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Why Do Developing Countries Tax So Little?[†]

Timothy Besley and Torsten Persson

The power to tax is taken for granted in a great deal of mainstream public finance. In considering limits to taxation, traditional research in the field focuses on limits imposed by incentive constraints, which are tied to asymmetric information or to politics and political institutions. The limits to taxation are rarely tied to the administrative capacity of the state. But incentive constraints alone cannot explain the vast differences in the levels of taxation that we see across the world and across time. Low-income countries typically collect taxes of between 10 to 20 percent of GDP, while the average for high-income countries is more like 40 percent.

In essence, our view on these patterns is similar to that taken by Joseph Schumpeter (1918) almost a century ago, when he noted: “The fiscal history of a people is above all an essential part of its general history. An enormous influence on the fate of nations emanates from the economic bleeding which the needs of the state necessitates, and from the use to which the results are put.” In order to understand taxation, economic development, and the relationships between them, we need to think about the forces that drive the development process. Poor countries

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[†]To access the Data Appendix and disclosure statements, visit <http://dx.doi.org/10.1257/jep.28.4.99>

are poor for certain reasons and these reasons can also help to explain their weakness in raising tax revenue.

We begin by laying out some basic relationships regarding how tax revenue as a share of GDP varies with per capita income and with the breadth of a country's tax base. We sketch a baseline model of what determines a country's tax revenue as a share of GDP. Like many baseline models in economics, it is useful not because it applies very directly to the real world, but because it helps organize our thinking about what departures from the model are likely to be useful. We then turn to our primary focus: why do developing countries tax so little? We begin with factors related to the economic structure of these economies. But we argue that there is also an important role for political factors, such as weak institutions, fragmented polities, and a lack of transparency due to weak news media. Moreover, sociological and cultural factors—such as a weak sense of national identity and a poor norm for compliance—may stifle the collection of tax revenue. In each case, we suggest the need for a dynamic approach that encompasses the two-way interactions between these political, social, and cultural factors and the economy.

Of course the study of taxation in low-income countries teaches us about the general forces driving higher and lower levels of taxation, but it does much more. The evolution of taxing power is central not only to the state's capacity to raise revenue, but also to its capacity to provide goods and services and to support a market economy. Moreover, political development goes hand in hand with economic development, as citizens in participatory political systems demand sound management of increasing public resources. Thus, the power to tax is about much more than raising tax revenues—it is at the core of state development.¹

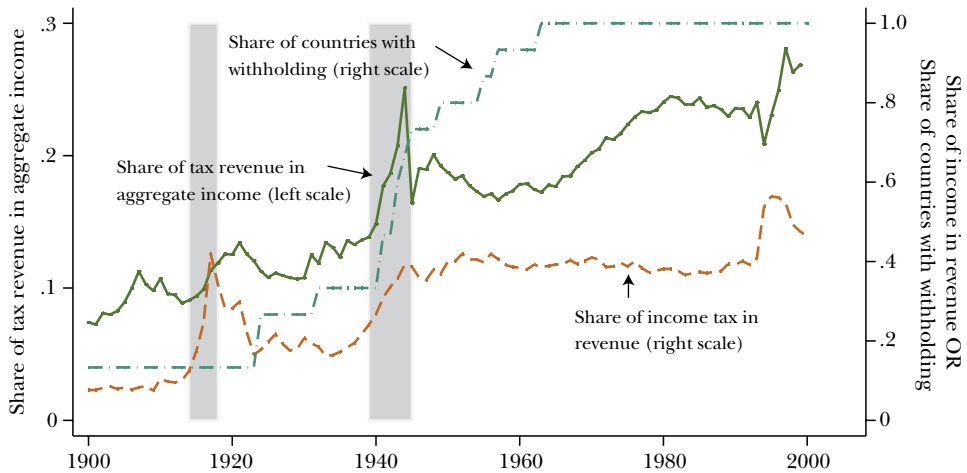
Empirical Patterns

It is useful to begin the discussion with some broad facts in hand. Throughout the paper we will be considering taxation at the national level, not including state and local taxes. Figure 1 illustrates how the level and structure of taxation—the share of tax revenue in aggregate income and the share of income taxes in revenue—has changed over the twentieth century in a sample of 18 countries (Argentina, Australia, Brazil, Canada, Chile, Colombia, Denmark, Finland, Ireland, Japan, Mexico, the Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom, and the United States) drawing on data from Mitchell (2007). For 15 of these countries, the figure also illustrates the introduction of direct tax withholding of income taxes from pay, an important technical innovation for raising income taxes by making use of firms in the collection of tax

¹ Discussions of taxation and development by noneconomists frequently emphasise this theme (for example, Bräutigam, Fjeldstad, and Moore 2008; Levi 1988).

Figure 1

Evolution of Tax Revenue, Income Tax, and Tax Withholding in a Sample of 18 Countries



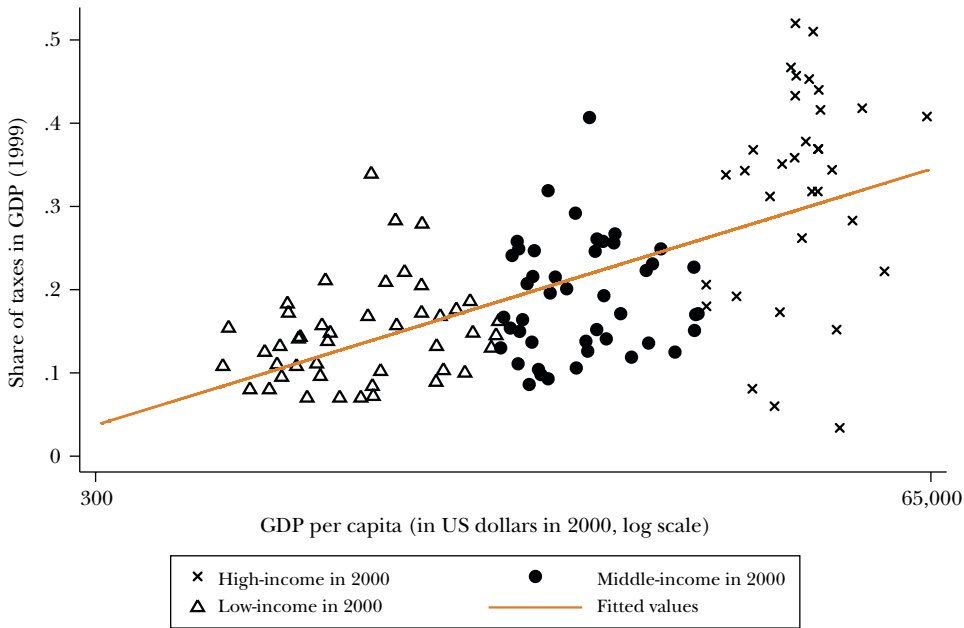
Source: Draws on data from Mitchell (2007).

Notes: Figure 1 illustrates how the level and structure of taxation—the share of tax revenue in aggregate income and the share of income taxes in revenue—has changed over the twentieth century in a sample of 18 countries: Argentina, Australia, Brazil, Canada, Chile, Colombia, Denmark, Finland, Ireland, Japan, Mexico, the Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom, and the United States. The sample represents a set of countries where we can reasonably assume that our measures are comparable across countries and time. We show unweighted averages across these 18 countries. For the data series that includes tax withholding, data for Finland, New Zealand, and Norway are missing. The periods of the two World Wars are shaded. We consider only taxation at the national level, not including state and local taxes.

revenues. The figure shades the years surrounding the two World Wars. These data illustrate the general tendency of government growth. The twentieth century has arguably witnessed the biggest increase in state power in history, at least in terms of the ability to raise tax revenues. A striking pattern shown in Figure 1 is the increase of taxation during each world war; also striking is that the share of countries with direct withholding of income taxes doubled during World War II. The importance of war in building fiscal capacity has long been recognized in fiscal sociology and is particularly associated with the work of Hintze (1906) and Tilly (1990).

Figure 2 provides a further window on the link between tax shares and GDP per capita. It plots the total tax take as a share of GDP (from Baunsgaard and Keen 2005) against the log of GDP per capita (from the Penn World Tables), both measured around the year 2000. Different markers distinguish observations by income level, dividing countries into three equal-sized groups. Clearly, tax shares

Figure 2
Country-level Taxes and Income



Notes and Sources: Figure 2 plots the total tax take as a share of GDP (from Baunsgaard and Keen 2005) against the log of GDP per capita (from the Penn World Tables), both measured around the year 2000. The outliers visible in the lower right corner are the three oil states of Bahrain, Kuwait, and Oman.

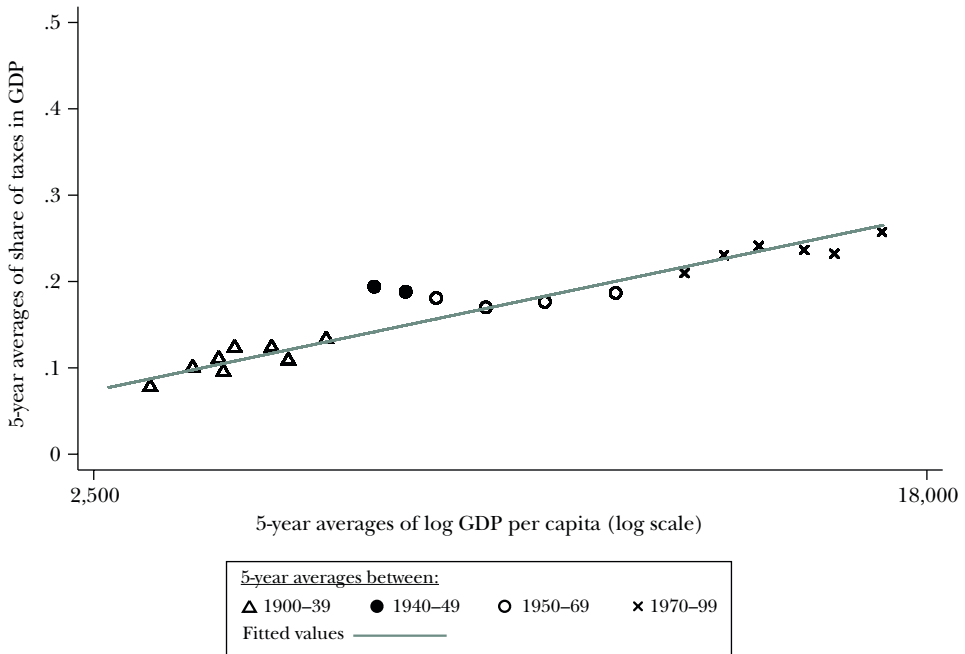
are positively correlated with income. The outliers visible in the lower right corner of Figure 2 are the three oil states of Bahrain, Kuwait, and Oman.

Figure 3 looks at the same relationship over time for the same sample of 18 countries as in Figure 1, plotting five-year averages of the tax share over the twentieth century (taken from Mitchell 2007) against national income (from Maddison 2001). Here, the different observations are distinguished by time period. The cross-section and time-series patterns are strikingly similar. Higher-income countries today raise much higher taxes than poorer countries and the tax share in GDP of today's developing countries looks very similar to what it did a century ago in the now-developed economies of the world.

Figures 1 and 3 illustrate paths of fiscal history that help shed light on today's pool of countries in Figure 2. Much has been written on the tendency of government to grow over time, and indeed few countries have reached a high level of prosperity alongside a low-tax state. While the United States and Switzerland do have somewhat lower levels of taxation compared to other high-income countries, they have much higher levels of taxation compared to developing countries and

Figure 3

Global-level Taxes and Income in a Sample of 18 Countries and 20 Time Periods

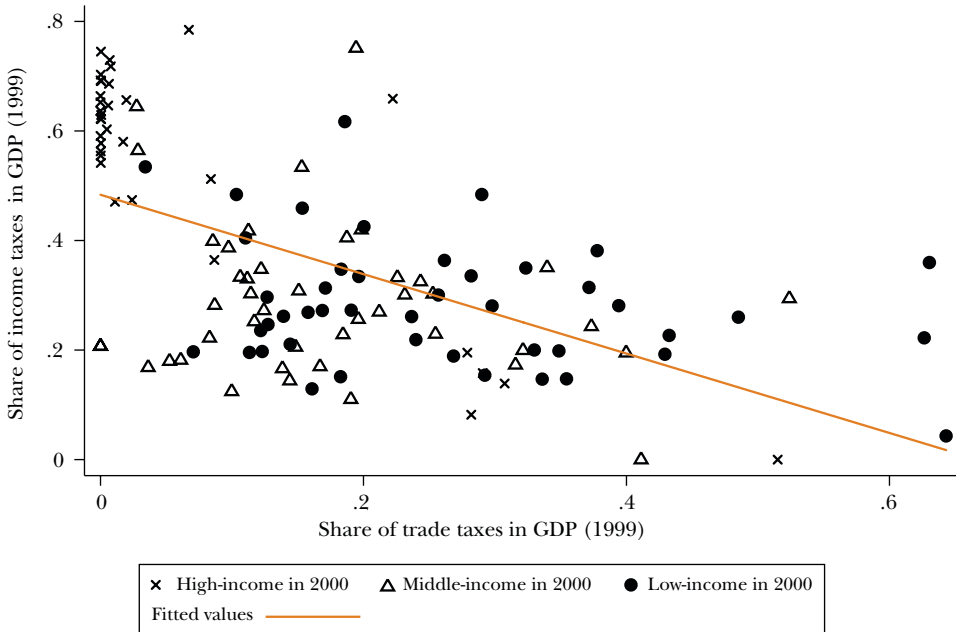


Notes and Sources: For the same sample of 18 countries as in Figure 1, Figure 3 plots five-year averages of the tax share over the twentieth century (taken from Mitchell 2007) against national income (from Maddison 2001). Here, the different observations are distinguished by time period.

have followed a familiar path over time, with expanding powers of the state and its capacity to tax. We will argue that this path offers important lessons about economic development in general and the growing capacities of the state both to support markets and to provide nonmarket goods. The gist of this argument is not that having a large state—one that spends one-third or more of income on behalf of its citizens—is necessarily a good thing. But we will argue that creating institutions that can support and sustain markets with their attendant benefits for citizens also fosters incentives for high levels of taxation. In essence, the high-tax state is part and parcel of development.

We also see structural differences in the form of taxation. Trade taxes and income taxes represent two polar cases in terms of required administrative capability. Collecting trade taxes requires only observing trade flows at borders, while collecting income taxes requires a much more elaborate system of monitoring, enforcement, and compliance. One way to illustrate this difference is to look at the shares of revenue coming from trade and income taxes whatever the level of taxation.

Figure 4

Income Taxes versus Trade Taxes, for Countries with Different Levels of Income

Sources: Baunsgaard and Keen (2005) and the Penn World Tables.

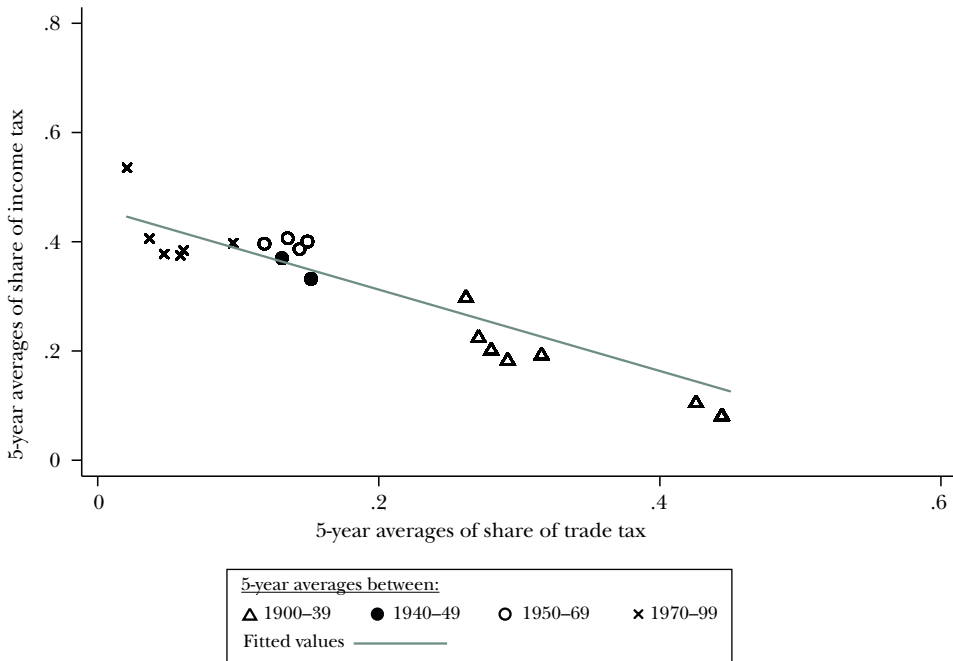
Note: Figure 4 plots the share of income taxes in GDP on the y-axis versus the share of trade taxes in GDP on the x-axis (as of 1999) for countries that were high-, middle-, or low-income in 2000.

Such shares are plotted in the next two figures: in the cross-section for the year 2000 (Figure 4) and in the time series throughout the twentieth century (Figure 5). (Data sources are the same as for Figures 2 and 3.) In both figures, we plot the income-tax share on the vertical axis and the trade-tax share on the horizontal axis. In the cross section as well as the time series, we find a clear negative correlation between the two tax bases and a clear correlation with income. High-income countries depend more on income taxes and many of them do not use trade taxes at all (witness the multiple X's at zero trade taxes). On the other hand, middle-income countries and, especially, low-income countries use trade taxes much more. That said, we also see quite a bit of heterogeneity unrelated to income. Figure 5 illustrates how the move from trade taxes to income taxes is a clear feature of the historical development of taxation. As we found when comparing Figures 2 and 3, the cross-sectional and time-series patterns in Figures 4 and 5 are strikingly similar.

Figure 6 uses an alternate method to illustrate how low-income countries typically have different and narrower tax bases than high-income countries: it plots top statutory income-tax rates in the 1990s for a 67-country sample (from Gordon and Lee 2005) against the share of income taxes in GDP (from Baunsgaard and

Figure 5

Global Shares of Income Taxes versus Trade Taxes, in a Sample of 18 Countries and 20 Time Periods



Source: Data sources are the same as for Figures 2 and 3.

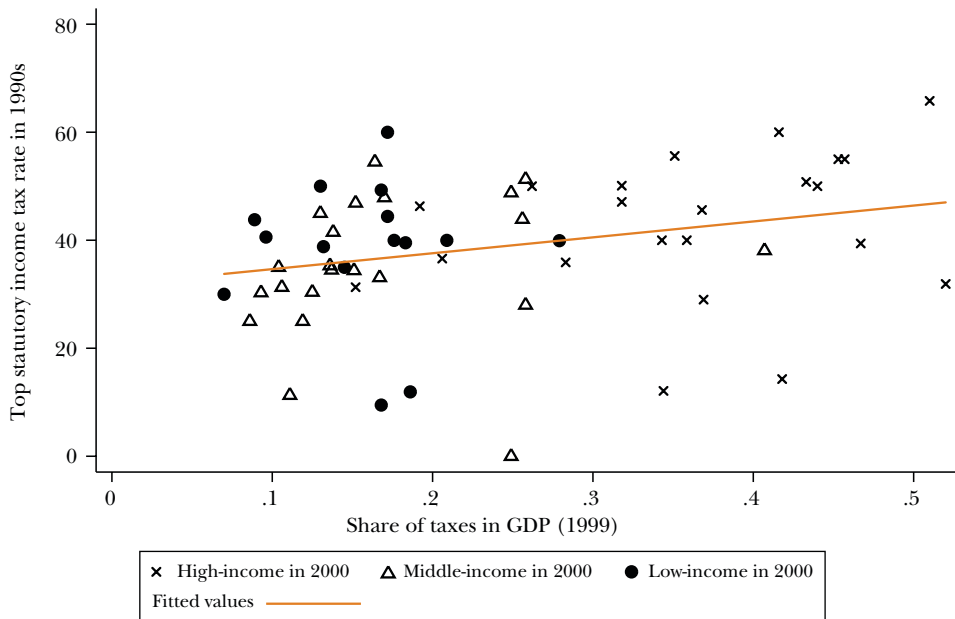
Note: For the 18 countries of Figure 1, this figure plots the global shares of income taxes in world income on the y-axis versus the global shares of trade taxes on the x-axis (as of 1999) for five-year averages.

Keen 2005). The top statutory rate (on the vertical axis) is roughly the same across different groups of countries, suggesting that the different tax take (on the horizontal axis) is due to the tax base. The figure suggests that broadening the tax base, rather than changing the tax rates, would be the key to increasing tax revenues in many low-income countries.

These broad-brush data comparisons display some useful common patterns, but they also show a great deal of heterogeneity, which suggests that country-specific factors play a major role. We will unpack both commonality and heterogeneity in the discussion to follow. To tee up that discussion, we point out a few further empirical regularities that emerge from regressions on the cross-sectional data. These regressions are useful for description, but largely meaningless for making causal statements. One reason is the clustering problem—that is, countries that “do well” on one indicator also tend to well on many others. Another is that variables, which may be thought of as “controls,” are jointly determined with the outcome of interest.

Figure 6

Maximum Statutory Income Tax Rate and Share of Taxes in GDP, for Countries with Different Levels of Income



Note and Sources: Figure 6 plots top statutory income-tax rates in the 1990s for a 67-country sample (from Gordon and Lee 2005) against the share of income taxes in GDP in 1999 (from Baunsgaard and Keen 2005) for high-, middle-, and low-income countries.

Still, looking at the data is a useful start and provides some pointers that can be used to shape thinking about causal mechanisms.

In Table 1, the dependent variable is the share of taxation in GDP. Column 1 reproduces the core finding of Figure 2, albeit in a different way. It shows that countries in the top third of the global income distribution on average have a 13 percentage-point higher share of taxes in GDP than countries in the middle third of global income distribution, and about 17.5 percentage-point higher tax take than low-income countries.

In column 2, we look at one historical and one social-cultural variable. The historical variable is the proportion of years in which a country has been in a war during its existence (defined by the start of the Correlates of War database or the country's date of independence). We see a positive correlation between past wars and taxation. The social-cultural variable is ethnic fractionalization from Fearon (2003). More fractionalization is associated with a lower tax take.

Column 3 illustrates the correlation with a commonly used indicator of political institutions, namely the strength of *Executive Constraints* (constraints on the power

Table 1
Descriptive Regressions for the Dependent Variable “Share of Taxes in GDP”

	(1)	(2)	(3)	(4)	(5)
Independent variable:					
<i>High Income</i>	0.130*** (0.024)				-0.003 (0.041)
<i>Low Income</i>	-.045*** (0.013)				0.036 (0.024)
<i>Average Years in War</i>		0.417*** (0.104)			0.119 (0.124)
<i>Ethnic Fractionalization</i>		-0.155*** (0.042)			-0.044 (0.037)
<i>Executive Constraints</i>			0.214*** (0.030)		0.079** (0.038)
<i>Corruption Index</i> (0 bad; 10 good)				0.055*** (0.018)	0.038* (0.020)
<i>Property Rights Protection</i>				0.214* (0.125)	0.273*** (0.099)
R^2	0.405	0.278	0.324	0.575	0.644
Number of countries	123	101	105	91	86

Notes and Sources: The dependent variable is the share of taxes in GDP from Baunsgaard and Keen (2005). *High Income* is a dummy equal to one if a country is in the top third of income per capita in 2000 and *Low Income* is a dummy equal to one if a country is in the bottom third. Average years in war is the fraction of years in external war from 1816 (or independence if later) until 2000, using two binary measures of interstate war and extrastate war from the Correlates of War (COW) database. *Ethnic Fractionalization* is taken from Fearon (2003). *Executive Constraints* measures the average value of the variable *xconst* from 1800 (or independence date if later) up to 2000 from the Polity IV database. The average is taken over nonmissing values of *xconst* (values outside [1, 7] are treated as missing), and the resulting variable is normalized so that each country’s scores lie between 0 and 1. *Corruption Index* is the normalized value of the overall score of each country in Transparency International’s Corruption Perceptions Index 2006 (with 0 indicating high perceived corruption and 10 indicating low perceived corruption), divided by its standard deviation. *Property Rights Protection* is measured by the International Country Risk Guide seven-point scale in 1997. Robust standard errors are in parentheses.

*, **, and *** indicate significance levels of 10, 5, and 1 percent, respectively.

of the executive, as measured in the Polity IV database). When we measure *Executive Constraints* as the average historical value in the time period since the country entered the database (or since independence), we see a strong positive correlation with the share of taxes.

Column 4 explores two measures of state effectiveness: Transparency International’s Corruption Perceptions Index, in which a low number means high perceived corruption and a high number means low perceived corruption; and the protection of property rights as measured in the *International Country Risk Guide*. Both measures are positively correlated with tax revenue, which is suggestive of there being some common determinants of state effectiveness.

Finally, in column 5, we include all these variables at the same time. Now, the per capita income variables are insignificant, while the correlations with executive constraints and property rights protection remain strong. Of course, this does not give the stronger correlations any special status in explaining the patterns in the data, and even the conditional income correlations do not rule out concerns about reverse causality and joint determination of key variables. Making sense of these findings requires a discussion of economic and political mechanisms leading to two-way interactions among the variables at hand.

A Benchmark Model

To think about why taxation is so low in developing countries, we begin from a simple benchmark. Suppose that policy making is controlled by a group of citizens. This incumbent group has access to a set of tax instruments for raising revenue that can be spent on transfer programs and/or goods and services. Then, we expect taxes to be raised to the point where the marginal benefit to the ruling group of raising more tax for higher government expenditures is equal to the marginal cost of raising more tax, which depends on the elasticity of the tax base. This elasticity can include standard considerations of deadweight loss, as well as leakage from tax avoidance and evasion.

The best-known workhorse model in this spirit is probably the one laid out in the seminal paper by Meltzer and Richards (1981; see also the preceding papers by Romer 1975 and Roberts 1977). These authors assume a redistributive motive for raising taxation—the only tax base is income, with no avoidance/evasion margin—and a median voter in control of policy. In this case, the marginal benefit of taxation depends upon the difference between *mean* income, which determines how much revenue goes up with the tax, and *median* income, which determines the rate at which the pivotal group of voters lose earnings when the tax is raised. The marginal cost depends upon the aggregate labor-supply elasticity, which is the only source of deadweight loss. In this setting, countries with greater inequality (defined by the distance of median to mean income) will tax more.

One useful purpose of a benchmark model is to clarify what specific assumptions imply a certain result and so help organize thinking about whether those assumptions actually apply or need to be modified. For example, it is highly debatable whether this benchmark model is a useful starting point for thinking about the size of government in the United States. With median household income around \$50,000 and mean income around \$70,000, a model driven by taxation-for-redistribution and a median voter suggests that US tax revenue should be one of the highest relative to GDP among the high-income countries, rather than one of the smallest. Thus, while the redistributive motive for taxation might still matter, it seems that a more sophisticated approach is needed for understanding the effects of this motive.

Applied to developing countries, the central assumptions of the Meltzer and Richards (1981) framework appear even more problematic. First, policy making may not reflect the interest of a median voter, not least because many low-income countries do not have democratic institutions. Second, characterizing the redistributive motive as transferring resources away from the rich towards the poor and middle class may not do justice to the redistributive politics of many developing countries; for example, transfers may instead be directed at key political constituencies, who often are not at the lowest income levels. Third, leaving out nonredistributive motives for taxation—especially priorities for building infrastructure and spending on education, health care, and social security—may distort the picture. Fourth, as noted earlier, the income-tax base is relatively less important than in developed countries. Fifth, the margin of activity for tax avoidance and evasion are key factors for developing countries. In the following sections, we show how consideration of these five issues provides a way of understanding why taxation is so low in developing countries.

The motive for holding power extends far beyond the ability to determine taxes. Moreover, in situations where the ruling group is less constrained by checks and balances, the range of ways it may enrich itself or its cronies can be vast. Indeed, the type of politics conducted in advanced countries based on tax-funded redistributive programs are much less destructive than the forms of government intervention that are typical in low-tax environments. The fact that protection of property rights is positively correlated with taxation, and the level of corruption is negatively correlated with taxation, is indicative of this. The genius of fiscal redistribution is the way in which it encourages a relatively open process where the rule of law is imposed and policies do not apply selectively or arbitrarily.

Finally, the Meltzer and Richards (1981) framework is inherently static, taking as given the structure of taxation and the level of economic development. Schumpeter's (1918) view of taxation, mentioned at the start, instead emphasizes how the nature of taxation is embedded in—and interacting with—economic, political, and cultural institutions. We turn next to a discussion of these institutions.

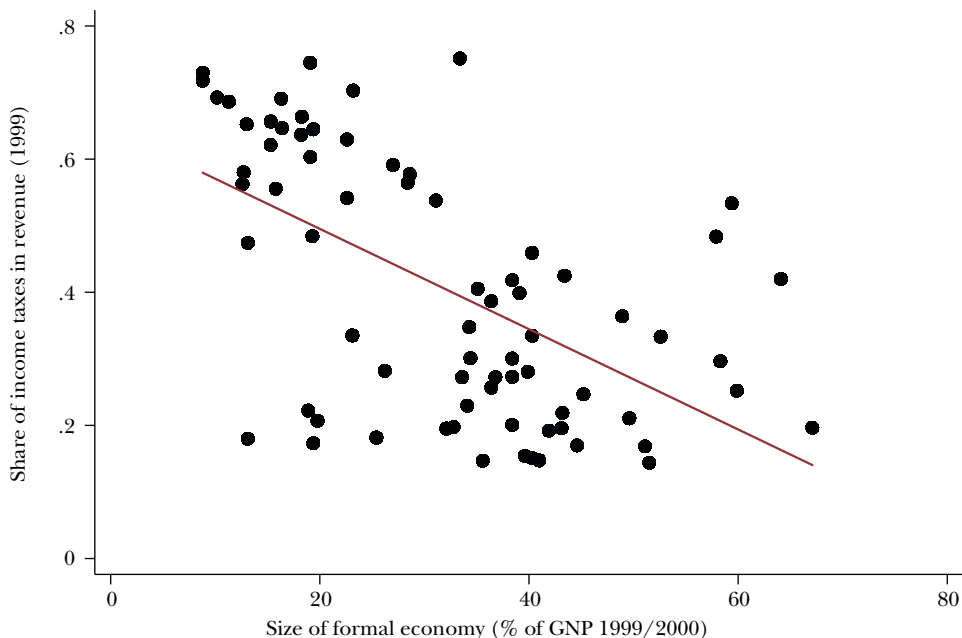
Economic Structure

Low-income countries typically have a large informal sector and many small-scale firms. They are also more likely to be dependent on a few natural resources or commodities and to receive foreign aid. This constellation of factors often pushes low-income countries toward a lower level of tax collections and a narrower tax base.

Informal and Small-Scale Firms

The large informal sectors in poor economies are inherently hard to tax (La Porta and Shleifer 2014, in this journal, discuss the desire to avoid taxes as an important motive for informality). Consider the preponderance of small-scale informal firms, such as street vendors or village shops, found through the

Figure 7

Share of Income Taxes in Tax Revenue versus Size of Informal Economy

Note and Sources: Figure 7 plots the size of the informal economy (from Schneider 2002) against the share of income taxes in total tax revenue (from Baunsgaard and Keen 2005), both variables from around the year 2000, for about 75 countries that appear in both data sources.

developing world. The incomes of these informal firms and their owners are hard to measure for tax purposes, and taxing their transactions is largely impossible in the absence of formal record keeping. Across countries, the size of the informal sector is strongly negatively related to income taxation. This is illustrated in Figure 7, which plots the size of the informal economy (from Schneider 2002) against the share of income taxes in total tax revenue (from Baunsgaard and Keen 2005), both variables from around the year 2000, for about 75 countries that appear in both data sources.

Having a large informal sector makes broad-based taxation of income next to impossible. It may also mean that the elasticity of taxable income with regard to the level of taxes is much higher than otherwise—that is, when the government of a country with a large informal sector tries to raise taxes, the taxable income reported to the government may drop substantially.

Thus, an increase in formality is a key part of the process by which taxation increases with development. While the relative size of the informal sector tends to shrink as an economy grows, economic growth may not automatically map into greater formality because government action plays a large part in the process. The

gradual construction of a functioning legal system makes it more attractive for firms to operate in the daylight of the formal economy, and if they wish utilize the benefits of the formal legal system, they cannot also remain invisible for tax purposes. In addition, the creation of credit and land registries to improve property-rights and contract enforcement may bring economic activity into the purview of tax authorities. This is particularly clear in the case of cadastral surveys (showing ownership and value of land), which typically began with tax purposes in mind. For example, the modern Swedish cadastral survey goes back to 1530, when it was introduced by King Gustav Vasa for the purposes of taxation. Scott (1998) emphasizes the importance of mapping land ownership in the history of European taxation.

Informal firms tend to be small: it is hard to take advantage of scale economies, to export and become multiplant—or eventually multinational—without relying on the formal legal system. Formal firms can be the basis for raising tax revenue because these firms operate on formal financial markets—they have bank accounts or outside investors who demand transparent accounting—and because tax authorities can use them to collect taxes from employees through income withholding. As Kleven, Kreiner, and Saez (2009) emphasize, income withholding also facilitates cross-checking of tax records between individuals and firms.

Aid and Resource Dependence

In the standard framework for tax determination, the government is solely responsible for financing of its spending needs. Another reason why the tax take is low in poor countries is that many countries receive significant aid flows, which are a significant fraction of GDP and often larger than domestically generated tax revenues. Moreover aid flows to the poorest countries of the world are large. For example, according to the World Development Indicators, the average share of aid in gross national income in a sample of low-income countries from 1962 to 2006 was around 10 percent. Availability of aid diminishes the incentive to take actions that would increase the domestic revenue base.

This argument is strengthened further in countries with endowments of easy-to-tax natural resources where taxation can use royalty payments. Around a quarter of the same sample of low-income countries (as defined in the figures above) have, in 2000, a share of petroleum exports that is more than 20 percent of GDP. The share of countries with economies heavily dependent on primary products is greater still.

Taxes from broad-based sources such as the value-added tax and income taxes will be lower where there is a greater access to other forms of revenue. In support of this idea, Jensen (2011) finds that a 1 percent increase in the share of natural resource rents in total government income is associated with a 1.4 percent lower share of taxation in GDP. While we do not know of research that convincingly demonstrates this conclusion, it is entirely possible that high foreign aid inflows and abundant natural resources have similar consequences, reducing the incentive to generate taxation from domestic sources. As an integral part of IMF stabilization

programs, the IMF Fiscal Affairs Department actively encourages governments to invest in legal and record-keeping steps that can help to build fiscal capacity. If aid dependence does indeed reduce domestically generated taxation, then the actions of the IMF could be viewed as second-best policy that counters some of the negative consequences of its aid.

Failure to Take Government Action

Taken together, these economic factors suggest reasons why poor countries have a smaller share of revenue in GDP: the combination of an informal economic structure, income from natural resources or specific commodities, and the availability of aid (for some countries) pushes many low-income countries into a situation of a low tax/GDP ratio levied on a narrow tax base and a narrow set of individuals. As economies grow, governments face the political challenge of restructuring and expanding tax bases.

Even though economic growth is important in widening the tax net and increasing the tax base, it does not mechanically translate into a higher tax take. For example, Piketty and Qian (2009) argue that increasing exemptions have led income-tax revenues in India to stagnate at around 0.5 percent of GDP since 1986. Widening the scope of taxation to broad bases, like income and value added, require conscious decisions to collect revenues and to modify the tax system to reflect developments in the wider economy. In China, tax revenues—especially at the central level of government—declined between 1978 and 1994, because government revenues had been dependent on funds generated in the state-owned sector, which was shrinking in relative size. However, China's tax revenues then increased since the major tax reform in 1994 (for example, World Bank 2012, Ch. 3).

To take advantage of growth and economic development requires the government to invest in improvements in the tax system. Figure 1 gave an example of a major fiscal innovation, the introduction of withholding of taxes from pay. This step requires a change a government policy along with a determination to ensure compliance. Without such measures, income-tax revenues may not increase significantly with development. Increasing the breadth of the sales-tax base or even introducing a value-added tax to widen the tax base also require direct policy change and are not an automatic by-product of economic growth.

That being said, structural change and the greater use of formal markets and formal firms reduce the costs of making such investments. Economic development yields a prospective tax-revenue dividend, as more economic activity becomes taxable in practical terms. But whether this change will actually generate more tax revenue also depends on government decisions. These decisions reflect the political institutions in place, to which we turn next.

Some structural change can also lead to losses of government revenues. Governments that try to control inflation lose access to seigniorage. Attempts to deregulate or privatize the economy may also lower implicit taxes that were previously available to the government, especially if the determination of wages and prices are

liberalized. This has been a particular issue for countries that are moving away from socialist towards market economies. Thus, China has yet to move towards a modern tax system using sales and to stop using the leasing of land as a means of raising state revenue. When transitions are accompanied by economic growth, such issues can be masked for some time. Ultimately, however, conscious reform is needed to build an effective tax system.

Political Institutions

On the surface, it seems obvious that low-income countries have much larger needs than high-income countries for investments in infrastructure and basic public goods and services. Indeed, the international aid movement since World War II is premised on this belief. Moreover, the World Bank and regional development banks exist in large measure to provide resources to developing countries to invest in public programs. As a corollary, the motive for raising tax revenues to fund basic services should, in theory at least, be extremely powerful in developing countries.

But whether revenues raised are channeled towards the highest needs depends upon the political equilibrium. In turn, this depends on how the political institutions in place determine the identity of the ruling group that decides on policy and the constraints faced by rulers once power has been acquired. The question of who has political control directly affects decisions about the level and type of taxation, and is based on political costs and benefits as perceived by incumbent groups. Additionally, politics influences how the proceeds of taxation are distributed, which feeds back to affect the political support for higher taxes.

Low Contestability of Power

While one should be wary of generalizations, political control by a wealthy elite is a fact in many low-income countries. These elites are protected by a variety of institutional mechanisms, including hereditary successions of power, military governments, and elite control of political parties. With such incumbent groups, policy will tend to cater to those with above-median incomes, reducing the motive for progressive taxation. Control of government by elite groups will also affect the use to which revenues are put. If contests for power become more open, we would expect the demand for redistributive progressive taxation to increase, as suggested by the Meltzer–Richards (1981) framework and the empirical evidence in Husted and Kenny (1997). According to Acemoglu and Robinson (2006), historical reforms to widen the voting franchise often reflected the fears of rich ruling elites that they would otherwise bear the economic cost of revolution.

The benchmark Meltzer–Richards (1981) model assumes that the proceeds of taxation are equally shared. However, redistribution can be selective in many ways. For example, spending on tertiary education tends to favor elites and their families, while basic health services are more likely to help the poor. To the extent that rich

ruling elites prefer private alternatives, the demand for using the fiscal system to redistribute is diminished. In those circumstances, we expect elite control to favor less public spending.

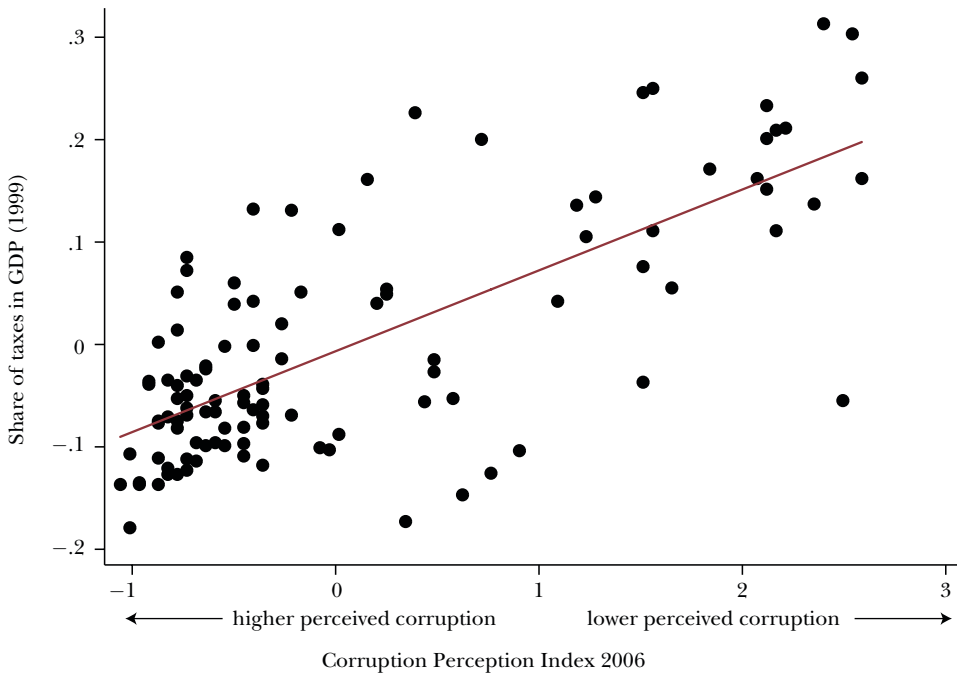
Weak Checks and Balances

Checks and balances on incumbent groups can help create a preference for more common-interest spending. A strong legislature will often find the need to generate broad-based coalitions, which can offset the narrow focus of the executive. An independent judiciary can also promote broad-based access to public services through statutory-service obligations or rights-based arguments and rulings. However, many low-income countries have contests for power that are highly restricted, with limits on who can vote as well as who can run for office. Low-income countries also tend to have weaker checks and balances on the executive. For example, according to the often-used Polity IV database, only 7 percent of the countries with the lowest one-third of per capita GDP had the strongest score (on a scale from 1 to 7) for the extent to which political institutions imposed executive constraints in 2000, compared to around 40 percent amongst countries ranked in the upper two-thirds by per capita GDP.

Whatever benefit–cost case economists can make for investing in broad-based spending programs like infrastructure, health, and education, in many low-income countries there is little problem identifying the need for such public programs; the problem comes in delivering them. Problems of service delivery reflect the twin problems of inefficiency and corruption. The broad macro fact is that countries with strong executive constraints at the national level tend to have lower levels of corruption. Of course, such correlations may not have a fully persuasive causal interpretation, but the logic supporting them is straightforward. Checks and balances should provide a stronger basis for scrutinizing public spending decisions and initiating systems of auditing that are essential for eliminating corruption. Therefore, it is perhaps not so surprising to find a strong positive correlation between less corruption and the level of taxation, as already shown in Table 1 and as further illustrated in Figure 8 (keep in mind, a higher Corruption Perception Index corresponds to *less* perceived corruption). This correlation is partly due to the fact that corrupt systems of government are likely to face greater resistance to increasing the power to tax. However, it also reflects the common determinants of state effectiveness in multiple dimensions—what, in Besley and Person (2011), we refer to as *development clusters*. Different capacities of the state coevolve both because state competence increases in general and because of common underlying determinants, including institutions.

A growing number of microeconomic studies have looked at whether stronger monitoring may reduce corruption and improve service delivery in low-income countries. The results are mixed. Among these studies, Olken (2007) presents evidence from a randomized field experiment on approaches to reducing corruption in more than 600 road projects in Indonesia with systematic discrepancies

Figure 8
Corruption and Fiscal Capacity



Note and Source: We use Transparency International’s Corruption Perceptions Index 2006, according to which 0 indicates high perceived corruption and 10 indicates low perceived corruption. Share of taxes in GDP is from Baunsgaard and Keen (2005).

between official project costs and cost estimates by independent engineers. In this context, community monitoring does not appear effective. However, Reinikka and Svensson (2005) study a newspaper campaign in Uganda aimed at reducing capture of public funds by providing parents with the information needed to monitor how local officials’ allocated education grants. This study finds a significant improvement in student enrollment and learning outcomes with community monitoring. These kinds of micro studies suggest country details and specific methods matter for the fight against corruption.

Less “leakage” in public spending programs is unlikely to be popular among the beneficiaries of corruption, especially rent-seeking bureaucrats and public-service providers. Some citizens may also benefit from the privileged access to public services that corruption can bring. Although such beneficiaries are likely to be a minority, they will lobby against corruption-reducing reforms. With pervasive corruption, the average citizen may be less inclined to support higher taxation and to comply with those taxes already in place. The next section turns to the cultures and norms that support a willingness to cooperate with taxation.

Culture, Norms, and Identity

Intrinsic motives to pay taxes and to follow the law are also important determinants for tax compliance, in addition to the material costs and benefits of tax compliance emphasized by economists since the seminal paper by Allingham and Sandmo (1972). A variety of authors in different social sciences have discussed the ethics of tax-paying in various terms: for example, Gordon (1989) refers to individual morality, Cowell (1990) to stigma, Erard and Feinstein (1994) to feelings of guilt and shame, Posner (2000) to tax-compliance norms, and Torgler (2007) to tax morale. (In this symposium, the paper by Luttmer and Singhal focuses on these tax-morale issues.) What unites these approaches is an argument that creating a culture of compliance may be central to raising revenue. Thus, one reason why low-income countries have lower levels of taxation may be a weaker ethic of tax-paying than the one that has evolved in high-income countries. The absence of a strong compliance norm means that any given statutory level of taxation will raise less revenue than would otherwise be expected.

However, there is little consensus on these ideas and their empirical importance, especially in the context of low-income countries. For example, high corruption or the perception that a tax system is unfair may hinder the emergence of a norm of compliance—but then the underlying problem is the corruption and unfairness, not the social norm as such. One interesting implication is that norms can introduce strategic complementarities in individual compliance decisions as they become established. There could even be tipping points in compliance if the emergence of a norm depends on believing that paying taxes is a virtuous act. Such multiplier effects may result in big returns to investments in an improved legal code, greater importance of formal firms, tax monitoring, property registries, and the like.

But to evaluate such possibilities properly requires more research on the *interactions* between individual material motives and social motives for paying taxes, which have so far been studied separately almost without exception. To make empirical progress on the importance of social norms for tax compliance also requires developing models with clear predictions—especially on interactions between individual and social motives to pay taxes—that can be taken to the data.

Benabou and Tirole (2011) provide a useful starting point by providing a general model where social motives tied to norms—emanating from a desire to acquire a social reputation—can alternatively strengthen (crowd in) or weaken (crowd out) stronger individual motives tied to laws. In Besley, Jensen, and Persson (2014), we consider a dynamic extension of that model and apply it empirically to compliance with local property taxes in the United Kingdom. Exploiting natural experiments both at the aggregate and local levels, we find evidence for considerable persistence in the social norms for tax compliance, as well as for significant interactions between individual incentives and social norms.

Tax-compliance norms may also emerge in part from a strengthened sense of national identity. Many weak states also exhibit a weak sense of national identity

among their citizens. This is one way of understanding the classic Hintze (1906) and Tilly (1990) argument linking war and taxation discussed above. It is also consistent with a positive correlation in the data between tax revenue and years spent in war. Figure 1 also showed a marked increase in taxation around the time of the two world wars that was not reversed after the war. In some countries, it has been argued that conducting war has been a source of common interests, both in terms of persuading citizens of the need for higher taxation and in establishing a norm of taxpaying (for example, Feldman and Slemrod 2009). If norms of tax compliance are indeed persistent, the revenue effects may last long after the war has ended. The patterns in Figure 1 suggest a persistent rather than a transitory effect of the two world wars.

A similar argument also applies to the negative correlation between ethnic fractionalization and tax revenue. This mirrors the well-known argument that country borders contrived by colonial powers in Africa created ethnically fragmented polities with detrimental developmental consequences (for example, Easterly and Levine 1997). But fragmentation is unlikely to be given and immutable, so the question relevant for policy is what factors might alter ethnic identification over time. As Bates (1974) argued, the creation of independent post-colonial states in Africa drove stronger identification with pre-existing ethnic groups to compete for the spoils of state patronage. When ethnic tensions are strong enough to promote civil war, such war—in contrast to wars between nation states—could increase animosity between groups and reduce national identity.

State Building

For low-income countries, extending the scope for taxation is a dynamic process that requires forward-looking investments in institutions. Governments make decisions about what tax bases to operate and what administrative and compliance structures to put in place. One good example is the decision to introduce direct withholding from pay, which is central to broad-based income taxation (as illustrated earlier in Figure 1). Another good example would be the resources spent on organization and training in tax authorities. Because these choices have long-term consequences, in Besley and Persson (2009, 2011), we refer to them as *fiscal-capacity investments*.

In this dynamic view, current decisions to introduce or modify tax systems affect the level of taxation in the future. An investment that reduces the leakage from income taxes due to base-broadening will both yield higher tax revenue in the future and change the incentives for future governments to raise revenues from the income tax. This insight suggests that one can think of investments in fiscal capacity as (partly) strategic and forward looking.

Taxation and Weak States

Taxation has played a central role in the development of states. Throughout history, struggles over revenue have been at the heart of state power. One of the

founding documents of modern constitutional governments, the 1215 Magna Carta in England, had the authority to raise tax at its very core. It enabled the state of that time to move towards a centralized system of tax setting, in which Parliament had a role. Historical accounts of development of the fiscal state in France (such as Dincecco 2011) argue that centralization of tax-setting power was a more recent phenomenon. On this view, taxation is a key aspect of the coercive power of the state. As such, it is intimately linked to establishing law and order within a territory.

States that fail to raise significant revenues in GDP also commonly fail to protect property rights effectively (as illustrated earlier in Table 1). Taxation is a rule-based form of revenue extraction that suits a market economy. Market relations become the base of revenue generation. Hence, any government that desires to tax will also have an incentive to build those institutions that support formal markets. For example, building a formal financial system will create the basis for more effective taxation of firms and individuals. Because the establishment of the rule of law helps improve the functioning of markets, the building of fiscal capacity is tied in a complementary way to building state effectiveness along other dimensions.

In the end, taxation is therefore not just about building the coercive power of the state but changing the way in which that coercion is channeled. Expropriation and other more damaging forms of extraction by the state are replaced by the more benign case of rules-based taxation.

But the tax/GDP ratio in modern high-income countries is high for reasons that go beyond coercion. In these countries, government faces a number of legal and practical constraints—including a real possibility of being voted out of office. Economic institutions, political institutions, and social and cultural norms have all evolved in a way that supports a broad tax base and a reasonable degree of tax compliance. The demand for accountable and transparent government is fueled by citizens who are aware of the need to ensure that tax revenues are wisely spent.

For modern low-income countries, the problem of raising more tax revenues is ultimately a wider issue than having the right kind of technical expertise. Government institutions and tax systems evolve together, and taxation may feed back to the development of political systems (as argued for example, by Levi 1988). Weak and unaccountable states are unlikely to have strong motives to build fiscal capacity, and their citizens are unlikely to evolve strong norms of compliance. This is a classic problem of positive feedbacks, which can yield good and bad equilibrium paths.

What Sequence for State-Building

Many organizations offer technical assistance to countries that wish to improve the operation of their tax authorities. Some aspects of policy may soon be informed by evidence based on randomized interventions. For example, Khan, Khwaja, and Olken (2014) work with the property-tax department in Punjab, Pakistan, to assign property-tax units into one of three performance-pay schemes or a control group. They find that incentivized units display average revenue growth 9 percent

higher than the control group. As with much evidence generated from randomized control trials, a key issue is whether governments are willing to change in the wake of empirical evidence.

Ultimately the most striking observation is the basic fact, stressed at the beginning of this paper, that developing countries today are not so different—in terms of the tax share in GDP, and the structure of taxation—from modern high-income countries at a similar stage of development. This pattern suggests that low taxation may reflect a range of factors that also help to explain why low-taxing countries are poor. From this perspective, the most important challenge is taking steps that encourage development, rather than special measures focused exclusively on improving the tax system.

References

- Acemoglu Daron, and James Robinson.** 2006. *Economic Origins of Dictatorship and Democracy*. Cambridge University Press.
- Allingham, Michael G., and Agnar Sandmo.** 1972. "Income Tax Evasion: A Theoretical Analysis." *Journal of Public Economics* 1(3–4): 323–38.
- Bates, Robert H.** 1974. "Ethnic Competition and Modernization in Contemporary Africa." *Comparative Political Studies* 6(4): 457–84.
- Baunsgaard, Thomas, and Michael Keen.** 2005. "Tax Revenue and (or?) Trade Liberalization." Mimeo, IMF.
- Benabou, Roland, and Jean Tirole.** 2011. "Laws and Norms." NBER Working Paper 17579.
- Besley, Timothy, Anders Jensen, and Torsten Persson.** 2014. "Norms, Enforcement and Tax Evasion." http://people.su.se/~tapers/papers/Draft_140302.pdf.
- Besley, Timothy, and Torsten Persson.** 2009. "The Origins of State Capacity: Property Rights, Taxation, and Policy." *American Economic Review* 99(4): 1218–44.
- Besley, Timothy, and Torsten Persson.** 2011. *Pillars of Prosperity: The Political Economics of Development Clusters*. Princeton University Press.
- Bräutigam, Deborah A., Odd-Helge Fjeldstad, and Mick Moore, eds.** 2008. *Taxation and State-Building in Developing Countries: Capacity and Consent*. Cambridge University Press.
- Cowell, Frank Alan.** 1990. *Cheating the Government: The Economics of Evasion*. Cambridge, MA: MIT Press.
- Dincecco, Mark.** 2011. *Political Transformations and Public Finances: Europe, 1650–1913*. Cambridge University Press.
- Easterly, William, and Ross Levine.** 1997. "Africa's Growth Tragedy: Policies and Ethnic Divisions." *Quarterly Journal of Economics* 112(4): 1203–50.
- Erard, Brian, and Jonathan Feinstein.** 1994. "The Role of Moral Sentiments and Audit Perceptions on Tax Compliance." *Public Finance* 49(Special Issue on Public Finance and Irregular Activities): 70–89.
- Fearon, James D.** 2003. "Ethnic and Cultural Diversity by Country." *Journal of Economic Growth* 8(2): 195–222.
- Feldman, Naomi E., and Joel Slemrod.** 2009. "War and Taxation: When Does Patriotism Overcome the Free-Rider Impulse?" Chap. 8 in *The New Fiscal Sociology: Taxation in Comparative and Historical Perspective*, edited by I. W. Martin, A. K. Mehrotra, and M. Prasad. Cambridge University Press.
- Gordon, James P. F.** 1989. "Individual Morality and Reputation Costs as Deterrents to Tax Evasion." *European Economic Review* 33(4): 797–804.
- Gordon, Roger, and Young Lee.** 2005. "Tax Structure and Economic Growth." *Journal of Public Economics* 89(5–6): 1027–43.

- Hintze, Otto.** 1906. "Military Organization and the Organization of the State." (Reprinted in 1970 as chap. 5 in *The Historical Essays of Otto Hintze*, edited by Felix Gilbert. New York: Oxford University Press.)
- Husted, Thomas A., and Lawrence W. Kenny.** 1997. "The Effect of the Expansion of the Voting Franchise on the Size of Government." *Journal of Political Economy* 105(1): 54–81.
- Jensen, Anders.** 2011. "State-Building in Resource-Rich Economies." *Atlantic Journal of Economics* 39(2): 171–93.
- Khan, Adnan Q., Asim I. Khwaja, and Benjamin A. Olken.** 2014. "Tax Farming Redux: Experimental Evidence on Performance Pay for Tax Collectors." <http://economics.mit.edu/files/9646>.
- Kleven, Henrik, Claus Thustrup Kreiner, and Emmanuel Saez.** 2009. "Why Can Modern Governments Tax So Much? An Agency Model of Firms as Fiscal Intermediaries." NBER Working Paper 15218.
- La Porta, Rafael, and Andrei Shleifer.** 2014. "Informality and Development." *Journal of Economic Perspectives* 28(3): 109–26.
- Levi, Margaret.** 1988. *Of Rule and Revenue*. Berkeley: University of California Press.
- Maddison, Angus.** 2001. *The World Economy: A Millennial Perspective*. Paris: Organization for Economic Co-operation and Development.
- Mitchell, Brian R.** 2007. *International Historical Statistics: Volume 1: Africa, Asia and Oceania 1750–2005; Volume 2: The Americas, 1750–2005; Volume 3: Europe, 1750–2005*, Palgrave Macmillan.
- Meltzer, Alan, and Scott Richards.** 1981. "A Rational Theory of the Size of Government." *Journal of Political Economy* 89(5): 914–27.
- Olken, Benjamin A.** 2007. "Monitoring Corruption: Evidence from a Field Experiment in Indonesia." *Journal of Political Economy* 115(2): 200–249.
- Olken, Benjamin A. and Monica Singhal.** 2011. "Informal Taxation." *American Economic Journal: Applied Economics* 3(4): 1–28.
- Piketty, Thomas, and Nancy Qian.** 2009. "Income Inequality and Progressive Income Taxation in China and India, 1986–2015." *American Economic Journal: Applied Economics* 1(2): 53–63.
- Posner, Eric A.** 2000. "Law and Social Norms: The Case of Tax Compliance." *Virginia Law Review* 86(8, Symposium on the Legal Construction of Norms): 1781–1819.
- Reinikka, Ritva, and Jakob Svensson.** 2005. "Fighting Corruption to Improve Schooling: Evidence from a Newspaper Campaign in Uganda." *Journal of the European Economic Association* 3(2–3): 259–67.
- Roberts, Kevin W. S.** 1977. "Voting over Income Tax Schedules." *Journal of Public Economics* 8(3): 329–40.
- Romer, Thomas.** 1975. "Individual Welfare, Majority Voting and the Properties of the Linear Income Tax." *Journal of Public Economics* 4(2): 163–68.
- Schneider, Friedrich.** 2002. "Size and Measurement of the Informal Economy in 110 Countries around the World." Unpublished paper.
- Schumpeter, Joseph A.** 1918. "The Crisis of the Tax State." In *International Economic Papers*, vol. 4, pp. 5–38.
- Scott, James C.** 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. Yale University Press.
- Tilly, Charles.** 1990. *Coercion, Capital and European States, AD 990–1992*. Oxford: Blackwell.
- Torgler, Benno.** 2007. *Tax Morale and Tax Compliance: A Theoretical and Empirical Analysis*. Cheltenham, UK: Edward Elgar.
- World Bank.** 2012. *China 2030: Building a Modern, Harmonious, and Creative Society*. Washington, DC: World Bank.