, where a percentage greater than 100 percent means that grants given to the local government are in excess of the local tax revenue collected. This comparison demonstrates an almost inverse relationship between the burden of compliance and grants received by the local governments.

Overall, we find some limited support for these explanations of why local tax effort is low, again from the World Bank *Ease of Doing Business* dataset for 2023. If we use the variable "Hours spent on tax compliance annually" as a proxy for how poor are the compliance mechanisms of local governments and if then we link this variable directly to the amount of grant money they received from the central government, we see that the absence of local tax effort, which might imply a cumbersome compliance procedure, translates into an absence of incentive to collect higher tax revenues.

Broader factors include tax competition with other local governments, either within the same country or across countries. Tax competition between a country's local governments means that each local government must compete with other jurisdictions for mobile tax bases by lowering taxes on these tax bases. Globalization has a similar if larger impact because it reduces the ability of a local government in one country to collect its taxes and to set any of its policies independently of policies in other countries. If labor and capital (and even consumption) can move easily from one jurisdiction to another, then any attempt to tax these factors more heavily than one's neighbors will lead to a vanishing taxpayer as labor and capital flee from high to low tax regions. Analysts differ on whether this development is a positive or a negative one.

However, few question that globalization has led, and will continue to lead, to a significant reduction in the autonomy of governments.

Still another possible factor is that citizens may be unwilling to pay their taxes because the linkage between the payment of taxes and the receipt of public services is extremely weak. Weak political institutions themselves may weaken the accountability of local government elected officials, and it is this accountability that is the basis of the Oates' *Decentralization Theorem* as the main rationale for decentralization: government services should be provided by the lowest level of government that can do so efficiently. Although it is difficult to demonstrate the relationship between accountability and local public services, this link has in fact been the subject of several recent field studies, as discussed later.

There is no doubt that there is at least some truth to most of these explanations. However, one factor seems the most likely cause of low tax collections by local governments: the specific types of taxes that are in practice assigned to local governments. Indeed, the most obvious explanation is that the taxes that have been assigned to local governments in developing countries are largely unproductive ones. The more productive tax instruments, especially individual and company income taxes and broad-based consumption taxes like the sales and value added taxes, are typically retained by the central government, which is unwilling to share these taxes with subnational governments, especially local governments, as suggested by Table 2. Most all remaining taxes left to local governments, it is claimed, are simply unable to generate significant levels of revenues (or vertical imbalances). Indeed, many of the taxes assigned to local governments do not have any real revenue potential, and are more in the form of nuisance taxes.

All of this leads to our first conclusion: *the main reason for low tax collections is that local governments have been assigned largely unproductive tax sources*, taxes that are often difficult to administer, lack buoyancy, and allow little discretion to local governments.

The question then becomes what can be done to improve local government tax collections in the face of these difficulties. It is this question that we examine next. We confess in advance that we do not examine all potential solutions. For example, there is little that can be done on tax assignments because this requires the central government to share its more productive tax instruments with local governments, something that seems extremely unlikely to happen. Many other factors cannot easily be addressed by local governments acting on their own, such as factors that are well beyond the purview of local governments (e.g., poverty, lack of government autonomy, inadequate incentives collecting taxes or in receiving intergovernmental transfers, globalization).

Instead, we focus on one specific factor: poor tax compliance with local taxes. Now it should be admitted that this is extraordinarily difficult to document in any systematic way, given that there are few comprehensive measures of tax compliance at the local government level. Even so, we believe that poor tax compliance is a crucial factor in low tax collections. We also believe that it is a factor that local governments may be able to affect in some significant ways.

We say this because of the following line of thinking. First, low tax compliance is likely due at least in part to a lack of accountability to constituents by local government officials in their tax and spending decisions. Second, this lack of accountability means that individuals are often unwilling to pay taxes to their local governments because they do not see the link between the taxes that they pay and the services that they receive – or that they are supposed to receive. Third, this lack of accountability also means that individuals do not trust their local government to provide promised services. Fourth, this lack of accountability is in turn a crucial factor in the unwillingness of individuals to pay their taxes and so in the inability of local governments to collect taxes. Fifth and importantly, this lack of accountability is an issue that has been the subject of much recent research on ways to enhance accountability, to improve trust, to increase the willingness of individuals to pay their taxes, and, in the process, to improve local government tax compliance.

Now we realize that the answers that we suggest here are unlikely to prove decisive in all settings. Even so, we also believe that our answers have already proven to be useful in many real-world situations. This leads to our second conclusion: *tax collections, especially property tax collections, can be increased by local government policy initiatives that increase tax compliance by improving citizen trust in government, and these initiatives can be implemented quickly and effectively in many if not all settings*. We discuss the basis for this second conclusion in more detail in the next section.

4. What Can Be Done To Increase Local Government Tax Collections?

Our discussion proceeds in stages, and it is driven largely by results from the trust literature, the tax compliance literature, and the more recent pandemic literature. We begin with an examination of these three literatures, and we then apply it to local government taxation.[5]

4.1. A Brief Digression on Trust

Much of our discussion is based on the implications of "trust"; that is, why does trust matter? Our basic conclusion draws heavily on a recent essay by the late George Schultz, reflecting on what he had learned over his long life:

[5] Some of this discussion draws from Alm (2022).

> "December 13 marks my turning 100 years young. I've learned much over that time, but looking back, I'm struck that there is one lesson I learned early and then relearned over and over: *Trust is the coin of the realm.* When trust was in the room, whatever room that was — the family room, the schoolroom, the locker room, the office room, the government room or the military room — good things happened. When trust was not in the room, good things did not happen. Everything else is details… Trust is fundamental, reciprocal and, ideally, pervasive. If it is present, anything is possible. If it is absent, nothing is possible…" [6]

Indeed, research on trust has exploded in the last twenty years or so, building upon the foundations established by political scientists, psychologists, sociologists, anthropologists, and economists, people like James Coleman, Francis Fukuyama, Edward Mansfield, Douglas North, Elinor Ostrom, Robert Putnam, and others. It is in this spirit that we talk about what we have learned about the many dimensions and the many effects of trust, starting with its definitions, measurement, and trends.

On <u>definitions</u>, there are various definitions of "trust".[7] The definition that we start with is for "social trust", often referred to as "generalized trust" or "moralistic trust". This is trust in others – strangers, or people within your society with whom you have little personal familiarity. It is a belief in the honesty, integrity, and reliability of others. It is a belief that others share your fundamental values, that they will abide by recognized and shared social norms, that they should be treated by you as you would wish to be treated by them. It is a "faith in people", a belief in the "Golden Rule", a belief that people can (usually) be trusted to "do the right thing".

Aside from social trust, we can also think about trust in specific institutions, such as government, the courts, the media, and the like. The basic notion of trust for these institutions

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[6] See https://www.washingtonpost.com/opinions/2020/12/11/10-most-important-things-ive-learned-about-trust-over-my-100-years/ (12 December 2020, *The Washington Post*).

[7] See Levi and Stoker (2000), Hardin (2002), and Uslaner (2002) for detailed discussions of the many definitions of trust. Also, see Organisation for Economic Co-operation and Development (OECD) (2017) for a useful summary of these definitions and the methods for the measurement of trust; the OECD website also provides links to its many studies of trust, along with its estimates of trust, available at https://www.oecd.org/gov/trust-in-government.htm.

mirrors the notion of social trust: It is the belief that these institutions can ultimately be trusted to "do the right thing". Especially important here for our purposes here is trust in government, or "political trust".

As for measurement, there are two main approaches to measuring "social trust": direct survey measures in which people are asked their opinions on trust,[8] and indirect measures in which underlying notions of trust are revealed indirectly by individual choices, mainly in "trust game" experiments.[9] "Trust in government" and "trust in specific institutions" are also measured by surveys. We do not go into the details of these two approaches, other than to mention that the relationship between direct and indirect measures is, surprisingly, not all that strong. For the rest of our discussion, we draw primarily from direct measures of trust because these measures are available both for a longer period of time and for more countries than indirect measures of trust.

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[8] Direct measures of social trust are based on people reporting their trust levels on surveys and questionnaires, such as: General Social Survey (GSS), Pew Research Center surveys, Gallup polls, World Values Survey (WVS), European Values Study (EVS), European Social Survey (ESS), American National Election Studies (ANES), Eurobarometer, Latinbarometer, Asianbarometer, and so on. The typical question is something like the following, from the GSS:

> "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?"

As for trust in government (and trust in other social institutions), a different set of questions asks individuals to report their level of trust in these institutions, like government (national and local), political parties, political officials, the courts, the media, the military, and the like. These surveys typically include questions with a structure like that found in the WVS: "Please tell me on a score of 0-10 how much you personally trust each of the institutions that I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust." These responses are then used to form separate measures of trust in these specific institutions.

[9] Indirect measures infer subjective trust expectations by observing actual individual decisions, most commonly in laboratory experiments, as pioneered by Berg, Dickhaut, and McCabe (1995) in what has become known as the "trust game". In the trust game, two subjects (A and B) are each given an endowment, and they are randomly and anonymously paired with one another and given different jobs. The first mover (A) is asked whether s/he would be willing to send some part of the endowment to the second mover, where any amount chosen by A is tripled when sent to the second mover. The second mover (B) is then asked how much (if anything) s/he wishes to send back to the first mover. Once the second mover completes the task, the players are paid, and the experiment is over. Neither player knows the other, and they are paid in private. Player A's move is based on "trust", in that by sending a positive amount, s/he entrusts the payoffs to each player to Player B. The results of the players' choices therefore can be used to measure – indirectly – the level of revealed trust of the first mover (A). (Player B's move measures "trustworthiness" or "reciprocity".) This game has generated a large experimental literature; for recent surveys of the trust game literature, see Wilson and Eckel (2011) and Alos-Ferrer and Farolfi (2020).

And what do these various measures of trust indicate about trends within and across countries over time? The dominant message of all of these surveys is simple: Social trust has been in significant decline for most (if not all) countries over the last 50 years or so, and political trust has been falling over time by even greater amounts for most (if not all) countries. As only one among many possible examples, Gallup International survey evidence for the U.S. shows that social trust has fallen from 83 percent in 1974 to 55 percent in 2021 (where this percentage measures the percent of respondents who say that they have a "great deal/fair amount" of trust in others). Similarly, Gallup International survey evidence indicates that the percent of respondents with a "great deal/fair amount" of trust in the U.S. federal government has fallen from 68 percent to 39 percent over the same period. These percentages have risen in specific periods (after 9/11) and fallen in other periods (after Watergate), but the overall trend is clearly and largely downward. Of some note, over this period political trust in the U.S. has always been significantly higher for state and local governments than for the federal government. For example, in 2021 only 39 percent of respondents have a "great deal/fair amount" of trust in the federal government; the corresponding percentage for state government is 57 percent and is 66 percent for local government.[10]

4.2. Another Brief Digression on Tax Compliance – and the Pandemic

Now why should we care about trust? One key reason is because trust is a major factor in shaping the effectiveness of public policies. People who do not trust government will not obey

[10] See https://news.gallup.com/poll/355124/americans-trust-government-remains-low.aspx. For other examples of estimates, see: https://www.pewresearch.org/politics/2021/05/17/public-trust-in-government-1958-2021/;and https://www.worldvaluessurvey.org/wvs.jsp . This is far from an exhaustive list.

government policies that require them to behave in particular, mandated ways, and, when this happens, government policies cannot achieve their goals.[11]

But why does this occur? We argue that the tax compliance literature helps us understand some of the reasons – this is after all a literature that examines why people do or do not obey government directives, in this case paying taxes. This literature demonstrates the crucial role of trust, both in others and in government, on individual behavior. Another emerging set of research comes from very recent work on the pandemic. We discuss both literatures, as well as some casual but supporting evidence.

In the tax compliance arena, there are several distinct if overlapping frameworks that consider the effects of trust. Here is a very brief sampler – there are other examples.

One framework argues that government policies toward tax compliance need to incorporate different approaches, or *Paradigms*.[12] One is the traditional *Enforcement Paradigm*, where taxpayers are viewed and treated as potential criminals, and the emphasis is on repression of illegal behavior through frequent audits and stiff penalties. A second and newer approach is the *Service Paradigm*, which views the tax administration as a facilitator and as a provider of services to taxpayer-citizens, and the emphasis is on making it easier for people to pay their taxes via simplification, education, and assistance. Of most relevance is an emerging *Trust Paradigm*, whose premise is that individuals are more likely to respond either to enforcement or to services if they believe that other individuals and, especially, the government are honest; that is, "trust" in others and in the authorities can have a positive impact on compliance behavior. Researchers at

[11] Note that there is a large (and fairly recent) empirical literature that attempts to show the economic effects of trust, on such outcomes as: trade, financial development, productivity, institutional performance, personal happiness, educational attainment, preferences for redistribution, fertility, political participation, voting behavior, crime, savings, and the like; see Guiso, Sapienza, and Zingales (2006, 2008) for discussions of much of this literature. One of the most investigated outcomes is economic growth; see Algan and Cahuc (2013) for a survey of this literature.
[12] See Alm and Martinez-Vazquez (2003) and Alm and Torgler (2011).

the World Bank have recently developed a framework (Dom et al., 2022) that is largely the same, different mainly in that the paradigms are renamed *Enforcement*, *Facilitation*, and *Trust*.

A related but more formalized and more developed framework is the *Slippery Slope Framework*, in which it is argued that it is the interaction climate between taxpayers and authorities that shapes the willingness to cooperate, as based on *Trust* and *Power*.[13] In a synergistic and cooperative climate, characterized by high trust in authorities who act with high legitimization and professionalism, taxpayers are willing to cooperate voluntarily. In an antagonistic climate, characterized by low trust, poor legitimization, and questionable professionalism, taxpayers refuse to cooperate, unless compliance with the law is enforced via power. Thus, taxpayers' compliance depends both on the *Power* of the authority and on the *Trust* in the authority, with both dimensions moderating each other and determining the level of compliance. An authority with a high level of power (determined by frequent and effective audits and heavy penalties) achieves enforced tax compliance. An authority that elicits strong trust from citizens (determined by fair procedures, favorable attitudes toward the government, and social norms that define compliance as the expected and prevalent behavior) achieves voluntary compliance. Once again, then, the effectiveness of government policies depends intimately on trust in government.

Still another similar framework argues that there is a *Psychological Contract* between taxpayers and the government, a contract that implies responsibilities for both parties.[14] In this framework, citizens are willing to honestly declare income as long as the political process is perceived to be fair and legitimate; when the political process is seen as unfair and illegitimate,

[13] See Kirchler, Hoelzl, and Wahl (2008) for the underlying theory. Since then, Kirchler and his colleagues have provided many tests of this framework, mainly using laboratory experiments. See Batrancea et al. (2019) for one especially ambitious study, as discussed later.
[14] See Feld and Frey (2007).

citizens are more likely to cheat on their taxes. Accordingly, honest taxpayers must believe that they will not be exploited by tax cheaters, which requires that major violations for tax evasion must be enforced by the government. However, even honest taxpayers may make mistakes, so that minor offences should be subject to minor fines. Indeed, the imposition of heavy penalties on (largely) honest taxpayers may crowd out their intrinsic motivation to pay their taxes; that is, deterrence can actually backfire.

There is in fact much emerging evidence using different methods – evidence that is not always ironclad but more than suggestive – that supports all of these frameworks.

Some evidence comes from laboratory experiments on tax compliance.[15] One basic finding demonstrates that the social and institutional environment in which individuals live affects compliance, in ways that go well beyond any effects via purely financial incentives. Indeed, there is strong evidence that there is a social norm of compliance, in which one's compliance behavior depends upon various factors that reflect the many aspects of one's environment, including trust in others (Alm, McClelland, and Schulze, 1992). Further, these social norms are affected by the institutions that individuals face and by individuals' attitudes toward these institutions – such as trust in government (Alm, McClelland, and Schulze, 1999; Alm, Schulze, von Bose, and Yan, 2019). For example, individuals who do not exhibit trust in government tend to comply less, and trust in institutions affects the viability of government policies by affecting how individuals respond to government policies: when trust in government is greater, enforcement is more effective in deterring noncompliance, and service policies are also more effective in getting individuals to pay their taxes.

[15] See Alm (2019) for a comprehensive survey of the tax compliance literature. For a meta-analysis of laboratory experiments on tax compliance, see Alm and Malézieux (2021).

A related finding is that individual participation in the choice of institutions – the <u>process</u> as distinct from the <u>outcome</u> – has real effects, again independent of financial considerations driven by tax, audit, and fine rates. Subjects in laboratory experiments pay more when they choose the use of their taxes by voting than when the identical use is imposed upon them, their compliance is greater when the vote indicates a clear group consensus, and their compliance is significantly and dramatically lowered by the imposition without taxpayer choice of any program (especially an unpopular one) (Alm, Jackson, and McKee, 1993). There is also some work on how different forms of communication between the tax authorities and the taxpayers can increase the social norm of compliance (Alm and McKee, 2004; Alm, Jackson, and McKee, 2009; Alm, Bruner, and McKee, 2016; Alm, Bloomquist, and McKee, 2017). Once again, trust affects behavior, this time trust in the process.

There is also much experimental evidence for the *Slippery Slope* framework. Of special relevance here is recent work using data from multiple experimental studies conducted across 44 nations in five continents with nearly 15 thousand subjects (Batrancea et al., 2019). This work finds that the trust in authorities and the power of authorities each separately increases tax compliance, across societies that differ enormously in economic, sociodemographic, political, and cultural backgrounds. Also, this work finds that trust and power foster compliance through different channels: trusted authorities register the highest voluntary compliance, while powerful authorities register the highest enforced compliance. Overall, compliance is higher when both power and trust are high (and vice versa), with power and trust interacting with each other in a complicated dance. Indeed, there is evidence that some power is necessary to maintain trust, to signal to the compliant that the government will protect them from free-riders. However, power can also backfire and crowd-out trust – audits by their very nature signal distrust, and there is evidence from other work that audits can be counterproductive if those audited are honest.[16]

Further, there is some empirical evidence to support the *Psychological Contract* theory. Feld and Frey (2002) use data on Swiss cantons, and they find that the more strongly are political participation rights developed, the more important is this psychological contract between taxpayers and the government, and the higher is tax morale – and tax compliance. Relatedly, recent empirical work by Weigel (2020) demonstrates these findings in another real-world setting. He finds that citizens in the Congo engage more with government when it tries to tax them and that this engagement leads to an increased willingness to pay taxes.

Finally, there is some suggestive evidence in which we utilize data on "Trust in the Government" for some countries for which the data are available and we combine these data with the data from the IMF Fiscal Monitor to see whether there is some interplay between the type of local tax base, the percent of local tax revenue to federal tax revenues collected, and the amount of trust in the government. There are some simple patterns that emerge. For example, for governments where local taxes consist mainly of property taxes, the ratio of local tax revenues to federal tax revenues are lower even when as much as 50 percent of the population appears to have trust in the government. However, there is generally a higher percentage of local tax revenues to federal tax revenues collected when the tax base consists mostly of taxes levied on goods and services, and this result occurs even when trust in government is relatively low.

Will these results scale and generalize beyond tax compliance? The pandemic itself has presented an unprecedented opportunity to examine via natural experiments the effects of social trust on individual behavior, well beyond the tax compliance literature. There are many just

[16] See also Wahl, Kastlunger, and Kircher (2010), Muehlbacher, Kirchler, and Schwarzenberger (2011), and Lisi (2012) for other empirical support of the *Slippery Slope* framework.

emerging studies demonstrate that many of the effects of government policies during the pandemic have been intimately affected by citizen trust in government. There is strong and consistent evidence that individuals have been far more likely to obey mask mandates, to stay at home, and to get vaccinated, when they live in areas with greater levels of social and political trust (as well as greater levels of social capital), with evidence coming from a varied set of countries, including Austria, Brazil, Denmark, Germany, Italy, the Netherlands, Sweden, Switzerland, United Kingdom, and the U.S. (admittedly with some confounding results). In short, government policies designed to reduce the spread of the coronavirus worked when people trusted government – and they did not work when people did not trust government.[17]

In many ways, all of this evidence indicates clearly that government policy is an expression of values. When government articulates policies that are counter to peoples' values, peoples' trust in government necessarily and inevitably declines.

In sum, there are solid reasons for believing that many government policies work best – and may only work at all – in changing behavioral responses when people trust government. The recent COVID-19 studies may be the most vivid such examples.

4.3. Lessons: Improving Trust in Government

A first lesson that emerges from all of this evidence on trust is perhaps an obvious one, one that we have already noted earlier but one that still requires emphasis. There is much evidence that trust – and especially trust in government – is a major factor in shaping the

[17] This research is expanding quite rapidly. Much of it is still in working papers. For example, see the VoxEU webpage on COVID-19 research, available at https://voxeu.org/pages/covid-19-page, and see also the CESifo webpage for all of their many studies, available at https://www.cesifo.org/en/cesifo/publications. Some studies are now being published in academic journals; for an especially timely and important of these published papers, see the recent (and ongoing) special issues of the *Journal of Public Economics*, available at https://www.sciencedirect.com/journal/journal-of-public-economics/special-issue/10JWB645FT5. Of special relevance here are the papers by Bargain and Aminjonov (2020), Barrios et al. (2021), Durante, Guiso, and Gulino (2021), Egorov et al. (2021), Müller and Rau (2021), and Rafkin, Shreekumar, and Vautrey (2021).

effectiveness of public policies. When trust in government is weak, many government policies do not achieve their goals because people simply do not follow the government's laws, regulations, and directives.

A second lesson may seem less obvious. There is also much emerging evidence that trust is not fixed and given and immutable, mainly determined by a country's history and culture and institutions, as was once believed. Instead, recent evidence indicates that trust can vary significantly, even over relatively short periods of time. Relatedly and importantly, there is growing research that trust in government can be affected in systematic ways by systematic policy interventions. There are some caveats here, and we are not so naïve as to believe that changing trust via policies is easy. Even so, we believe that there are ways out of the wilderness.

There is in fact evidence – again not ironclad but more than suggestive – that trust in government can be affected in systematic ways by systematic policy interventions. This evidence comes from laboratory experiments, from field studies, and from empirical work on the drivers of trust. The laboratory experiments and field studies mentioned above provide strong evidence that innovations of various types can improve trust. Empirical work on the drivers of trust suggests – if does not prove, given cause-and-effect concerns – that trust is greater when there is more equality, less corruption/more competence, more accountability, and a more generous social safety net, among other drivers.[18]

In many ways, the strategies available to government to improve trust reflect the standard self-help strategies that are suggested to improve trust in personal relationships. These interpersonal strategies include such standard bromides as: "Communicate effectively", "Be transparent", "Be honest", "Honor your commitments", "Admit when you are wrong", and

[18] See Alm et al. (2020b).

"Apologize".[19] Indeed, these interpersonal strategies overlap closely with governmental strategies that Alm et al. (2020b) recently suggested as ways to increase citizen trust in government following the pandemic: "Communicate", "Justify clearly and transparently", and "Deliver on promises".[20]

Indeed, there is some informal evidence to support these strategies based on some simple comparisons between compliance variables in the World Bank *Ease of Doing Business* dataset and trust in government variables. For example, the number of weeks that it takes for a taxpayer to receive a VAT refund seems to be directly proportional to the public's trust in the government. This is especially evident in the case of Colombia and Mexico. For these countries, a similar relationship exists between the number of weeks that it takes for the taxpayer to get their final tax audit report and the percentage of the country's population that trusts the government. We admit that this is hardly conclusive evidence. Even so, we believe that it provides suggestive evidence that increasing competence in tax functions can lead to improvement of public trust in the government, which can then lead in turn to increased compliance with tax laws.

Overall, all of this evidence suggests that governments can do some things to improve trust in government. Indeed, destroying trust seems easy; building trust is much harder. Regardless, it is actual and enacted governmental policy that seems to matter the most. As argued by Eric Uslaner in his many writings, the area where a government probably has the

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[19] For a recent and representative example of these strategies and their rationales, see Ho (2021).

[20] See especially Glaeser et al. (2000), Alesina and La Ferrara (2002), Fehr (2009), and Organisation for Economic Co-operation and Development (OECD) (2018). This research is complicated especially by the difficulty of determining cause-and-effect, making identification of the causal effect of some variable on trust quite difficult. With this qualifier, empirical work on the drivers of trust in government tends to find that trust is lower for individuals: who have a history of traumatic experiences (e.g., war, social upheaval); who belong to a group that feels historically discriminated against (e.g., Blacks, Hispanics, women); who have more exposure to the media; who have less education and less income; who live in a racially mixed community, a community with significant income disparities, and/or a community with greater immigration; who live in a society with more government corruption and/or less social safety net protection.. Individual and societal factors like age, openness, optimism, risk aversion, political affiliation, civic engagement, or religion have mixed and inconsistent impacts.

greatest ability to generate trust is in the performance of its traditional responsibilities, and it is plausible that the public has lost trust in government mainly because people do not believe that government contributes to the greater good, that it does not deliver on its promises, that it is not transparent, that it is not looking out for peoples' interest. This provides government with an opportunity to act, and so to demonstrate that it can support people in their desire to live better, more fulfilling, and healthier lives.[21]

What do these very general musings suggest? Some national government strategies include programs that:

- Reduce inequality – inequality is one factor that shows up consistently as a driver of social and political trust, both at the national and at subnational levels across and within countries
- Reduce perceived governmental corruption or incompetence, another factor that shows up consistently
- Reduce economic and racial segregation (largely via its effects on inequality and fairness)
- Improve the social safety net (also via its effects on inequality and fairness)
- Implement policies to increase economic growth (like infrastructure investments)
- Be transparent – and accountable – in the enactment and the implementation of any policies.

These strategies try to make it obvious that the national government is working for people.

However, these strategies are easier said than done, they are unlikely to do much in the short run, and it is hard to be very optimistic that they can be implemented at the national level, fully or even in part, given the current highly partisan political environment in nearly all countries around the world.

We are much more optimistic that there are local government strategies that can work, largely because of the success of natural and controlled field experiments that demonstrate that

[21] See especially Rothstein and Uslaner (2005), Uslaner (2008, 2012), and Keefer and Scartascini (2022). For a rigorous theoretical demonstration of the effects of reciprocity on trust in government, see Besley (2020).

individuals respond to local government initiatives targeted at individual trust. These field experiments are discussed in more detail later; here is a brief summary of these initiatives:

- Increase government transparency
- Provide information on government operations
- Give individuals more control over the use of their taxes
- Improve the responsiveness of local government via improved voting systems
- Encourage the growth of community organizations
- Provide improved local infrastructure
- Be accountable – take responsibility for positive and negative actions.

All of these strategies attempt to make it clear that local government is working to improve the lives of its constituents – to improve trust and to increase accountability. The evidence is persuasive that these strategies do in fact increase trust in local government.

Indeed, it is this basic strategy – improve local institutions, including local government and community organizations with strong local roots – that many people have long advocated as a way of increasing trust, starting at the local level.[22] Historical evidence indicates that this strategy was the foundation of the renewed trust in government in the United States that emerged in the Progressive Era right before WWI, as led by politicians like Theodore Roosevelt, William Howard Taft, and Woodrow Wilson, by writers like Upton Sinclair, Ida Tarvell, and Lincoln Steffens, by activists like Mother Jones and Jane Addams, and by economists like Henry George and Thorsten Veblen. This strategy also builds upon the commonly observed finding that individuals have considerably more trust in local governments than in higher levels of government in most countries around the world, in large part because individuals seem more closely connected to their immediate local government than to a distant central government.

4.4. Implications of Improved Trust and Accountability: Increasing Local Government Tax Collections Via Greater Tax Compliance

[22] As only one example among many, see David Brooks, "America is having a moral convulsion" (5 October 2020, *The Atlantic*), available at Collapsing Levels of Trust Are Devastating America - The Atlantic.

So suppose that trust in local government, along with perceptions of local government accountability to its citizens, can be improved by these policies and mechanisms. What are the implications of these improvements for tax compliance and tax collections at the local government level?

There is in fact evidence that has been emerging in recent years from various field experiments that policy innovations can improve trust in local governments and, in the process, can also increase tax compliance, especially compliance with the local property tax. International organizations like the World Bank, the Inter-American Development Bank, and the International Centre for Tax and Development (ICTA), often in partnership with outside researchers, have undertaken a range of innovative natural and controlled field experiments (along with large-scale surveys) that test different strategies for improving tax compliance, mainly with the local government property tax. The most relevant field experiments are those that attempt to increase trust in government as a compliance strategy. Importantly, most all of these trust experiments occur at the local government level in developing countries, in Asia (e.g., Pakistan), Latin America (e.g., Argentina, Brazil, Colombia, Costa Rica, Guatemala, Mexico, Peru, Uruguay), and Africa (e.g., Ethiopia, Ghana, Kenya, Liberia, Malawi, Rwanda, Sierra Leone, South Africa, Tanzania, Uganda). These field experiments examine strategies like:

- Improving transparency and accountability in local government decisions by providing information to participants about local government behavior
- Providing information to participants about the compliance behavior of their neighbors
- Linking taxes with local services by informing participants about the use of their taxes or allowing participants to determine the use of their taxes
- Sending different types of messages to participants about government policies (e.g., enforcement messages, information messages, social norm messages)
- Providing educational services to participants to make it easier to pay taxes.

The results vary significantly by type of strategy, but they all rely in large part on strategies that improve trust and so improve tax compliance, as suggested by the *Trust Paradigm*, the *Slippery*

Slope Framework, and the *Psychological Contract*. These strategies include such specific actions as allowing individuals to see more clearly the link between taxes, as well as improving transparency both in expenditure provision (e.g., providing accessible information on government services, holding forums to publicize government programs, introducing participatory budgeting) and in tax collection (e.g., providing simplified tax assessments, allowing for individual appeals of tax assessments). All of these strategies represent an attempt to make local government more accountable to its citizens, thereby improving trust in government. A common if not a universal result is that these strategies generally improve individuals' trust in their neighbors as well as in their local government. Importantly, another common if not universal result is these strategies improve tax compliance with local taxes, especially the local property tax. Once again, changing trust changes behavior in systematic and predictable ways.[23]

These strategies also rely in part on the other two paradigms for tax administration. For example, there are field experiments that invoke the *Enforcement Paradigm* by publicizing the results of tax audits (Fjeldstad, 2001; Hasegawa et al., 2013; Jibao and Prichard, 2015, 2016; Brockmeyer et al. 2019), by imposing taxes on the physical property itself rather than the (often unidentified) owner (Earle, 2014; Prichard, Kamara, and Meriggi, 2020), and by introducing appropriate information technology (Ali, Deininger, and Wild, 2018; Okunogbe and Pouliquen,

[23] For examples of these field studies (as well as some surveys), see Fjeldstad (2001), Fjeldstad and Semboja (2001), Cabannes (2004), Fjeldstad (2004), Korsun and Meeghec (2004), Biderman and Silva (2007), Ali, Fjeldstad, and Sjursen (2014), Gonzalez-Navarro and Quintana-Domeque (2015), Jibao and Prichard (2015, 2016), Prichard et al. (2015),Timmons and Garfias (2015), Prichard and van den Boogaard (2017), Flores-Macias (2018), von Haldenwarg (2018), Mascagni, Santoro, and Mukama (2019), Sanogo (2019), Touchton, Wampler, and Peixoto (2019), Bowers et al. (2020), Khwaja et al. (2020), Krause (2020), Carrillo, Castro, and Scartascini (2021), van den Boogaard et al. (2022), Giaccobasso et al. (2023), Kresch et al. (2023), and Castañeda-Rodriguez and Lisi (2024), Prichard, Jibao, and Pillai (2025), among many others. Information on many of these field studies can be found online at https://www.ictd.ac/theme/tax-administration-and-compliance/ and at https://www.worldbank.org/en/topic/macroeconomics/brief/innovations-in-tax-compliance.

2022), sometimes with little impact on compliance (Brockmeyer et al., 2024). There are also field studies that use the *Service Paradigm* by allowing individuals to pay their property taxes (and other fees and taxes) via banks or mobile money accounts (Krolikowski, 2014; Jankeeparsad, Jankeeparsad, and Nienaber, 2016; Maphumula and Njenga, 2019), again with somewhat mixed effects on compliance (Brockmeyer and Somarriba, 2025).

All of these strategies are based largely on the tax compliance literature and its demonstration of the rule of trust in tax compliance. We argue that these strategies work when they increase trust and accountability in government, and it is through this channel that individuals become more willing to pay their taxes. See Boxes 1, 2, 3, 4, and 5 for specific case studies that illustrate several of these strategies.[24]

However, as noted above, it should be remembered that these field experiments sometimes demonstrate that policies do not always have the expected effects. In a recent and particularly striking field study, Brockmeyer, Garfias, and Suárez Serrato (2024) examined the effects on property tax compliance of a local public infrastructure project in Mexico City that was financed by local property taxes. The project had significant, visible, and positive effects on access to public services, property values, and local economic development. Even so, Brockmeyer, Garfias, and Suárez Serrato (2024) found that the project had no impact on property tax compliance. Indeed, these null effects persisted even when taxpayers were explicitly reminded about the tax-benefit link. This example illustrates once again that strategies that work in some settings do not necessarily work in other settings; that is, there is no "one size fits all" approach to improving tax compliance in developing countries.

[24] The summaries of these case studies are based primarily and directly on the abstracts of their respective papers.

Box 1:
"Balancing Purse and Peace: Tax Collection, Public Goods, and Protests"

Krause (2020) investigated whether strengthening state capacity in low income countries while maintaining political stability requires raising tax revenue, so that improved public goods provision may improve both tax compliance and political stability. Krause (2020) collaborated with the national tax authority and a local mayor's office in one of Haiti's largest cities to cross-randomize both tax collection and public goods across the city, measuring the effects of public goods provision on tax compliance and political stability using both administrative data on individual tax collections and survey measures of political unrest. He found that hand-delivering property tax invoices reduces individual tax compliance by 48 percent while increasing independently observed measures of localized political violence by 192 percent. In contrast, he also found that providing a valuable and visible public good (e.g., municipal garbage removal) increases tax compliance by 27 percent, and reduces localized political violence by 85 percent. Importantly, public goods provision significantly mitigates the adverse effects of tax collection in neighborhoods receiving both treatments. Krause concluded that it is possible to improve tax compliance while also maintaining political stability, if there is sufficient initial investment in public goods provision.

Source: Krause (2020).

Box 2:
"The Participation Dividend of Taxation:
How Citizens in Congo Engage More With the State When It Tries to Tax Them"

Weigel (2020) conducted a controlled field experiment in which property tax collection is randomized across 356 neighborhoods in Kanaga, a large city in the Provincial Government of Kasai Central in the Democratic Republic of the Congo. In 2016, the provincial government launched a citywide tax campaign in an effort to raise property tax revenues. The government randomized the rollout of the campaign across the city's 356 neighborhoods covering more than 27,000 properties. In treated neighborhoods, tax collectors went door-to-door: registering property owners and assigning unique tax ID numbers; making in-person appeals for the property tax, which they collected on the spot from the property owners; and informing owners about what services their property taxes would finance. Control neighborhoods remained in the old "declarative" system, in which property owners were supposed to go to the tax ministry to pay but in which compliance was near zero because the government had seldom tried to enforce the tax. Weigel (2020) found that the tax campaign raised property tax compliance from 0.1 percent in control neighborhoods versus 11.6 percent in treated neighborhoods. He also found significant effects on political participation: the tax campaign increased political participation by about 5 percentage points (or by 31 percent) in treated neighborhoods relative to control neighborhoods; citizens in treated neighborhoods were more likely to attend town hall meetings hosted by the government or to submit positive evaluations of its performance; and treated citizens updated their views about the government in positive ways. Weigel (2020) concluded that broadening the tax base can improve property tax compliance, while also having a "participation dividend", with citizens demanding more of a voice in government when it tries to tax them,

Source: Weigel (2020).

Box 3:

“Public Good Provision and Property Tax Compliance: Evidence from a Natural Experiment”

Carrillo, Castro, and Scartascini (2021) examined the effect of positive rewards on property tax compliance by exploiting a natural experiment in which the Santa Fe municipality in Argentina randomly selected 400 individuals among more than 72,000 taxpayers who had already complied with the payment of their property tax. These individuals were publicly recognized in the local media and then awarded the construction of a new sidewalk on their property. Carrillo, Castro, and Scartascini (2021) found that taxpayers were seldom willing to pay delinquent bills in order to participate in the lottery. Even so, they also found using administrative data on individual property tax payments that winning the lottery – and receiving a new sidewalk on the property – had a large, positive, and persistent (e.g., at least 3 years) effect on the tax compliance of lottery winners. Finally, Carrillo, Castro, and Scartascini (2021) estimated sizable spillover effects from the new sidewalk, as neighbors of lottery winners also increased their overall compliance. They concluded that providing a valuable, durable, and visible public good has a positive and long-lasting effect on property tax compliance.

Source: Carrillo, Castro, and Scartascini (2021).

Box 4:
“Sanitation and Property Tax Compliance: Analyzing the Social Contract in Brazil”

Kresch et al. (2023) studied Manaus, Brazil, where sewer connections vary considerably across the city and where property taxes are calculated using presumptive methods that do not account for a household’s access to sanitation. The property tax is a key source of municipal revenue in Manaus, but nonpayment is the highest among all large Brazilian cities, with less than half of the city’s taxpayers paying their property tax bills in 2017. Kresch et al. (2023) exploited variation in access to improved sanitation over nearly 200,000 households in the city, in order to examine how access to sanitation affects taxpayer willingness to pay the property tax: less than a quarter of the households in Manaus have a sewer connection, and one tenth of households lack access to any type of improved sanitation. Kresch et al. (2023) found that households with access to the municipal sewer system are significantly more likely to be compliant with property tax payments, relative to households that only have access to latrines or that lack access to any sanitation. Controlling for tax liability and a variety of household and neighborhood characteristics, they found an estimated 15 percentage point increase in compliance for sewered households relative to households that lack access to sanitation. They also used a household survey that collected information on individual attitudes on local government and its tax system. Controlling for the property tax liability and other socioeconomic characteristics, they found that households with sewer access were significantly more likely to have favorable views of the government, an effect driven by compliant households. Kresch et al. (2023) concluded that there are ways to enhance the social contract in Manaus, whereby improving services has the simultaneous effect of raising the necessary revenue to fund these improvements.

Source: Kresch et al. (2023).

Box 5:
“Sub-national Property Tax Reform and Tax Bargaining: Lessons from a Quasi-randomized Reform Program in Sierra Leone”

Prichard, Jibao, and Pillai (2025) examined the impact of a quasi-randomized property tax reform implemented in Sierra Leone, in order to provide evidence about the extent to which expanded taxation results in increased responsiveness and accountability of local government. They used a panel survey conducted in both treatment and control districts immediately prior to the implementation of a large-scale property tax reform program in 2012, with the survey conducted again in early 2017. They found that the tax reform program resulted in large and significant improvements in the perceived quality of public services, consistent with theories linking expanded taxation to improvements in governance. They also found evidence of individual level changes in attitudes and behaviors that can explain those aggregate improvements in service delivery outcomes: a large expansion of political knowledge, increases in important forms of political engagement, and the emergence of improved levels of tax compliance along with more positive conditional attitudes toward government.

Source: Prichard, Jibao, and Pillai (2025).

5. CONCLUSIONS

There are of course other strategies to increase tax collections at the local government level. Indeed, in virtually every country study that has examined local government finances one can find a set of recommendations that includes such standard and well-worn strategies as:

- *Give local governments more discretion to change the tax rates and the tax bases of its taxes*
- *Eliminate nuisance taxes that complicate tax administration and raise little revenues*
- *Expand the scope of user fees*
- *Let local government borrow, with appropriate restrictions*
- *Change grant formulae to provide more incentives for local governments to utilize their own taxes*
- *Allow local governments to utilize alternative revenue sources, especially piggyback tax surcharges*
- *Reduce unnecessary regulation*
- *Improve civil service compensation*
- *Impose credible sanctions against corruption of local government officials.*

Even when actually implemented, the effects of such policies are mixed, as demonstrated at least in part by their failure over the years to have any significant, sustained, and positive impact on local government tax collections.

Another approach that has emerged in recent years is to rely on technology to solve the revenue problem of local governments in developing countries.[25] The allure of technological

[25] For detailed discussions of the benefits and costs of technology on taxation, see Bird and Zolt (2008) and Alm et al. (2020a).

fixes to revenue-raising is especially strong. Computerization is obviously central to many applications of technology. However, there are many other technological dimensions as well, including: the ability of government to track transactions that leave an "electronic trail"; the decline in use of cash and the rise in the use of digital currencies; the potential for pre-populated tax returns and other forms of presumptive taxation; the expansion of electronic tax return filing; the growth in third-party sources of information; the use of blockchains and its potential to track transactions; the growth in peer-to-peer (P2P) networks and its potential to track transactions; and the like. Underlying much of the perceived potential for technology is the belief that technology makes information <u>retrieval</u> (e.g., "Panama papers"), information <u>transmission</u> (e.g., linked cross-agency governmental databases, linked international data bases and transparency laws and agreements like the OECD "Base Erosion and Profit Shifting" (BEPS) initiative and the U.S. Foreign Account Tax Compliance Act (FATCA), and information <u>analysis</u> (e.g., cross-checking of VAT receipts, targeting audits, finding behavioral patterns with artificial intelligence, "deep learning", and "big data") faster and more efficient than ever. All of this is of course true. However, such potential gains can make one oblivious to the fact that these technologies are also available to individuals and businesses, who often have both greater resources and greater incentives to use these technologies.

It is hard to resist the temptation to believe that either or both such strategies – those based on standard tax administration prescriptions and those based on technology – will provide a quick and easy fix to solve the problem of low local government tax collections. There are in fact examples of countries in which these strategies have increased local government tax collections. However, there are also many examples in which these policy reports have simply gathered dust sitting in a corner of Ministry of Finance offices. There is no “magic bullet” for tax reform in developing – or developed – countries, as Bird and Zolt (2008) have emphasized.

So what should developing countries do to increase subnational tax collection? We have argued here that there is much potential for increasing local government tax collections by strategies that have at their foundation increasing trust in local governments. It is no doubt naïve to believe that such strategies can actually be implemented. However, there is evidence from around the world that the political will can often be found to make these changes, quickly and effectively. Not incidentally, there is also evidence from around the world that the funding for these changes can often be found, from international, aid, and nonprofit organizations.

Indeed, we believe that the purpose of public policies – and our purpose as academics and practitioners – is not simply to increase taxes as the end goal of any policy intervention. Rather, our fundamental purpose should be to improve peoples’ lives, and increasing trust is a way by which government can in fact improve lives, by increasing the resources available to government and by increasing the effectiveness of government policies that can be financed with these resources. The ultimate end is to build a fiscal system at all levels of government – central and subnational – that is efficient, that reflects the demands of its constituents, and that works well for everyone. Such a system will, not incidentally, be seen as accountable and as trustworthy.

There are no easy fixes. However, there are fixes that can be implemented efficiently and even quickly, as clearly demonstrated by the many field studies that have been completed in recent years in local jurisdictions in virtually all corners of the world. We are hopeful that these fixes can provide the path by which accountability and trust in local governments – along with local government tax collections – can be improved.

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