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Overview of Tax Policy in Developing Countries
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Tax

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This volume provides a detailed assessment of the current tax structure in six developing countries: Argentina, Brazil, India, Kenya, Korea, and Russia. Each of the six case studies lays out the current statutory provisions, how they have evolved over time, the resulting changes in tax revenue, and the key fiscal pressures faced currently looking forward.[1] The volume includes in addition two overview papers that reassess the conventional wisdom about the appropriate design of tax policy in developing countries.

As is seen from Table 1, these six countries include some of the poorest and some of the richest among developing countries. As of 2004, per capita GDP in Korea and Russia was well over $10,000, in Argentina and Brazil it was a bit under $4,000, while India’s per capita income was only $695 and Kenya’s only $469.

Populations also differ dramatically. India's population is over a billion, Brazil is the next largest with a population of 182 million, while Korea, Argentina, and Kenya are all roughly a quarter as large. The countries cover all parts of the globe. The three largest of these countries have a federal system of governments, while in the remaining three countries the national government plays a dominant role.

The tax systems in these countries, while largely typical of those in other developing countries, are strikingly at odds with the conventional wisdom in the public finance literature for the optimal design of a country's tax structure. To begin with, the public finance literature at least since Mirrlees (1971) focuses heavily on the optimal rate structure under the personal income tax as a means of best trading off equity and efficiency considerations in the collection of tax revenue. Reflecting this focus in the academic literature, the personal income tax is typically the main source of tax revenue among developed economies.[2] As seen in Table 1, though, the personal income tax plays little role in any of these six countries. The presumption must be that the countries are not in a position to monitor enough of the income accruing to each individual to make an income tax a feasible option.

These countries do collect a quarter to a fifth of their tax revenue with a value-added tax, a tax also used heavily among developed countries. Since the VAT (Value Added Tax) is a proportional tax without any exemptions for the poor, though, developed countries tend to supplement use of the VAT with more generous social safety-net programs. While not a focus of this volume, developing countries including these six largely do not have equivalent such safety-net programs, leaving more of a tax burden on the poor with a VAT than with an income tax.

The optimal taxation literature also recommends equal tax rates on all forms of consumption, as seen for example in Atkinson-Stiglitz (1976).[3] Developing countries have over time been replacing excise taxes, where rates often varied dramatically by good, with a VAT with one or at least only a few rates. The effective rates, though, are low due to a combination of exempt (or zero-rated) goods and evasion. As seen using the figures in Table 1, for example, the effective VAT rate (VAT revenue as a fraction of consumption) varies from 4 percent in Russia to 12 percent in Brazil.

One other standard result from the optimal tax literature is that a small open economy should take full advantage of any gains from trade, and not distort trade patterns. As seen in Table 1, tariffs are a significant source of revenue, except in Brazil and Korea. The papers provide some indication, though, that these tariffs may be serving to offset differential tax rates across domestic industries, with higher tariff rates in industries where domestic firms face higher domestic tax rates. To this extent, these tariffs may lessen rather than exacerbate trade distortions.

The optimal taxation literature also concludes that a country that is small relative to the world capital market should not distort international flows of capital. Yet we see in these countries that the corporate income tax is an important source of tax revenue, collecting on average even more than do personal income taxes.[4]

Another striking characteristic of the tax structures in these six countries is the low tax revenue relative to GDP. Here, Brazil is an outlier, with government revenue equal to 35 percent of GDP, a figure approaching those seen among some richer countries. The next highest among this group of countries is Korea with revenue equal to 25 percent of GDP, while India collects only 15 percent of GDP in tax revenue. While the revenue figures for Brazil (and to some extent Argentina) have been growing over time, in most of these countries tax revenue has not changed much as a fraction of GDP during the past twenty years.

These low tax revenue figures do not seem to reflect countries choosing relatively low tax rates.[5] For example, top personal tax rates are now around 30 percent in these countries, VAT rates range from 10 percent in Korea to around 27 percent in Brazil, while corporate tax rates among these countries range from 25 percent in Brazil to 35 percent in Argentina.[6]

The key difference in the fiscal situation faced in these and other developing economies, compared with the situation among developed economies, is much greater difficulties in tax administration and enforcement. Partly the problem is that many firms can evade tax entirely, operating in the informal economy. Table 1 reports estimates from Schneider (2005) of the size of the shadow economy in these six economies, as a fraction of GDP.[7] The estimated size of the informal economy ranges from a quarter to a half of GDP.

In addition, even firms that are part of the formal economy can easily understate their tax base. The papers provide many examples of such techniques. Among them: Sales can occur in cash, leaving no paper trail. Under the VAT, firms can claim that goods were exported (in order to qualify for a zero tax rate) even if the goods never left the country or were quickly smuggled back into the country for resale. Firms can exaggerate expenses using fake invoices. Firms can use transfer prices to shift profits or value-added into a firm that then disappears without paying the associated taxes, or at least into a firm subject to a lower tax rate. Effective tax rates as a result can be much below the statutory tax rates, [8] and can vary dramatically by industry[9] and by size of firm.

Attempts by governments to aid certain sectors have in practice opened up further evasion opportunities. The Russian government, given its lack of direct assistance to invalids, tried to provide indirect aid by granting a tax exemption to firms where invalids constituted at least 50 percent of the employees. This encouraged some of the most profitable capital-intensive firms to put just enough invalids on the books to qualify for this tax exemption. Both India and Russia grant tax preferences to firms located in particular regions. In response, firms can set up a subsidiary in such regions and use transfer pricing in order to report most of its profits (or value-added) there.[10]

Surprisingly, perhaps, none of the papers mention capital flight. Perhaps reflecting this threat, however, many of these countries have very low effective tax rates on income from financial assets.

With evasion such a dominant issue, countries face additional pressures to lower tax rates, in order to draw firms into the formal economy and to reduce the incentives on those already in the formal economy to underreport their income or value-added. For example, several of these countries use presumptive taxes for smaller firms, with the effective tax rate much lower than for larger firms. With lower tax rates reducing evasion as well as increasing overall economic activity, it is much more likely that countries have the opportunity to reduce tax rates and yet gain revenue on net. For example, India has reduced its personal and corporate income tax rates dramatically in recent years, yet income tax revenue has doubled as a fraction of GDP. Similarly, Korea reduced its effective corporate tax rate from 53 percent to 27 percent, while corporate tax receipts doubled as a fraction of GDP.

These governments have also pursued a variety of other means to deal with enforcement problems. To limit the revenue loss from firms underreporting sales under the VAT, for example, several of the papers emphasize that governments are not willing to provide cash rebates to firms reporting negative value added, instead requiring firms to carry forward these credits to use against future tax liabilities. Yet firms that export a sizeable fraction of their output, and firms that have large new investments, would legitimately have negative value-added. The restriction preventing rebates then leads to an effective tax rate for these firms exceeding the statutory tax rate. According to the paper on Kenya, when firms sell to the government the government directly withholds the VAT due on these sales, yet is very slow (at best) to rebate the VAT already paid by these firms on inputs they purchased, yielding an effective tax rate much above the statutory tax rate.

To reduce the attractiveness of using cash as a means of tax evasion, several of these countries impose a tax on bank debits (Argentina, Brazil, India, and Korea).[11] In part, information on these withdrawals also provides information that is helpful in locating evading firms. In addition, Korea has created a subsidy to use credit cards, presumably hoping to shift transactions to a form that can be monitored and taxed more easily.

Another approach for lowering tax evasion, emphasized by the paper on India, is government control over key firms. The paper reports that 38 percent of the income tax revenue and 42 percent of VAT payments come from public enterprises. Similarly, in Korea a large fraction of revenue comes from a few large firms, which have incentives to cooperate with the government in exchange for easy access to credit and implicit loan guarantees.

Effective tax rates can also vary from statutory tax rates due to unchecked enforcement powers of the tax authorities. When tax officials are given incentives simply to collect more revenue, it is not surprising that they do so even beyond what the statutes would allow. When officials have such unchecked powers, of course, corruption is inevitable. Several of these countries have set up independent tax authorities, in order to free the tax authorities from political influence and also from civil service restrictions.

Another approach mentioned is to give taxpayers better access to the courts to appeal unreasonable assessments.

In sum, given the conflicting pressures from evasion and overaggressive enforcement, the tax law in practice can have little relationship to the statutory provisions. Kenya, for example, reports tax revenue equal to 20 percent of GDP even while Eissa and Jack (this volume) estimate that only 30 percent of GDP is part of the formal economy so subject to tax. While this suggests that the effective average tax rate on the formal sector is around two-thirds, the top statutory income tax rates are only 30 percent and the top VAT rate is only 16 percent. The papers from Argentina and Brazil also suggest that effective tax rates can be extremely high.[12]

This large variation in effective vs. statutory tax rates of course raises serious questions about the analysis of tax reforms on the economy. What matter for economic activity are effective tax rates. How these vary as statutory tax rates change may not be at all clear, raising serious challenges in forecasting the effects of possible tax reforms on economic activity or on government tax revenue.

One other issue mentioned in the papers for the larger of these countries is fiscal federalism. Regional and local governments in these countries commonly have responsibility for a substantial fraction of overall government expenditures. Countries in response give regional/local governments control over particular taxes, often the VAT. However, a VAT is an awkward tax for a regional government, given the administrative difficulties of monitoring interregional trade.

As a result, these national governments normally help to finance regional and local governments. One mechanism of course is direct grants. More common among these countries, though, is a formula allocating some fraction of the revenue from some taxes collected by the national government to the region where the taxes were collected. India faces particular complications here, since their constitution allocates control of the income tax on the nonagricultural sector, the VAT on manufacturing, and taxation of services, to the national government and taxes on other sectors to regional and local governments. Exempting agriculture from national income taxes in practice creates ample opportunities for tax evasion. Trying to create a well-functioning VAT with common rates at one stage of production and differential rates on other stages, with workable cross-state crediting arrangements, has also proven to be a serious problem.

Together these papers suggest that the key problem these countries will face in the future is improving tax administration. Effective tax rates vary dramatically across firms and individuals in the economy, due both to aggressive enforcement where enforcement is easy and extensive evasion where it is not. The result is very high tax rates on a narrow tax base and low overall tax revenue. Taxes as a result can be highly distorting even while they collect relatively little revenue.

How best to improve tax administration of course is a difficult problem, and one these papers only touch on. One approach mentioned is to improve the incentives faced by tax officials, so that their objective is to enforce the law rather than simply to collect revenue. Another is to improve the oversight over these officials, perhaps through the courts. The papers also emphasize the importance of improving the quality of information available to tax officials. This can be done by sharing information among different tax departments (e.g. those overseeing the income tax, the VAT, and customs duties) or among tax departments in different regions. It can be done by collecting new information, for example on bank transactions or securities transactions. It can also be done by trying to tax activities that are more readily observable, e.g. property sales rather than property values. Given the main problems described in these papers, here is where future tax reform efforts inevitably will need to focus.

Given the results of these six case studies, the volume includes as well two overview papers. The first, by Stiglitz, reexamines the merits of relying on a value-added tax as a major source of revenue among developing countries. While a VAT may be a relatively non-distorting tax in richer countries, the six case studies provide ample evidence that a VAT can be highly distorting in poorer countries. The large informal sectors in these countries evade the tax entirely, while the formal sector can evade a substantial fraction of the tax, e.g. through fake invoicing or income shifting to informal firms or other formal firms that face much lower tax rates. Even with this extensive evasion in the formal sector, a VAT nonetheless discourages formal activity, and likely economic development.

The question the paper then asks is how best to reduce these economic costs. One recommendation is to tax imports at a rate above the VAT rate. This surtax would still be rebated for imports purchased by formal firms, but raises the effective tax rate on the informal sector. By reducing the differential tax rates across sectors, economic efficiency should increase.

The second overview paper by Gordon focuses on the low reported tax revenue in developing countries, examining in particular the experiences in China and India. In both countries, tax revenue during the initial years of their economic reforms came from a narrow tax base facing high tax rates. In the case of China, non-state firms paid little in tax revenue, at least to the national government. In the case of India, national revenue came heavily from the manufacturing sector. Services, even though, they generated half of GDP, were untaxed.

When a country faces such a narrow tax base, with effective rates varying dramatically by sector, on second-best grounds a variety of restrictions on economic activity may make sense, as described at more length in Gordon and Li (forthcoming). Tariffs may serve to offset differential tax rates by sector, whether from excise taxes or income taxes. Statutory rates may appropriately vary by sector, with lower rates in sectors where it is easier to shift into the informal economy. Restrictions on activity in the informal sector, with the evocative mnemonic in India of the "license Raj", can help in lessening the degree to which taxes unduly shift activity from the formal to the informal sectors.

Inflation may serve to inhibit activity in the cash economy. Here, Brazil represents a country where substantial inflation in earlier years led not only to an expansion of the size of the formal sector but also to a major expansion in the role of the financial sector. The resulting improvements in productivity in the financial sector, presumably due to learning by doing, kept the financial sector large even after the inflation rate fell.

The resulting policies favoring the formal sector, and in particular those industries facing the highest tax rates, may reduce the immediate efficiency costs due to differential tax rates by sector. However, the resulting difficulties faced by firms in the informal sector can easily reduce rates of entry, innovation, and growth. The overview paper by

Gordon then examines the fiscal implications of the economic reforms undertaken in both China and India, in each case reducing dramatically the extent of the "license Raj."

The result in each country was a rapid rate of entry, and (more so in China than in India) a sharp drop in tax revenue due to the fall in profits in the formal sector resulting from the increased competition. Without the prior restrictions, the differential tax rates on the formal vs. the informal sector become far more distorting. In spite of the fall in revenue, tax rates were cut in order to avoid further undercutting the formal sector.

This fall in tax revenue confronted each government with difficult choices: either government expenditures must fall or government debt must increase. The fall in expenditures can undercut development due to the resulting poor education and inadequate infrastructure. The fall also risks increasing political opposition to the reforms, since many individuals lose more from the drop in services than they gain from the new economic opportunities. Debt, in contrast, allows services to continue but creates the risk of a financial crisis if the government does not have the revenue in the future to repay the debt. China chose in part to cut services, and in part to finance remaining services through user fees. India initially borrowed heavily in order to maintain services, but recently has shifted instead to cutting services. To what degree this fall in services will undercut growth is yet to be seen.

A third alternative is to leave in place some provisions protecting the formal sector. Both countries for example maintained a sizeable state-owned sector. Both countries also relied on local governments to better monitor and tax smaller firms that could not effectively be monitored by the national government. Such provisions, while contrary to the conventional wisdom, may be important in reducing the risks faced when undertaking economic reforms.

With the immediate loss in current tax revenue from economic reforms, and the combined political and financial risks faced due to the resulting loss in tax revenue, economic reforms can seem daunting for any government that does not have a long time horizon. Problems with tax administration in developing countries not only create problems in raising current revenue, as documented at length in the six papers in this volume, but also create substantial hurdles when considering the adoption of policies that encourage a more rapid rate of economic growth.

<Insert Table 1.1>

Notes

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[1] The Russian study more narrowly focuses on the evolution of the value-added tax during the past fifteen years, given its complicated history.

[2] In the U.S. as of 2004, for example, the personal income tax together with the payroll tax collected 80 percent of Federal tax revenue.

[3] The key assumption is that consumption patterns do not vary by ability levels, even if they do vary by labor income.

[4] Among developed economies as a whole, corporate tax revenue on average is under half of personal tax revenue, and under a quarter of personal tax revenue in the U.S.

[5] Even when tax rates are low, as they commonly are among these countries for smaller firms, this choice seems to be in response to the threat that firms will shift into the informal sector if rates were any higher, rather than because the desired size of government expenditures is low.

[6] These rates are broadly comparable, for example, to those in the U.S., given that U.S. state income and retail sales tax rates together are roughly comparable to the VAT rates in these countries.

[7] The comparable figure among OECD countries, again according to Schneider (2005), is 16.3 percent

[8] The paper for Korea reports estimates that the effective VAT rate is only about 65 percent of the statutory rate. The paper for Argentina reports comparable figures averaging around 30 percent.

[9] The paper for India includes a table comparing the effective corporate tax rates among major corporate groups, and finds rates ranging almost uniformly between 0 percent and 40 percent.

[10] This apparently was the technique that the Russian firm Yukos used in order to reduce its tax obligations.

[11] Bank accounts may shift in response, though, to more informal cooperative banks that are not in practice subject to these taxes.

[12] The Brazilian paper uses the term "asphyxiating."

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