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Is Stagnation of Domestic Revenue in Low-Income Countries Inevitable?

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I. **Introduction**

The mobilization of domestic revenue has generally stagnated in low-income countries since the 1990s. Though progress in raising revenue in these countries began to accelerate by the mid-2000s, in line with the quickening of growth, the global recession has not only undercut the basis for significant progress in coming years but also caused immediate revenue declines.

Hence, the current conjuncture poses two major challenges. The first is immediate: identifying the means to recoup the revenue losses caused by a sharp slowdown in growth or recession in low-income countries. The second is more long-term: rectifying the underlying weaknesses in tax policy and administration that retarded progress over recent decades, even before the current crisis erupted.

In this CDPR Discussion Paper we focus on 1) the longer-term challenge and on 2) weaknesses in tax policy. Our hypothesis is that the reigning 'tax consensus' has placed an inordinate emphasis on domestic indirect taxes, and on the value added tax, in particular. We also believe that this consensus has advocated premature trade liberalization and needlessly weakened the basis for effective taxation of corporate and personal incomes.

As an initial reference for our evaluation, we start with the implications that reaching the Millennium Development Goals should have for domestic revenue mobilization. This approach contrasts with the recent prevalent use of static analysis, such as the preoccupation with whether domestic taxes are recouping the losses from lowering import tariffs—without considering whether total revenue has adequately increased.

In support of our approach, we refer to the UN Millennium Project, which stated in *Investing in Development*, its widely read report to the UN Secretary General in 2005, that a typical low-income country should be able to contribute additional public MDG financing equivalent to 4 percentage points of GDP over the 10 years between 2006 and 2015 (UN Millennium Project 2005, p. 245).

This is a modest performance yardstick. One of its implications is that most of the public financing for the MDGs would have to be external—principally through a ‘Big Push’ scaling-up of Official Development Assistance. As an alternative, we believe that focusing on promoting domestic resource mobilization is a more viable and desirable long-term strategy.

We expand slightly on the Project’s domestic-revenue yardstick by selecting 5 percentage points of GDP as a barometer of success in mobilizing domestic revenue and apply this yardstick, retroactively, to the period of 1990-2006. We believe that this performance standard represents a degree of ambition that is still moderate. We assume that reaching it should certainly be feasible.

We recognize, of course, that country performance could depend on the initial starting point. It should be easier, for example, for a low-income country to raise its total revenue from 10% of GDP to 15% than to raise it from 15% to 20%. We take the view that almost all low-income countries should be proactively striving to raise their levels of revenue. Revenue levels under 15% of GDP should be regarded, we believe, as unacceptably low; and those countries having already reached 15% should be encouraged to lift it to 20% of GDP.

In order to test our yardstick of 5 percentage points of GDP against reality, we have assembled revenue data over the period 1990-2006 for samples of low-income countries with relevant data in sub-Saharan Africa, South/Southeast Asia and Central Asia. When we group countries together for regional comparisons, we use simple unweighted averages since we are interested in assessing country-level performance rather than regional performance.

We also group the data for the overall trend in total revenue for these three samples into averages for three periods: 1990-94, 1995-99 and 2000-06. We have done this, in part, because it helps eliminate temporary oscillations that can be unrepresentative of sustained progress. This grouping of years by averages also implies that we are evaluating progress, in effect, over an 11-year time span (namely, between the midpoint years of 1993 and 2003).

For some countries, such averaging might serve to understate their degree of progress between the respective end-points (that is, between 1990 and 2006). But such endpoints could well be unrepresentative. The uneven availability of data for the 1990s is one limiting factor. Also, the recent global crisis has already caused the progress achieved by 2006, our most recent end-point, to be unsustainable.

We have tested the use of such end points against our period averages and found that such an approach does not lead to qualitatively different results.

Our general findings suggest that in sub-Saharan Africa and South and Southeast Asia, progress in mobilizing domestic revenue by low-income countries has been remarkably slow. In our small sample of low-income countries in Central Asia, whose histories have been markedly different from those in the other two regions, progress has been more credible.

II. **Trends in Total Revenue and Tax Revenue**

Trends in Sub-Saharan Africa

Our sample for sub-Saharan Africa includes 29 low-income countries.[iii] Our selection of countries was restricted by the availability of tax data disaggregated into its three major subcomponents, i.e., trade taxes, domestic indirect taxes and direct taxes. Such a disaggregation constitutes a major basis for our analysis.[iv]

Total revenue only increased overall from an average of 13.3% of GDP during 1990-94 to 15.6% during 2000-06, or by 2.3 percentage points, less than half of our 5-percentage-point benchmark (Figure 1). The percentage increase was 17.4%. Had the average absolute increase been 5 percentage points, the percentage increase would have been about 37%.

Progress was very slow between 1990-94 and 1995-99: there was only a 5.3% increase in total revenue. But the pace of increase rose to 11.4% between 1995-99 and

2000-06. The 2000s were a period of rising exports and growth in sub-Saharan Africa, which should have produced significantly higher revenue than earlier. While GDP among our sample of countries was growing at 4.1% per year during 1995-99, this growth rate had reached 5.5% by 2000-06.

Figure 1

The rate of increase in total revenue was affected modestly by the trends in non-tax revenue. This part of revenue appeared to dip from an average of 2.4% of GDP during 1990-94 to 2.2% during 1995-99 but then increased to 2.7% of GDP during 2000-06. Trends in non-tax revenue in this region—as well as elsewhere—tend to be heavily influenced by a few resource-rich countries because a portion of resource-related revenues often show up in this component.

Total tax revenue increased overall in low-income countries in sub-Saharan Africa from an average of 10.9% of GDP during 1990-94 to 12.9% of GDP during 2000-06, or by a mere 2 percentage points (Figure 1). So, overall revenue performance in this region has been relatively poor.

Trends in South and Southeast Asia

There are far fewer low-income countries in Asia. And our sample has been further limited by the availability of tax data for such countries. For our analysis, we have been able to assemble relevant data for seven countries, which are located in South and Southeast Asia (Bangladesh, Cambodia, India, Lao PDR, Nepal, Pakistan and Vietnam).

Because of the lack of data for 1990-1994 for some countries, we have been able to systematically cover only the periods of 1995-99 and 2000-06. In light of this restriction, we take a 3 percentage point increase in total revenue as our benchmark of success (since the period of the 2000s includes more years and its growth tended to be faster than in the 1990s).

Surprisingly, average levels of both total revenue and tax revenue in South and Southeast Asia are relatively low compared to those for sub-Saharan Africa.[v]

Additionally, for our sample, total revenue increased slowly—from an average of 12.5% of GDP during 1995-99 to only 13.7% of GDP during 2000-06, or by only 9.6%. The absolute increase was only 1.2 percentage points. This is less than half of our benchmark of 3 percentage points of GDP (Figure 2).

Many of these countries were growing at relatively healthy rates during the 2000s, so one would have expected larger increases. While the average growth rate of GDP in our sample of seven low-income countries was 5.7% during 1995-99, this rate rose to 6.4% during 2000-06—and during 2004-06 alone it reached 7.6%.

Total tax revenue in our sample of seven Asian low-income countries increased by even less than total revenue. While average tax revenue was a very low 9.8% of GDP during 1995-99, it rose to only 10.6% during 2000-06, that is, by just 0.8 percentage point (Figure 2). At the same time, non-tax revenue added the other 0.4 percentage point of increase, rising from 2.6% of GDP to 3.0%.

Figure 2

Hence, progress in South/Southeast Asia has been similarly slow to that in sub-Saharan Africa. The former's revenue increases were comparable to those for sub-Saharan Africa when the latter's longer time period (1990-94 to 2000-06) is taken into account.

Trends in Central Asia

We have also tried to assemble data for the small number of low-income countries in Central Asia, including for Mongolia (which is usually categorized as part of East Asia). We have succeeded in doing so for four countries: Kyrgyzstan, Mongolia, Tajikistan and Uzbekistan. Our data have been limited to the periods of 1995-99 and 2000-06 because relevant data are unavailable for some countries for the early 1990s, when their transition to more market-based economies began.

Arguably, some of these countries could have been considered low middle-income countries during the Soviet era even though statistics for national output during that period are not comparable to those for GDP since 1990. Nevertheless, all of these countries experienced significant drops in national income during the early 1990s and were accordingly classified as low-income.

The statistics on both total revenue and tax revenue suggest that these transition economies had already regained above-average levels by the mid-1990s and that, moreover, they still made significant progress between 1995-99 and 2000-06.

Total revenues in these four countries increased from 21.8% of GDP during 1995-99, already fairly high for low-income countries, to 25.2% during 2000-06, or by 3.4 percentage points. This is above our benchmark of 3 percentage points of GDP (Figure 3). This represents a 15.6% increase, noteworthy since the starting-point was already fairly high. Non-tax revenue exhibited no discernible increase, remaining at 3.3% of GDP.

Total tax revenue increased from 18.5% of GDP during 1995-99 to 21.9% during 2000-06. Understandably, it accounted for the full increase of 3.4 percentage points in total revenue (Figure 3).

While the level of tax revenue had reached almost 22% of GDP in these four countries, it was only about 13% in low-income countries in sub-Saharan Africa and less than 11% in South and Southeast Asia. These are substantial differences, indeed.

Figure 3

Hence, the performance of the four countries in Central Asia appears to be atypical of low-income countries during the period that we are examining. Likely reasons are the larger size of their formal sectors, as well as their greater state capacity to raise revenue.

The level of incomer per capita is not a decisive differentiating factor. While Mongolia has a fairly high level of income per capita for a low-income country, the other three countries have much more typical levels. For instance, Kyrgyzstan's gross national income per capita in 2006 was US$ 500 while Tajikistan's was only US$ 390.

III. Trends in the Components of Tax Revenue

In this section we disaggregate tax revenue into its three major components: domestic direct taxes (such as on income and wealth), domestic indirect taxes (such as on consumption of goods and services) and trade taxes (such as imports). We ignore mentioning the residual category, ‘other tax revenue’ (which includes miscellaneous fees and charges) except where it is an important factor.

Our main motivation in examining the disaggregated data is to try to lay an initial basis for explaining the anaemic trends in tax revenue in most low-income countries.

Sub-Saharan Africa

In our sample of 29 low-income countries in sub-Saharan Africa, all three major components increased as a percentage of GDP between 1990-94 and 2000-06. Indirect domestic taxes rose by the most, that is, by 1.5 percentage points—i.e., from 3.5% of GDP to 5.0% (Figure 4). This represents a credible percentage increase of almost 43%.

Direct taxes rose by only 0.9 percentage point—namely, from 2.9% of GDP to 3.8% (Figure 4). Trade taxes rose by even less, namely, 0.3 percentage point, or from 3.8% of GDP to only 4.1% (Figure 4). The latter represents a mere 8% increase.

Figure 4

So, while domestic indirect taxes contributed significantly to the MDG benchmark of achieving an additional 5 percentage points of GDP, the other two components performed more poorly.

Undoubtedly, trade liberalization played a role in slowing progress on trade taxes. Imports were growing faster than GDP in this region. Among our sample of 29 countries, imports as a ratio to GDP increased, for example, from 33.4% during 1995-99 to 38.8% during 2000-06. In addition, despite increases in their growth in the 2000s, these countries appeared to have had only moderate success in boosting direct taxes, such as on corporate and personal income.

Our basic hypothesis about the lack of revenue progress in sub-Saharan Africa is that the conventional advice provided on trade taxes and income taxes effectively eliminated any prospect that these countries would achieve significant gains.

South and Southeast Asia

The trends in South and Southeast Asia between 1995-99 and 2000-06 were different than in sub-Saharan Africa. Direct taxes increased by 0.9 percentage point of GDP, from 2.2% of GDP to 3.1% (Figure 5). This is a better performance than in sub-Saharan Africa, where the same increase was spread over a much longer period.

Part of the explanation is no doubt a faster rate of economic growth in Asia. GDP increased at rate of 5.7% per year in these countries during 1995-99 and 6.4% during 2000-06, significantly higher than in sub-Saharan Africa.

Figure 5

Domestic indirect taxes increased by 0.8 percentage point of GDP, from 3.8% of GDP to 4.6% (Figure 5). This percentage point increase is comparable to the 1.5 percentage point increase of such taxes in sub-Saharan Africa over a period almost twice as long.

But, most strikingly, trade taxes *declined* by 0.9 percentage point, i.e., from 3.1% of GDP to 2.2% (Figure 5). This decline occurred coincidentally with a significant rise in imports between the two periods, namely, from 31.9% of GDP to 37.6%.

The decline in trade taxes effectively nullified the positive performance of 0.9 percentage point of GDP by direct taxes in South/Southeast Asia. Hence, general progress on tax revenue in South/Southeast Asia was slower, overall, than in sub-Saharan Africa.

During 2000-06, South/Southeast Asia differed from sub-Saharan Africa primarily with regard to the level of trade taxes. While such taxes were 4.1% of GDP during 2000-06 in sub-Saharan Africa, they were only 2.2% of GDP in South/ Southeast Asia.

These results suggest that trade liberalization had been carried out more intensively in Asia. The shares of total tax revenue accounted for by both direct taxes and domestic indirect taxes in South/Southeast Asia were more comparable to those in sub-Saharan Africa.

The trends of tax components in Asia suggest that the increases in both direct and indirect domestic taxes were simply too modest to attain the feasible benchmark of 3 percentage points of GDP in the face of the absolute losses in trade taxes.

Central Asia

The relative progress of the three components in the four low-income countries in Central Asia was strikingly different from that in either South/Southeast Asia or sub-Saharan Africa.

The starting points in Central Asia also differed markedly. During 1995-99, direct taxes in the Central Asian countries were 7.5% of GDP—compared to only 3.3% in sub-Saharan Africa and 2.2% in South/Southeast Asia.[vi]

Also, domestic indirect taxes were far higher in Central Asia—namely, 8.4% of GDP during 1995-99 compared to 3.9% in sub-Saharan Africa and 3.8% in South/ Southeast Asia.

The higher levels of both direct and indirect domestic taxation in this region are likely to be due to factors such as more formalized economies and greater initial state capacity. Certainly, the historical development of these economies has been distinctly different from that in the other two regions.

In contrast to the other two tax components, trade taxes were significantly lower in Central Asia during 1995-99 than in sub-Saharan Africa or South/Southeast Asia: only 1.7% of GDP compared to 3.9% and 3.1%, respectively. It is likely that this resulted from the legacy of low trade barriers within the former Soviet bloc.

In addition to being relatively low, trade taxes in Central Asia stagnated between 1995-99 and 2000-06, starting at 1.7% of GDP and ending up at the very low level of only 1.8% (Figure 6). This level represented only a 9.4% share of total tax revenue despite the fact that imports were well above 50% of GDP in these countries during both 1995-99 and 2000-06.

Figure 6

The most important component of tax revenue in Central Asia, indirect domestic taxes, rose between 1995-99 and 2000-06 by 1.6 percentage points to reach 10.0% of GDP (Figure 6). Hence, this component ended up accounting, on average, for over 45.7% of all tax revenue during 2000-06. Meanwhile, direct taxes rose by 1.7 percentage points to reach 9.2% of GDP, or 42% of total tax revenue (Figure 6).

In other words, tax revenue rose significantly in Central Asia between 1995-99 and 2000-06 because of substantial contributions from both direct and indirect domestic taxes. A sharp rise in economic growth undoubtedly assisted this process. During 1995-99, the yearly growth of GDP in these four countries was only 1.6%, as they were still struggling with the difficulties of the transition. By 2000-06, however, their yearly GDP growth had risen to 6.1%.

IV. **Country-Level Performance**

Next, we examine the performance of individual countries in the three regions. What we find is that there is a shortage of 'success stories'.

Sub-Saharan Africa

In sub-Saharan Africa, over the relatively long period of 1990-94 to 2000-06, only five countries succeeded in boosting their total revenue by 5 percentage points or more of GDP. These include Sudan (9.2 percentage points), Mauritania (8.2 percentage points), Ghana (7.5 percentage points), Rwanda (6.0 percentage points) and (perhaps surprisingly) Guinea-Bissau (5.8 percentage points).[vii]

Revenue increases in Sudan, Mauritania and Guinea-Bissau were driven by resource-related revenue, oil in the case of Sudan and off-shore fishing licenses in the cases of

Mauritania and Guinea-Bissau. Non-resource tax revenues in all three countries have been less dynamic.

While Rwanda's progress was laudable, its average revenue as a ratio to GDP increased from a very small base of 6.4% of GDP during 1990-94 to only 12.4% during 2000-06. But this advance was obtained, in reality, between 1995-99 and 2000-06, with marked increases in both direct taxes and domestic indirect taxes powering the overall rise in revenue.

This leaves one country, Ghana, which arguably could be considered to have achieved notable success in raising revenue. With a GNI per capita of only US$ 500 in 2006, Ghana is certainly not close to becoming a lower middle income country. Hence, its performance cannot be explained by a relatively high income level.

We investigate Ghana's performance more closely in a case study in the Annex. Ghana is notable for having achieved across-the-board increases in its three main tax components. Direct taxes increased markedly due to advances in both corporate income taxes and taxes on personal income (including income from the self-employed).

Increases in domestic indirect taxes resulted from credible performances by a VAT, excise taxes and a tax on petroleum products. Ghana was also able to maintain above-average levels of trade taxes, even taxing its main export crop, cocoa.

Unlike Ghana, very few low-income countries in sub-Saharan Africa have managed to increase revenue beyond 20% of GDP. In fact, four countries that had earlier achieved such levels or gotten close—namely, Cote d'Ivoire, the Gambia, Kenya and Zambia—were the four countries in our sample that lost revenue between 1990-94 and 2000-06.

Many low-income countries in sub-Saharan Africa continue to have very low revenue levels. In fact, 13 out of the 29 countries in our sample still had average total revenues below 15% of GDP during 2000-06. Thus, supporting revenue progress in these countries should be a high priority. Such low levels of revenue severely handicap basic state capacity.

South and Southeast Asia

The performance of individual countries has been even more dismal in South/Southeast Asia than in sub-Saharan Africa. During 2000-06 only one country, namely, Vietnam, had average central-government revenue above 15% of GDP.

Moreover, when one examines progress either between 1995-99 and 2000-06 or between 1990-94 and 2000-06 (which can be done for just four countries), only Vietnam could be regarded as having made significant progress. Between 1990-94 and 2000-06, its total revenue as a ratio to GDP rose from 18.9% to 23.9%, or by 5 percentage points. Total revenue (as well as tax revenue) basically stagnated in the other six countries.

Thus, we examine more closely Vietnam's experience in the Annex in order to determine why its performance was so unusual. Vietnam's income per capita is not high. For example, its GNI per capita in 2006 was US$ 690.

Direct taxes constituted Vietnam's most important tax component. But increases in this component were due mostly to taxing corporate income, primarily from the oil sector, but also secondarily from foreign-owned firms in general. Increases in royalty fees from the oil sector also augmented non-tax revenue.

However, Vietnam also succeeded in achieving relatively high levels of both domestic indirect taxes and trade taxes, at least by regional standards. So, the diversification of sources of taxation is part of the Vietnam success story.

Central Asia

Compared to revenue performance in South/Southeast Asia, performance in our sample of four Central Asian low-income countries was clearly superior. As was the case for South/Southeast Asia, our analysis had to be confined mostly to the period between 1995-99 and 2000-06.

Mongolia, Tajikistan and Kyrgyzstan all made significant progress over this period. Mongolia's total revenue as a ratio to GDP increased by 7.7 percentage points while Tajikistan's increased by 4.2 percentage points and Kyrgyzstan's by 3.7. All of these are significant increases over such a short period of time (higher than our 3 percentage point yardstick).

Uzbekistan's revenue ratio dropped by 1.8 percentage points but its average level of revenue remained at over 31% of GDP during 2000-06. This rivalled Mongolia's level of 33.6%.

Though a relatively poor country, Tajikistan made credible progress, reaching 16.8% of GDP during 2000-06 from a relatively low revenue base of 12.6% during 1995-99. It relied mostly on domestic indirect taxes (e.g., excise taxes and the VAT) and secondarily on direct taxes and non-tax revenue. Kyrgyzstan's progress can be attributed to more even progress of direct taxes, non-tax revenue and domestic indirect taxes (in their order of importance). Its total revenue averaged 19.2% of GDP during 2000-06, up from 15.5% during 1995-99.

For more in-depth study, we choose Mongolia both because of its high level of revenue and its significant increase in revenue. The analysis of its experience is included in the Annex. Mongolia made remarkable progress partly because of boosting resource-related revenues. Rising copper and gold prices translated, for example, into both higher corporate tax revenues and higher royalty fees.

But Mongolia is also noteworthy for having attained increases across all of its major revenue components, including trade taxes. Hence, in some respects similar to Ghana and Vietnam, Mongolia was successful in diversifying its sources of revenue.

V. **Concluding Remarks**

The general picture that emerges from our analysis of regional trends and some key individual country cases is not encouraging. Many of the low-income countries in sub-Saharan Africa, South/Southeast Asia and Central Asia that have mobilized substantial revenue (either between 1990-94 and 2000-06 or between 1995-99 and

2000-06) have done so on the basis of taxation of natural resources, such as oil, copper, gold and fishing resources.

Both Vietnam and Mongolia are in this category. But there are others, such as Mauritania and Sudan, which we have not highlighted. Success in taxation of resources often shows up in advances in direct taxes (such as corporate income taxes) and non-tax revenues (such as royalty fees).

Our data do not allow us to disaggregate resource revenues from non-resource revenues. So, these conclusions should be considered only as working hypotheses for future research. However, recent IMF research that has apparently been able to differentiate resource revenue from non-resource revenues has shown that since the mid-1990s the general rise in tax revenue in sub-Saharan Africa is explained mostly by increases in revenue from natural resources (Keen and Mansour 2009). Tellingly, there has been virtually no upward trend in non-resource tax revenue.

These findings underscore the importance of ensuring that low-income countries have the capacity to effectively negotiate with multinational corporations in order to secure an equitable public share in any resource rents. This is especially important because many such resources are non-renewable. For example, Mauritania has already had to confront the danger of rapid depletion of its offshore fishing resources by foreign fishing boats from the EU and elsewhere.

For those low-income countries that lack valuable natural resources, the only other viable strategy that emerges from our analysis is to promote the diversification of the sources of revenue. Ghana appears to have followed this strategy with a notable degree of success, achieving important across-the-board increases in domestic indirect taxes, direct taxes and trade taxes.

The fall-back alternative appears to be a strategy that at least maximizes increases in both direct and indirect domestic taxes. For instance, countries in Central Asia such as Mongolia, Tajikistan and Kyrgyzstan succeeded in achieving significant increases in both components between 1995-99 and 2000-06. In South/Southeast Asia, Vietnam was also able to do the same; and in sub-Saharan Africa, Rwanda achieved some limited success.

Unfortunately, conventional advice on tax policies attaches the most importance to domestic indirect taxation, and to value added taxation in particular. But this component represents only one of three potential engines of revenue mobilization (leaving aside non-tax revenue, which is often associated mainly with resource revenue).

Moreover, taxes on domestic goods and services can often be regressive in their impact. Placing greater emphasis on them is part of the conventional wisdom that has become increasingly willing to sacrifice equity in favour of the objective of supposedly enhancing tax efficiency (Norregaard and Khan 2007).

Relying mostly on dynamism in domestic indirect taxation, as has been the standard approach, poses severe challenges to revenue mobilization. Our regional findings suggest that while the increase in domestic indirect taxes has been credible in Central Asia, increases in South/Southeast Asia and sub-Saharan Africa have been modest.

Importantly, progress in domestic indirect taxes has been too slow to generate a decisive step-increase in revenue mobilization in most low-income countries. Even in Central Asia, general revenue performance depended critically on both direct and indirect domestic taxes. This lesson was flagged, in fact, by the IMF Fiscal Affairs Department some time ago (IMF 2005a).

Trade liberalization has taken its toll on revenue in all three regions that we have examined. Trade taxes have decreased in South/Southeast Asia, stagnated in Central Asia, and increased only negligibly over a longer period of time in sub-Saharan Africa. So, except in the rare cases in which both direct and indirect domestic taxes have risen substantially, the stagnation (or loss) of revenue from trade taxes has doomed most low-income countries to a low-revenue trap.

In some regions, such as sub-Saharan Africa, where trade taxes still constitute a significant proportion of total tax revenue, the losses in the future from further trade liberalization are likely to be particularly damaging. At the same time, further gains to be reaped from the VAT are not likely to be substantial (Keen and Mansour 2009). These factors add urgency to accelerating gains in direct taxes.

In the three regions that we have examined, the record of direct taxes has been mixed. In sub-Saharan Africa, direct taxes increased only modestly (that is, by 0.9 percentage point) between 1990-94 and 2000-06. In South/Southeast Asia, low-income countries did better, achieving a similar increase of 0.9 percentage point over a shorter period.

In sharp contrast, direct taxes rose significantly, i.e., by 1.7 percentage points, in Central Asia between 1995-99 and 2000-06. Such progress is likely attributable, in significant part, to the levels of formalisation of these economies attained during the Soviet period.

There are major structural reasons why many other low-income countries can have difficulty in boosting such taxes. A large informal sector poses constraints, as does a sizeable agricultural sector. However, neither constraint should be used as an excuse to abandon ambitious efforts to boost revenue. Practical means have to be found to overcome these constraints.

More important, we believe, is that conventional tax advice has contributed to difficulties by focusing advocacy on the reduction of top rates on corporate income and personal income. The predicted effect was the enlargements of the tax base. But there is little evidence to support the claim that base widening has occurred as a result of rate cuts. Moreover, the progressivity of national tax structures has been weakened in the process.

There appears to be some tentative evidence that corporate taxes might have increased in the 2000s, whereas they had clearly decreased in the 1990s. But the base for corporate taxes appears to have stagnated, if not declined—partly due to the widespread use of tax-reducing incentives to attract FDI. Hence, a likelier explanation for increased revenue appears to be the fattening of corporate profits, particularly those related to resource-related incomes. (Keen and Mansour 2009; Norregaard and Khan 2007).

On practical grounds, the reduction of corporate income tax rates has been particularly problematic because such taxes—along with trade taxes—have been an important source of revenue for low-income countries.

Both corporate incomes taxes and trade taxes also tend to be easier to administer than many other forms of taxation. Hence, the weakening of these two tax handles has placed unrealistically heavy burdens on the rest of the tax structure of low-income countries to generate any substantial increases in revenue.

In summary, the stagnation or loss of revenue from trade taxes has acted as a dead weight on efforts to substantially boost domestic revenue in low-income countries. As a consequence, our MDG-related goal of increasing total revenue by 5 percentage points of GDP between 1990-94 and 2000-06 would have had to rely on major compensating achievements by both of the other two major tax components, that is, direct taxes or domestic indirect taxes.

But, except in our small sample of Central Asian economies, neither of these components achieved the rapid increases that would have been required to add 5 percentage points of revenue to GDP. Progress on direct taxes has been slow, especially in sub-Saharan Africa, principally because of the lack of progress on corporate income taxes (Norregaard and Khan 2007).

Moreover, in many of the individual cases where the MDG benchmark has been reached, resource-related revenues have played a prominent role. These findings suggest that we need to substantially rethink the design of tax policies for low-income countries. Holding the line on further cuts in tariffs would make sense in low-income countries that are unable to obtain major medium-term advances in both direct and indirect domestic taxes.

In addition, we need to find ways to enlarge the base for direct taxes without necessarily sacrificing vertical equity (e.g., reducing rates for recipients of higher incomes).

Lowering the minimum threshold for the payment of personal income taxes could help in many countries, since the base of taxpayers is usually small. Instituting some forms of taxation of wealth could also contribute to raising revenue. Introducing land or real estate taxes are examples (though these revenues often accrue to local governments).

Finally, we need to critically examine why domestic indirect taxes, such as the much vaunted VAT, have had generally lacklustre success in low-income countries in sub-Saharan Africa and South/Southeast Asia. For example, how could improvements be made in the VAT's coverage of domestic goods and services, especially those provided by informal-sector enterprises?

While VAT rates could, in theory, substitute for import tariffs, the VAT's coverage of domestic goods and services is effectively limited to what is marketed in the formal sector. Hence, the size of any net gains from substituting the VAT for import tariffs was severely constrained even from the starting gate.

Hence, we believe that the reigning consensus on tax policies has contributed to the general stagnation of revenue in low-income countries since the early 1990s. Much of the tax advice has been ill-suited to the economic conditions in such countries. Unrealistic expectations have been placed on the revenue potential of domestic indirect taxes, premature reductions have been made in trade taxes, and needless weakening has been approved for direct taxes. Consequently, there appears to be a pressing need for a fundamental re-evaluation and re-design of prevailing policies.

VI. Figures

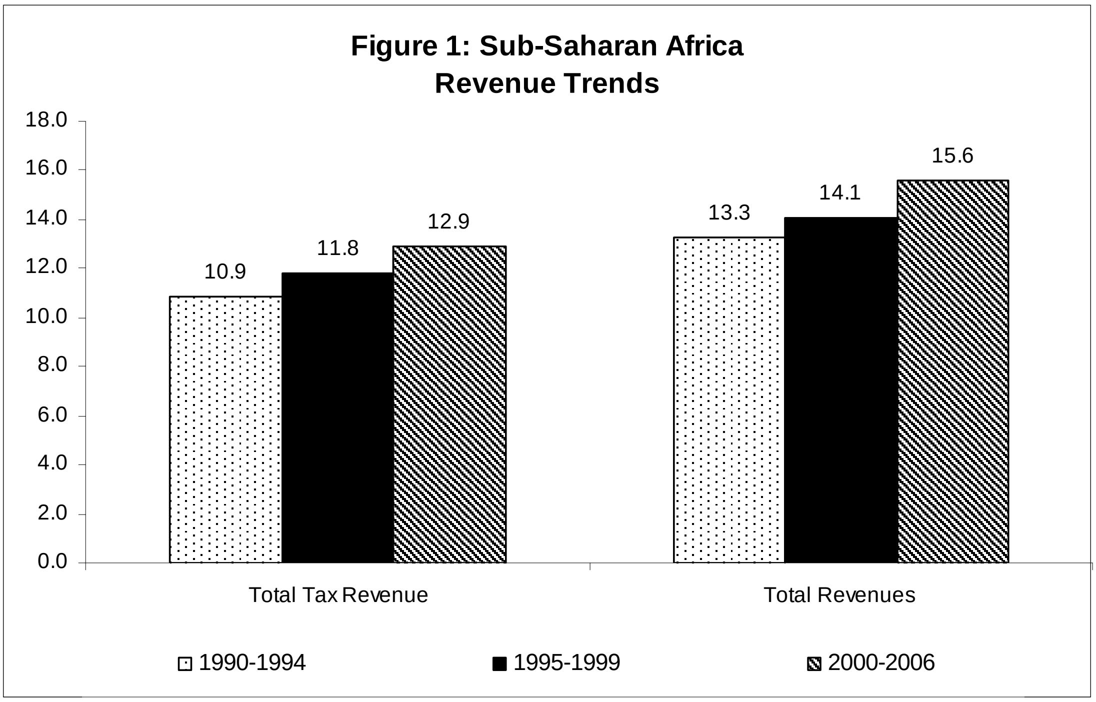
Figure 1: Sub-Saharan Africa
Revenue Trends
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
10.9
11.8
12.9
13.3
14.1
15.6
Total Tax Revenue
Total Revenues
1990-1994
1995-1999
2000-2006

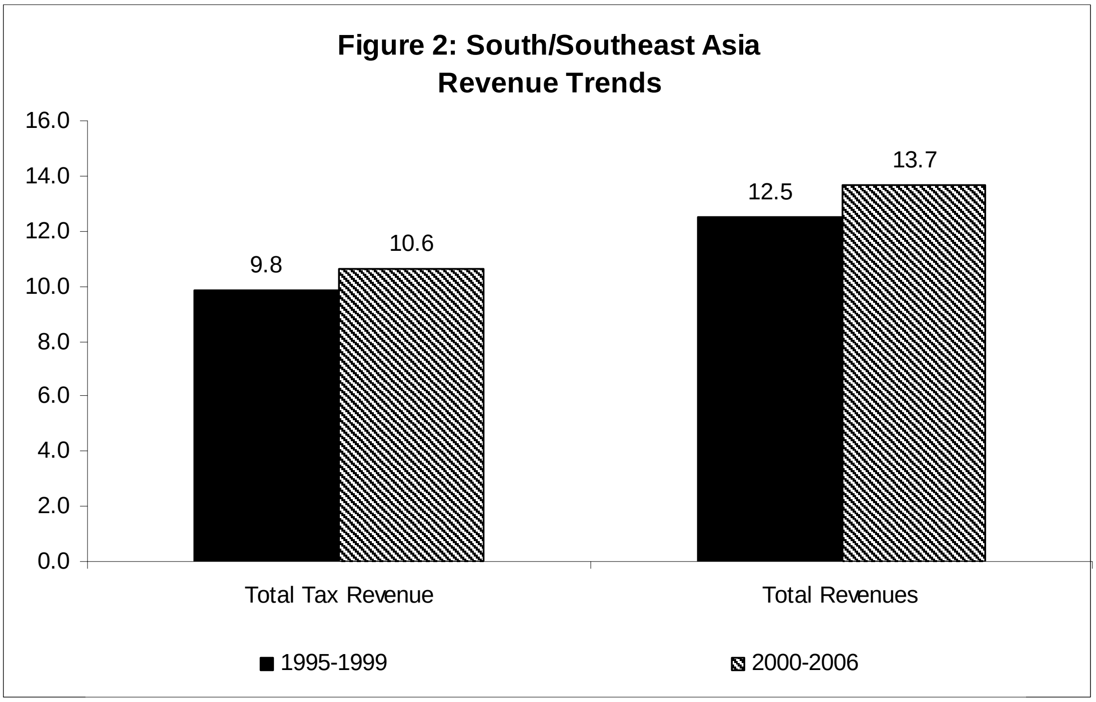
Figure 2: South/Southeast Asia
Revenue Trends
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
9.8
10.6
12.5
13.7
Total Tax Revenue
Total Revenues
1995-1999
2000-2006

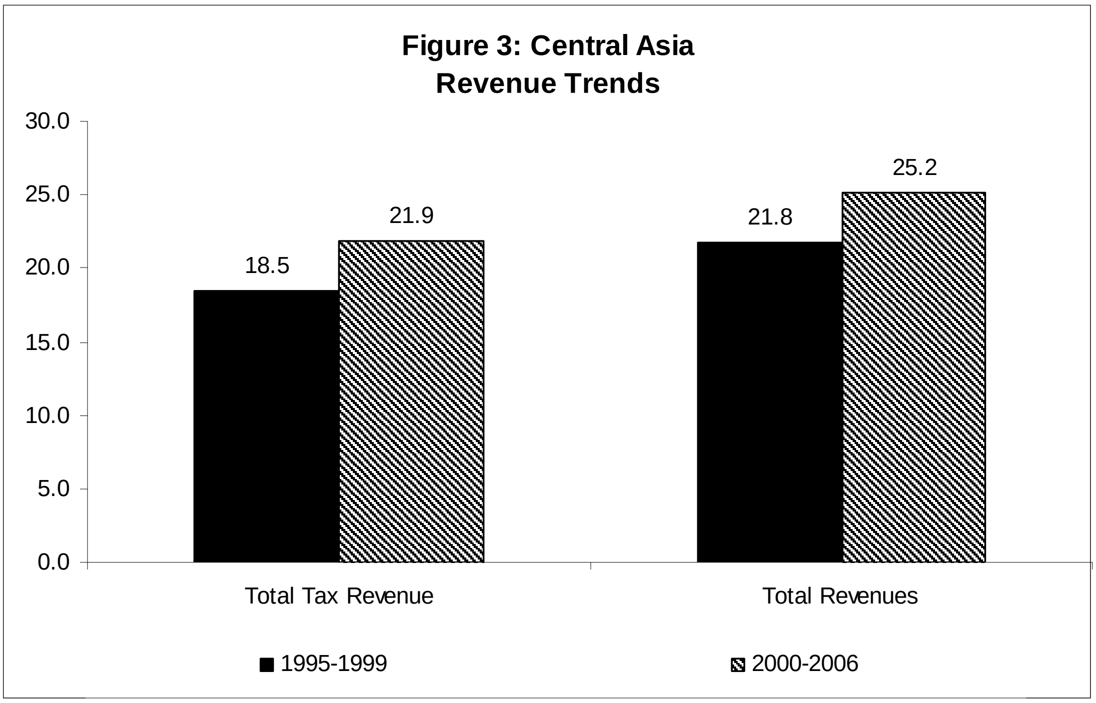
Figure 3: Central Asia
Revenue Trends
30.0
25.0
20.0
15.0
10.0
5.0
0.0
18.5
21.9
21.8
25.2
Total Tax Revenue
Total Revenues
1995-1999
2000-2006

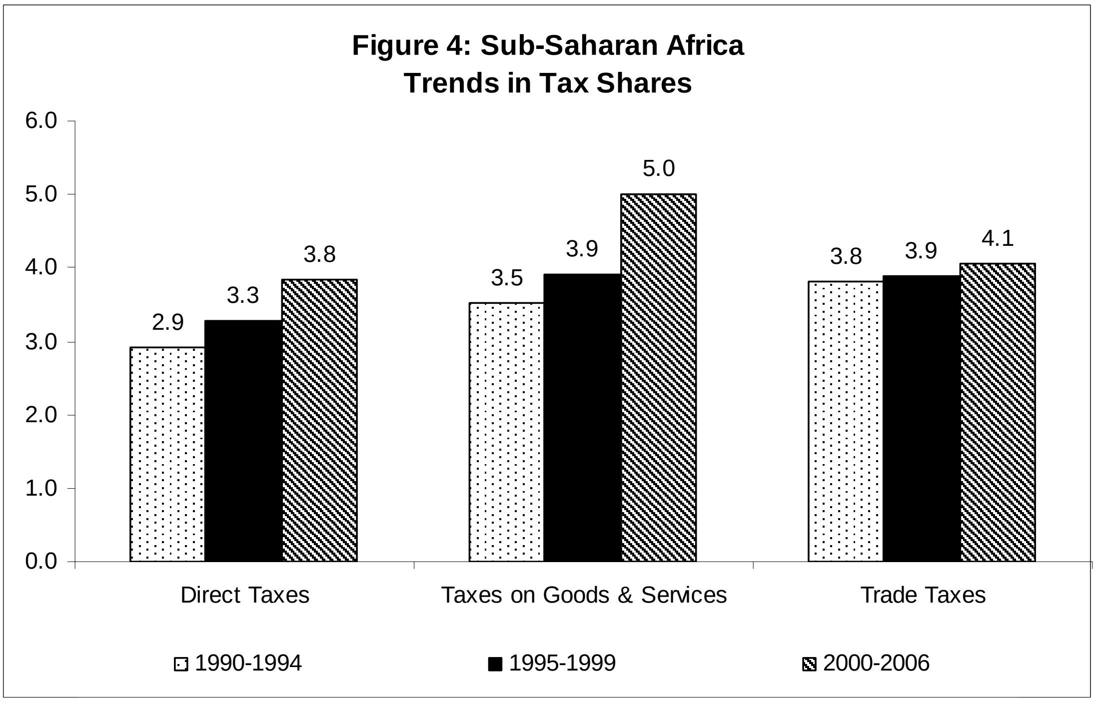
Figure 4: Sub-Saharan Africa
Trends in Tax Shares
6.0
5.0
4.0
3.0
2.0
1.0
0.0
2.9
3.3
3.8
3.5
3.9
5.0
3.8
3.9
4.1
Direct Taxes
Taxes on Goods & Services
Trade Taxes
1990-1994
1995-1999
2000-2006

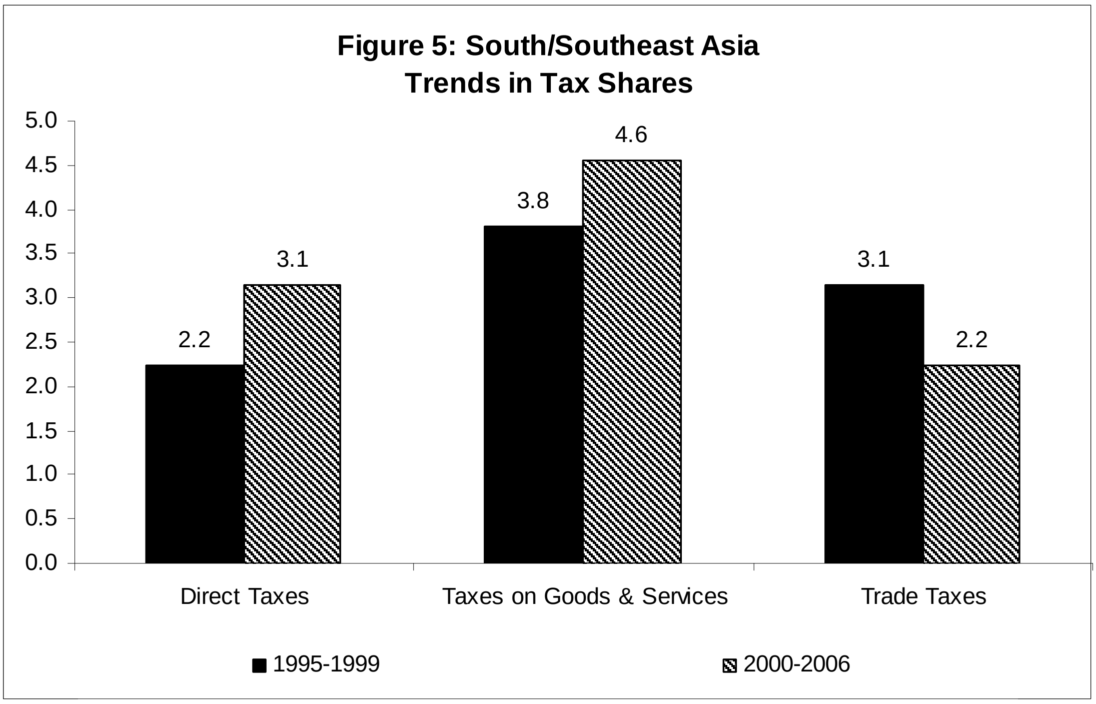
Figure 5: South/Southeast Asia
Trends in Tax Shares
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
2.2
3.1
3.8
4.6
3.1
2.2
Direct Taxes
Taxes on Goods & Services
Trade Taxes
1995-1999
2000-2006

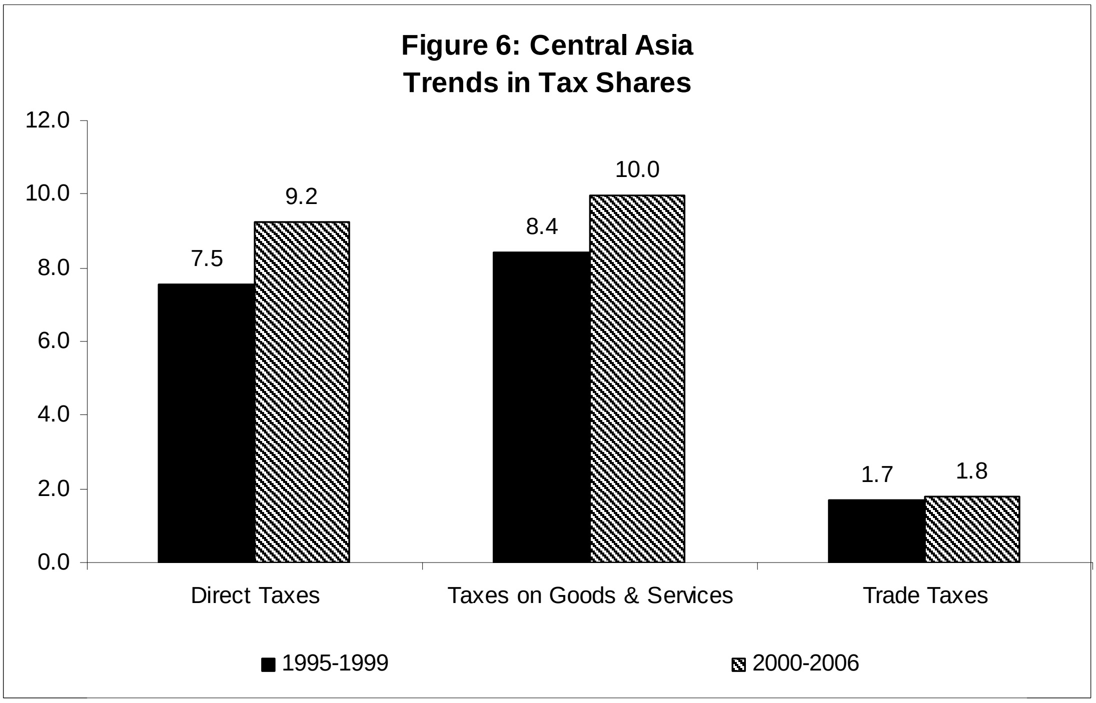
Figure 6: Central Asia
Trends in Tax Shares
12.0
10.0
8.0
6.0
4.0
2.0
0.0
7.5
9.2
8.4
10.0
1.7
1.8
Direct Taxes
Taxes on Goods & Services
Trade Taxes
1995-1999
2000-2006

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VIII. Annex

Three Case Studies

In this Annex, we highlight the performance of the three countries—Ghana in sub-Saharan Africa, Vietnam in South/Southeast Asia and Mongolia in Central Asia—which have done relatively well in mobilizing domestic revenue. By examining their experiences more closely, we hope to draw out some relevant general lessons on how to achieve success in mobilizing domestic revenue in low-income countries.

Vietnam

Though a low-income country, Vietnam has had relative success in raising domestic revenue. For our sample of seven low-income countries in South/Southeast Asia, the averages for tax revenue and total revenue for 2000-06 were 10.6% of GDP and 13.6% of GDP, respectively. But these same averages for Vietnam were notably higher, i.e., 18.2% and 23.9%, respectively.

During 1990-94, Vietnam had averaged tax revenues that were 13.1% of GDP and total revenues that were 18.9%. So, on both measures, the increases between 1990-94 and 2000-06 were about five percentage points of GDP. This is an especially noteworthy achievement since Vietnam had started at above-average levels of revenue. How can this achievement be explained?

Vietnam had started to establish a tax system appropriate to a more market-based economy in the late 1980s. Previously, three quarters of government revenue had been drawn from the surpluses of State-Owned Enterprises. But by 1994, about four-fifths of all domestic revenue came from tax collection. Tariffs had replaced quantitative trade restrictions; corporate taxes had begun to increase on non-state enterprises and joint ventures; and revenues from SOEs had increased substantially, partially from crude oil production.

Domestic indirect taxes initially took the form of a turnover tax and a special consumption (or excise) tax on undesirable goods, such as cigarettes, alcohol and firecrackers. Direct taxes were heavily weighted towards corporate income taxes. The personal income tax was—and has remained—a very small proportion of total tax revenue, focused mostly on the wage income of well-paid workers in the modern corporate sector (See IMF 1998).

During 2000-06, when Vietnam's average tax revenue was about 18% of GDP and its average total revenue was almost 24% of GDP, its tax structure exhibited some unusual features. The first notable feature is that its direct taxes were the most important component, representing 8.2% of GDP. By comparison, domestic indirect taxes amounted to 6.3% of GDP. Trade taxes, which accounted for 3.3% of GDP, were above-average for South/Southeast Asia, but not unusually so. The second notable feature of Vietnam's tax structure is the high percentage of non-tax revenue, which was 5.7% of GDP.

Unlike some other low-income countries, Vietnam had succeeded in reaping significant rewards from an export commodity—in this case, the production and export of crude oil. Revenue from crude oil has boosted both corporate income taxes and charges and fees, which are part of non-tax revenue. As a result, oil revenues accounted for about 30% of all revenue in the 2000s (Lee 2006).

Also, between the late 1990s and early 2000s, Vietnam succeeded in roughly doubling corporate income taxes from foreign-invested enterprises. During this period, the share of revenue from direct taxes almost doubled, namely, to about 33%, while the shares derived from domestic indirect taxes and trade taxes both declined significantly.

Vietnam could continue strengthening its receipts from direct taxes if it focused on increasing corporate income taxes from the private sector, both domestic and foreign, and lowered the threshold for the personal income tax in order to expand its small base of taxpayers.

Mongolia

Among our small sample of four transition economies in Central (and Eastern) Asia, Mongolia has made the most progress in mobilizing domestic revenue. Its level of revenue exceeds that of the other three countries.

Between 1995-99 and 2000-06, Mongolia's total revenue as a ratio to GDP rose from 25.9% (which was already a high level) to 33.6%, or by 7.7 percentage points. Mongolia's tax revenue increased at a similar rate, that is, from 19.4% of GDP to 26.6% between 1995-99 and 2000-06.

Direct taxes represent a significant share of Mongolia's total tax revenue. During 2000-06, they had risen to an average of 10.7% of GDP, from 8.6% of GDP in the late 1990s. Corporate tax revenues increased because of rising levels of copper and gold prices and increased mining activities (see IMF 2005b).

Non-tax revenues are also relatively high in Mongolia because of the importance of mining activities. During 2000-06, for instance, non-tax revenue was 6.9% of GDP, up from 6.5% during 1995-99. So, Mongolia's high level of revenue has been due, in no small measure, to resource-related revenues.

However, the overall increase of direct taxes in Mongolia was abated, especially in the non-mining sectors of the economy, because of the reduction in the corporate income tax rate from 40% to 30% (though the resultant rate is still higher than in most other transition economies).

Revenues from the personal income tax (PIT) continued to increase in Mongolia between the late 1990s and 2000s, with most of this revenue being derived from wages and salaries. Mongolia achieved such increases because it had set a relatively low PIT threshold compared to that established in many other developing and emerging economies.[viii]

What is worth noting is that all of the major components of Mongolia's tax revenue, including 'other taxes', rose as a percentage of GDP from the late 1990s to the 2000s. The largest component, domestic indirect taxes, rose from an average of 8.3% of GDP to 11.1%.

This rise can be attributed to the increase of the VAT rate from 10% to 15% but also from increased VAT revenues from a rising level of imports. Between the late 1990s and early 2000s, Mongolia's imports rose dramatically, from about 40% of GDP to 70%. The country's trade taxes also increased as a result, though modestly, to 2% of GDP, compared to 0.8% during 1995-99. Mongolia's trade taxes are low because it imposes only a 5% tariff on imports.

Excise taxes also represent a significant share of tax revenue in Mongolia. During the early 2000s, they had increased to over 4% of GDP. The main excise taxes are levied on consumption of oil, vodka and beer.

So, an important general point is that although Mongolia's success has been heavily dependent on resource-related revenues, it has also benefited from diversifying its sources of revenues across a number of different components.

Ghana

Ghana is one of the most successful low-income countries in sub-Saharan Africa in mobilizing domestic revenue. During 1990-94, Ghana's ratio of total revenue to GDP averaged 14.2%. But by 2000-06, this average had risen to 21.6%, that is, to a level that was clearly above-average for a country with low per capita income.

The performance of Ghana's tax revenue paralleled that of its total revenue. During 1990-94, its tax revenue as a ratio to GDP was only 12.8% but by 2000-06 this average had increased to 19.9%. This 7.1 percentage-point rise in the average level of tax revenue is remarkable. In low-income sub-Saharan Africa, only resource-rich Sudan and Mauritania performed better.

How did Ghana succeed in raising government revenue? The results noted above show that non-tax revenue did not play an important role. Ghana's success appears to have been attributable to across-the-board increases in the three major components of tax revenue, namely, direct taxes, domestic indirect taxes and trade taxes.

Direct taxes (such as on personal and corporate income) rose substantially. While during 1990-94, the average level of direct taxes was only 2.7% of GDP, this component rose to an average of 6.3% of GDP during 2000-06. During the 2000s, Ghana was able to push corporate tax revenue up to about 3% of GDP and revenue from wages and salaries up to about 2.4% (See IMF 2007).

Ghana was even able to secure tax revenue from the self-employed, which accounted for about 0.4% of GDP. Though most of the base for personal income taxes is still the public sector in Ghana, the government is making efforts to broaden the base to the private sector, and to the large informal private sector in particular.

Ghana's progress on domestic indirect taxes was also significant. During 1990-94 the average level of such taxes was 6.5% of GDP whereas during 2000-06 it had risen to 9.2%, and was still rising. Such increases were due partly to the rise in the VAT rate from 10% to 15%. But about 70% of VAT revenues still came from taxing imports. In addition, Ghana obtained 0.7-0.8% of GDP in revenue during the 2000s from taxing petroleum products and another 0.25% from other excise taxes.

Ghana has been noteworthy in trying to extend the coverage of taxation to the informal sector. For example, the government has sought to determine VAT obligations by checking the registration of the value of vehicles. Also, it has set a low flat rate of 3% on sales in order to provide greater motivation for the payment of indirect taxes.

Unlike in many other low-income countries, revenue from trade taxes increased significantly in Ghana between the early 1990s and the 2000s. During 1990-94, trade taxes accounted on average for 3.6% of GDP whereas by 2000-06 they had risen to account for 4.5%. During the 2000s, import duties continued to represent about 3.5% of GDP. Ghana's tariffs still ranged between 5% and 20%. But Ghana also continued to impose levies on some of its exports, mainly on cocoa. As result, export taxes continued to contribute about 1% of GDP in revenue.

Thus, Ghana's success in raising revenue appears to be tied to a strategy that has established a diversified base of taxation, which has relied on all three major tax components, that is, direct taxes (both corporate and personal), domestic indirect taxes (both VAT and non-VAT) and trade taxes (both on imports and exports). Ghana has relied much less than Vietnam or Mongolia on resource taxes although it expects to begin producing oil in 2011.

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[i] Hannah Bargawi, Research Officer of CDPR, also contributed research to help complete this Discussion Paper

[ii] At the time of writing, Katerina Kyrili was Acting Research Officer at CDPR.

[iii] Our sample of low-income countries in sub-Saharan Africa includes: Benin, Burkina Faso, Burundi, Central African Republic, Chad, Congo Democratic Republic, Cote d'Ivoire, Eritrea, Ethiopia, the Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Senegal, Sierra Leone, Sudan, Tanzania, Togo, Uganda and Zambia.

[iv] Our sample for 1990-94 is, however, only 24 countries because of lack of a full data set.

[v] For the purposes of comparability, our data include central government revenue for India although its consolidated general government revenue is higher because of the inclusion of state-level revenues. However, this leads to little difference in our overall results.

[vi] Social security contributions, which we include here under direct taxes, are significant in some of the Central Asian countries

[vii] Lowering the yardstick to an increase of 4 percentage points of GDP would only add Benin and Chad to our list. By 2000-06, Chad's revenue only averaged 9.6% of GDP, however. While Benin's revenue level had risen from 12.3% during 1990-94 to reach 16.7% during 2000-06, 2.6 percentage points of this absolute increase were attributable to boosting trade revenue to almost 8% of GDP.

[viii] Our analysis does not include social security contributions, which are also significant.