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Training Notes

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Debapriya Bhattacharya and **Mashfique Ibne Akbar** are distinguished fellow and research associate, respectively, at CPD. A summary of a paper is included here.

Hazel Granger – a summary of her PEAKS topic guide is included here

Dan Haglund – Oxford Policy Management; a summary of his PEAKS help desk response is included here.

International Monetary Fund produced a range of papers on tax and we include 2 summaries here.

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Dirk Willem te Velde is head of programme of the International Economic Development Group at the Overseas Development Institute. He is also director (economics) of core services PEAKS. He compiled this set of notes.

Abbreviations and acronyms

GDP	Gross domestic product
EI	Extractive industry
EPZ	Export-processing zones
FDI	Foreign direct investment
IMF	International Monetary Fund
LDC	Least-developed country
LIC	Low-income-country
OECD	Organisation for Economic Cooperation and Development
PIF	Pacific Island Forum
R&D	Research and development
SSA	Sub-Saharan Africa
UMIC	Upper-middle-income country
VAT	Value-added tax
WTO	World Trade Organisation

Glossary

Buoyancy of tax	The ability of a tax or tax system to increase at an equal or faster rate than its base (usually gross domestic product – GDP)
CITPROD	Indicates how well corporate income tax (CIT) does in terms of producing revenue, given the prevailing tax rate. It is calculated by dividing total corporate income tax revenues by GDP and then dividing this by the general corporate income tax rate (AfDB, 2011).
Compliance costs	The expenditure of time or money to conform to government requirements. For taxes, this could include registration, filing returns, keeping records, etc.
Consumption tax, e.g. VAT	Tax on goods and services transactions. From the perspective of the buyer, it is a tax on the purchase price. From that of the seller, it is a tax only on the value added to a product, material, or service by this stage of its manufacture or distribution. Manufacturers remit to the government the difference between these two amounts and retain the rest for themselves to offset the taxes they had previously paid on the inputs.
Corporate tax	Tax on the income or capital of corporate entities. Generally, this tax is imposed on net profits or net taxable income.
Double-tax avoidance agreement	A legal agreement that may be negotiated and ratified by two or more states to prevent double taxation (and the risk of tax evasion) by agreeing procedures and criteria allocating taxing rights, e.g. to the state in which income was derived or at headquarter level
Excise duty	A domestic tax on the sale or production for sale of specific goods. Excises can be applied to both imported and domestic goods, but are distinguished from customs duties, which are taxes on importation.
Neutral tax	Tax that does not create incentives that cause individuals or firms to shift their economic choices, such as to choose among different goods, inputs, locations, etc.
Personal income tax	A charge imposed by governments on the annual gains of a person derived through work, business pursuits, investments, property dealings and other sources determined in accordance with the tax law; may be subject to certain deductions or allowances
PITPROD	Attempts to provide an indication of how well the personal income tax (PIT) in a country does in terms of producing revenue. It is calculated by taking the actual revenue collected as a percentage of GDP divided by the weighted average PIT rate (AfDB, 2011).
Presumptive tax	A form of assessing tax liability using indirect methods such as estimating (or presuming) the appropriate income on which tax should be levied. Presumptive methods of taxation are thought to be effective in reducing tax avoidance, particularly among informal businesses, where there is a lack of transparency on income.
Profit shifting	The allocation of income and expenses between related corporations or branches of the same legal entity (e.g. by using transfer pricing) in order to reduce the overall tax liability of the group or corporation (moneycontrol.com)
Progressive tax	A tax that takes a larger percentage from the income of high-income earners than it does from low-income individuals (investopedia.com, 2013)
Ramsey problem	The Ramsey problem, or Ramsey-Boiteux pricing, is a policy rule concerning what price a

monopolist should set in order to maximise social welfare, subject to a constraint on profit. A closely related problem arises in relation to the optimal taxation of commodities.

Regressive tax	A tax that takes a larger percentage from low-income people than from high-income people. A regressive tax is generally a tax that is applied uniformly. This means that it hits lower-income individuals harder, depending on their relative level of consumption (investopedia.com, 2013).
Revenue	Income that a government receives. Government revenue includes all amounts of money (i.e. taxes and/or fees) received from sources outside the government entity.
Tax	A financial charge or other levy imposed on a taxpayer (an individual or legal entity) by a state, or the functional equivalent of a state, such that failure to pay is punishable by law.
Tax allowance	E.g. personal allowance: the level above which (income) tax is levied on an individual's annual income
Tax assessment	Most taxes are based on the principle that the receiver of taxes (revenue authority) has the right to assess the tax liability and demand the assessed amount from the taxpayer (businessdictionary.com, 2013).
Tax avoidance	The legal use of the tax regime to one's own advantage in order to reduce the amount of tax that is payable by means that are within the law.
Tax base	The measure upon which the assessment or determination of tax liability is based. For example, taxable income is the tax base for income tax and assessed value is the tax base for property taxes (businessdictionary.com, 2013).
Tax effort	Actual tax revenue as a percentage of estimated potential tax revenue (AfDB, 2011)
Tax evasion	Efforts by individuals, corporations, trusts and other entities to evade taxes by illegal means. Tax evasion usually entails taxpayers deliberately misrepresenting or concealing the true state of their affairs to the tax authorities in order to reduce their tax liability.
Tax expenditure	A tax expenditure programme is government spending through the tax code by allowing exemptions, deductions, or credits to select groups or specific activities.
Tax gap	The difference between estimated potential tax revenue and actual tax revenue (AfDB, 2011)
Tax haven	A state, country, or territory where certain taxes are levied at a low rate or not at all. Individuals and/or corporate entities can find it attractive to establish shell subsidiaries or move themselves to the tax haven to benefit. Other definitions include countries that lack effective exchange of tax information with foreign tax authorities, or have an extensive network of tax treaties, or no requirement for a substantive local presence.
Tax holiday	A temporary reduction or elimination of a tax (a tax expenditure)
Tax incidence	The analysis of the effect of a particular tax on the distribution of economic welfare. Tax incidence is said to 'fall' on the group that ultimately bears the burden of the tax.
Tax refund	A tax refund or tax rebate is a refund on taxes when the tax liability is less than the taxes paid. Taxpayers can often get a tax refund on their income tax if the tax they owe is less than the sum of the total amount of the withholding taxes and estimated taxes that they paid, plus the refundable tax credits that they claim. (Tax refunds are money given back at the end of the financial year.)
Tax shelter	Any method of reducing taxable income resulting in a reduction of the payments to tax-collecting entities, including state and federal governments
Tax treaty	A formal agreement between countries on tax treatment (e.g. double-tax avoidance agreements)
Tax wedge	The deviation from equilibrium price/quantity as a result of a taxation, which results in consumers paying more, and suppliers receiving less
Taxable income	The base on which an income tax system imposes tax. Generally it includes some or all items of income and is reduced by expenses and other deductions.
VATCGR	This is a measure of how well the value-added tax (VAT) produces revenue for the government. It is computed by dividing VAT revenues by total private consumption in the economy and then dividing this by the VAT rate (AfDB, 2011).
Withholding tax	A government requirement for the payer of an item of income to withhold or deduct tax from the payment and pay that tax to the government. Withholding tax usually applies to employment income, but also to interest or dividend payments.

Source: AfDB (African Development Bank), 'Domestic resource mobilisation for poverty reduction in East Africa: lessons for tax policy and administration' (2011) and Wikipedia (2013). Compiled by Hazel Granger in the PEAKS topic guide on taxation.

1 Introduction – *Dirk Willem te Velde*

This set of notes accompanies a course on tax and development. It combines a review of existing studies, a few new contributions and summaries of a number of major studies on tax. The background material can be used together with other training materials and PowerPoint presentations, which are provided separately.

This note includes a table of content of the PEAKS topic guide and from this and other publications we extract some typical tax findings and challenges in developing countries. There are summaries of International Monetary Fund (IMF) studies on domestic resource mobilisation and taxation of extractive industries, and a summary of a PEAKS helpdesk response on the Zambian mining sector. Moreover, there are introductory notes on tax performance and incidence in developing countries, trade policy reform and its impact on tax revenues, fiscal policy and inequality, tax, industrial policy and investment, and G8/G20 discussions on tax.

The training course will focus particularly on the economics of taxation with some discussions on governance challenges (but the latter are discussed elsewhere in much more detail, including research by the International Centre for Tax and Development).

2 PEAKS tax topic guide – table of contents of topic guide by Hazel Granger

PEAKS commissioned a study by Hazel Granger entitled *Economics topic guide: taxation and revenue*. The purpose of this study is to provide an overview of taxation and other revenue and their role in the economy. In particular, it summarises relevant economic concepts, analytical tools and other issues in the area of taxation in developing countries. The study explores what we know about tax systems and revenue performance in developing countries and investigates the challenges faced by developing countries in reforming their tax systems.

The table of contents of the PEAKS study is as follows:

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The full study can be downloaded from [here](#)

3 Typical tax findings and challenges in developing countries – *Dirk Willem te Velde*

This note includes a number of typical tax findings and challenges in developing countries. It first reports on ten tax findings and then discusses typical challenges.

Overall tax performance

1. The average fiscal revenue-to-GDP ratio (without grants) in sub-Saharan Africa (SSA) was around 20% of GDP in 2010 (IMF, 2012), but many low-income countries (LICs) have a tax-to-GDP ratio of less than 15. While varying across countries, more-developed countries have a higher revenue ratio.
2. Short-term changes in the revenue ratio are not easy to achieve, but possible (including in Africa) according to the IMF. About 16 SSA LICs out of 28 were able to raise revenue ratios by 5 percentage points of GDP or more in at least one three-year period in the last two decades (IMF, 2012). Resource-rich SSA countries have performed better in terms of tax collections compared to non-resource-rich countries, but revenues are more volatile from year to year (Keen and Mansour, 2010).
3. Overall long-term changes in revenue ratios in LICs have been modest in the past, but with some exceptions. Peru increased its tax ratio from 6% to 13% over the 1990s and to around 17% currently.
4. Fragile states are less able to expand tax revenue as a percentage of GDP and any gains are more difficult to sustain (IMF, 2012). After conflicts, as economies are rebuilt, there can be good progress in developing effective tax systems, e.g. Liberia (with taxes growing from 10.6% of GDP in 2003 to 21.3% in 2011) and Mozambique (10.5% of GDP in 1994 to 17.7% in 2011) (IMF, 2011).

Performance of different types of taxes

5. Corporate taxes and trade taxes account for a lower share of tax revenue as a ratio of GDP compared to income tax and taxes on goods and services. Since 1980 (as a ratio of GDP), VAT revenues have increased, personal income tax has remained static, corporate income taxes have increased and trade tax receipts have fallen.
6. Four out of five countries in SSA have a VAT, which typically raises about 25% of all tax revenues (Keen, 2012). Property and land taxes are relatively effective local taxes, but tend to be underutilised in developing countries. Property taxes represent around 6.7% of total revenues in Organisation for Economic Cooperation and Development (OECD) countries, compared to 2.4% in larger developing and transitional countries (Bird, 1999).
7. The corporation income tax raises about 17% of total tax in developing countries, compared to 10% (pre-crisis) in the OECD.
8. While personal income taxes form a significant proportion of tax revenues in high-income countries (around 9-11% of GDP), developing countries raise only around 1-3% of GDP from personal income tax (Peter, Buttrick and Duncan, 2010).
9. Trade liberalisation has led to a decline in revenues from trade (i.e. trade taxes as a share of total revenues and GDP) (Keen and Mansour, 2010).
10. Taxation of extractive industries is specific owing to large sunk costs and long investment periods, and variability and uncertainty in resource prices. A wide range of instruments are used in raising revenue from the extractive industries (production sharing, auctions, government participation, income tax, VAT import tariffs, withholding taxes, surface fees and others). Governments commonly retain one-third of the rent from mining. IMF simulations suggest higher government shares (40-60%) in mining and 65-85% in petroleum.

Challenges of informality, transfer pricing, tax administration and taxing mobile capital

Developing countries have an informal sector representing an average of around 40%, perhaps up to 60% in some countries (Schneider, Buehn and Montenegro, 2010). Informal sectors feature many small, informal traders that may not be efficiently brought into the tax net (the cost of collection is high and revenue potential limited).

Compliance costs are high in LICs. There are lengthy processes, frequent tax payments, bribes and corruption (IMF, 2011; Doing Business, 2012).

In many LICs the majority of revenue is collected from a narrow tax base, sometimes due to a limited range of taxable economic activities. There is therefore dependence on a few taxpayers, often multinationals, that can exacerbate the revenue challenge by pursuing 'aggressive tax planning' to minimise their tax liability. In some cases large companies can abuse a lack of capacity in revenue authorities, e.g. through transfer-pricing abuse (IMF, 2011).

Developing and developed countries face huge challenges in taxing multinationals and international citizens. Estimates of tax revenue losses from evasion and avoidance in developing countries are limited by a lack of data and methodological shortcomings, but some estimates are significant (see Torvik, 2009, sec. 3).

Administrations are often under-resourced, resources are not effectively targeted at areas of greatest impact and mid-level management is weak. Domestic and customs coordination is weak, which is especially important for VAT. Weak administration, poor governance and corruption tend to be associated with low revenue collections (IMF, 2011).

Countries use incentives to attract investment, but may be unnecessarily giving up revenue. Evidence suggests that investors are influenced more by economic fundamentals such as market size, infrastructure and skills, and only marginally by tax incentives (IFC investor surveys).

G8/G20 discussions try to address tax evasion, tax avoidance, and the debate on base erosion and profit shifting. However, there are major issues in securing benefits for developing countries.

Aid, technical assistance and tax

Evidence on the effect of aid on tax revenues is inconclusive. Tax revenue is a more stable and sustainable resource flow than aid. While a disincentive effect of aid on revenue may be expected (and was supported by some early studies), recent evidence does not support this conclusion and in some cases points towards higher tax revenue following support for revenue mobilisation.

Technical assistance provided to tax programmes amounted in 2009 to less than 0.1% of total aid (OECD-DAC, 2012).

With outside support, transfer-pricing adjustments made as a result of audits of multinational enterprises have increased revenues in Colombia from \$3.3 million in 2011 to \$5.83 million in 2012 (a 76% increase).

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4 Revenue mobilisation in developing countries – executive summary of IMF study (2011)¹

The IMF has long played a lead role in supporting developing countries' efforts to improve their revenue mobilisation. This paper draws on that experience to review issues and good practice, and to assess prospects in this key area.²

The need for additional revenue is substantial in many developing countries, but improving revenue mobilisation has importance beyond that. Requirements for relieving poverty and improving infrastructure are substantial: achieving the Millennium Development Goals, for instance, may require LICs to raise their tax-to-GDP ratios by around 4 percentage points. But the quality of measures also matters: increasing revenue by further taxing readily compliant taxpayers can worsen distortions and perceived inequities. Conversely, reducing reliance on trade taxes can bring real structural gains that outweigh short-term revenue difficulties. More fundamentally still, the centrality of taxation in the exercise of state power means that more efficient, fairer and less corrupt tax systems can spearhead improvement in wider governance relations.

Experience shows that progress can be made – given strong political will. There have been disappointments in some areas of advice (such as early espousal of the global income tax) and in country practice (the use made of improved IT systems, for instance). But several countries have significantly improved their tax performance over relatively short periods, and econometric analysis (comparing performance in different countries) suggests that many lower-income countries could increase their tax ratios by 2-4% of GDP. A common element of success stories is sustained political commitment at the highest levels: even administrative reforms can prompt strong opposition. Reforms must be entrenched, however, to avoid subsequent slippage.

Significant additional revenue can be raised in many developing countries by established methods, adapted in emphasis and sequencing to countries' unique circumstances. There are important commonalities in reform strategies recommended by the IMF and others – and in the challenges and opportunities that remain:

- building administrations that effectively limit incentives and opportunities for rent-seeking and inappropriate behaviour, and are capable of implementing the voluntary compliance needed to extend the tax base, including by risk management (allocating resources where the risks to revenue are greatest) and taxpayer segmentation (tailoring intervention and services to deal with the unique challenges posed by different groups, starting with a large taxpayer office) – here much remains to be done, but positive results have been seen
- adopting and making readily available clear laws and regulations embodying strong taxpayer protection – the main problem is often implementation
- eliminating exemptions that forego revenue to little useful purpose – these are often still substantial and can amount to several points of GDP
- implementing a broad-based VAT with a fairly high threshold (the turnover level at which registration for the tax becomes compulsory) – in lower-income countries where VAT performance is weakest, base broadening and improved compliance might raise something in the order of an additional 2% of GDP

¹ Executive summary of IMF (International Monetary Fund) (2011). 'Revenue mobilization in developing countries'. IMF Policy Paper. Washington, DC: IMF.

² The paper does not address the taxation of natural resources: Appendix VII provides an overview of issues and advice, which are treated at length in a recent IMF book (Daniel, Keen and McPherson, 2010).

- establishing a broad-based corporate income tax at rates competitive by international standards – more has been done on the latter than on the former, leaving signs of significant scope for base broadening in many lower-income countries
- extending the PIT base and ensuring a coherent treatment of alternative forms of capital income – still a major challenge
- levying excises on a few key items that are adequate to revenue needs and wider social concerns – these too have further potential in some countries
- implementing simple, but coherent regimes for taxing smaller businesses – now receiving increased attention
- strengthening real estate taxes – minimal in many countries, but with potential to transform local government finance in the longer term
- developing capacity for tax expenditure and wider policy analysis – impressive advances in some countries, but much still to do in others.

The protection of the poorest, including through basic public spending, is an overarching concern. The fairness of a tax system cannot meaningfully be assessed in isolation from the spending it finances: a regressive tax may be the only way to finance strongly progressive spending. This makes it important not only to examine the distributional impact of tax reforms themselves, but also to identify specific spending measures to address any concerns they raise. Better persuading taxpayers of the value of the public spending financed by the taxes they pay, including by improving the management and quality of that spending, can further bolster trust in and compliance with the tax system.

There are emerging concerns and issues requiring greater attention. Challenges in international taxation and from regional integration are intensifying, and call for closer cooperation on tax matters – including with advanced economies – in both policy and administration, as well as further support for capacity building. Continued trade liberalisation will put pressure on revenue in many lower-income countries. Scope to meet these and other revenue needs by simply raising standard VAT rates is becoming limited, so the potential lies largely in improving compliance and scaling back preferential treatments. Not least, and important too for the wider legitimacy of tax systems, greater efforts can be made – requiring political will as much as technical capacity – in taxing elites and high-income/wealth individuals.

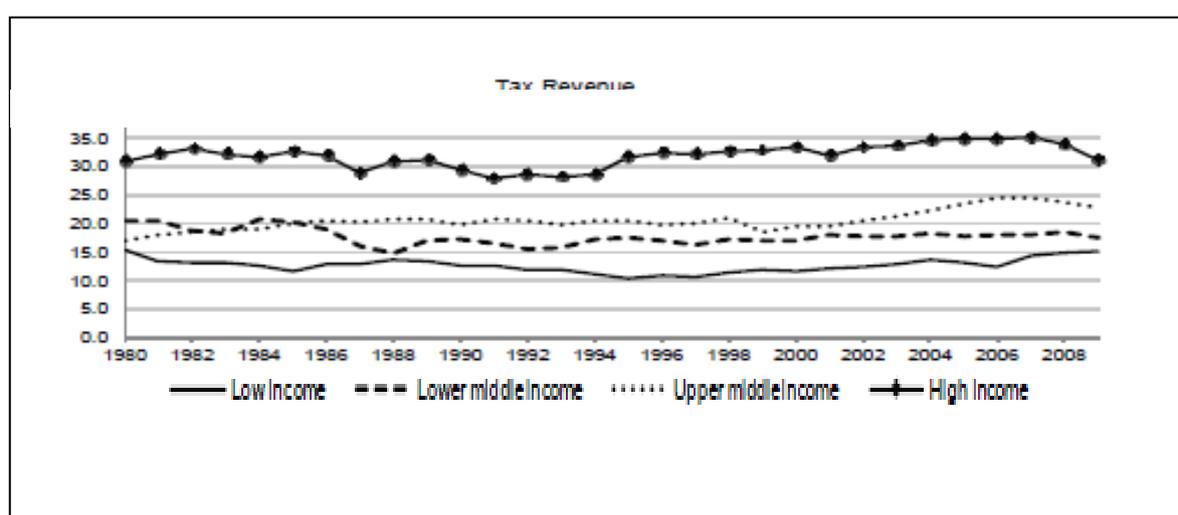
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5 Tax performance in low-income countries – *Oliver Morrissey*

One of the most striking features of tax performance in developing countries is that overall tax-to-GDP ratios have not changed noticeably on average since the early 1980s. This is illustrated in Figure 1. There are years and even periods where averages by income groups increase or decrease, but, with the exception of upper-middle-income countries (UMICs) (where tax-to-GDP on average has fairly steadily increased from about 16% to 24%), the average for each group in 2010 is remarkably close to that in 1980. Particular end years can be misleading as there are some broader trends. In LICs, for example, tax ratios fell, recovered and fell again until the mid-1990s, then recovered slowly to climb back to the initial level. Although particular countries may be exceptions, even if only for fairly short periods, the broad message is that tax revenues have been stagnant across developing countries for 30 years, especially LICs and in SSA.

Figure 1: Tax-to-GDP ratio trends, 1980-2010



Source: IMF (2011, Figure 2)

The rather flat performance of tax revenue disguises changes in composition. For developing countries, including LICs, VAT and corporate income tax shares of revenue have increased, private income tax shares have remained rather flat, and trade tax shares have declined. Measured relative to GDP, the decline in trade tax revenue has not been offset by increases in revenues from other taxes in LICs. In general, as income levels rise the increase in other revenues is more likely to compensate for declines in trade taxes (e.g. in UMICs) (IMF, 2011: 16, Figure 7). Resource tax revenues (often less transparent and more volatile year on year) are important for many SSA countries. Although non-resource tax ratios remained fairly stable around 14% over the period 1980-2005, total revenue (include resource taxes) increased to over 18% of GDP (Keen and Mansour, 2010: 557).³ The implication is that some resource-rich LICs can benefit from increasing resource taxes, but in general (non-resource) tax revenues have been quite stagnant.

Determinants of tax performance

³ Precise trends depend on whether averages are weighted by GDP.

The absence of a trend increase in tax revenues in developing countries is sometimes viewed as something of a mystery by those looking at the high tax ratios in developed countries and expecting revenues (as shares of GDP) to increase with growth. The explanations lie in combinations of the absence of growth in the fundamental tax base even where GDP is increasing and increasing difficulties in taxing the bases that are growing (resource extraction, multinationals and very wealthy individuals). The tax base that is fundamental to increasing tax-to-GDP ratios in a sustained manner is formal sector employment and earnings (the income tax base) and private sector spending (the indirect tax base). If these bases are not growing at the same rate as GDP, it will be difficult to increase the ratio of tax to GDP.

The structure of the economy largely explains relatively low tax-to-GDP ratios in LICs. A large proportion of the population – in agriculture or informal sectors – are difficult to tax because they have low incomes (and expenditures) or are unregistered for tax. The share of agriculture is fairly consistently associated with lower tax revenue, although the share of manufacturing (expected to imply a larger tax base) is only weakly associated with a higher tax ratio (possibly because wages and profits are low to maintain competitiveness). The volume of international trade is important, because there has been a historic reliance on trade taxes in LICs (transactions at the border are more visible), but is not consistently so: it can matter if imports and exports are distinguished, especially for resource exports (to capture resource revenues). The reduction of import tariffs and the elimination of many export taxes as part of trade liberalisation policies have contributed to declining tax revenue in LICs since the 1980s.⁴ Because it is challenging to substitute harder-to-collect income taxes and VAT for the easier-to-collect tariffs, overall revenue fell during this period and has only recently recovered.

Tax ratios are expected to increase with the level of GDP, on the basis that tax collection efficiency increases with development, but there is little evidence for this. A major limitation of cross-country econometric analysis is that these explanatory variables are related on average across countries, and are also related to other potential explanatory variables that are sometimes included, such as institutional quality, governance or aid. Weak tax administration and poor governance encourage non-compliance and increase costs of enforcement; because these tend to be characteristics of LICs, this contributes to the low tax revenues. Increasing tax-to-GDP ratios require growth in the tax base combined with reforms to improve tax administration.

Aid and mobilising tax revenue

At face value it may appear that aid reduces tax effort: countries with higher aid-to-GDP ratios tend to have lower tax-to-GDP ratios. In all likelihood, this is simply because poorer countries have lower tax revenues and receive more aid. Studies try to control for this, but yield mixed and contradictory results; the only general conclusion is that aid has no systematic effect on tax effort.⁵ Some countries may be discouraged from raising taxes because they anticipate aid (but most LICs are raising concerns about the amount of tax that would be expected, given their economic circumstances). In other cases conditions associated with aid may reduce tax revenue, such as tariff reductions as part of trade reform. In general, aid can support improved public finance management and tax collection systems that over time may increase tax collection. Ultimately, however, increasing domestic tax revenue requires growth in formal employment and private spending.

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⁴ In SSA, for example, trade taxes accounted for about 40% of tax revenue in 1980, but this fell to about 25% by 2005 (Keen and Mansour, 2010: 562).

⁵ See Prichard, Brun and Morrissey (2012).

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6 Domestic resource mobilisation in LDCs: trends, determinants and challenges – *summary of study by Debapriya Bhattacharya and Mashfique Ibne Akbar*

The low level of domestic resource mobilisation in least-developed countries (LDCs) is underpinned by a host of factors, including low levels of income, poor financial intermediation, poor 'tax morale' and weak tax collection capacity. Most of these factors are difficult to influence in the medium term. Moreover, domestic savings, national (gross) savings and revenue collections are all affected by the prevailing global economic environment.

LDCs as a group have common structural disadvantages, including low income, weak human assets and various economic vulnerabilities, but are also quite diverse in terms of their endowments. These diversities have important effects on revenue collections. For example, mineral-exporting LDCs face different dynamics from those that rely heavily on the agricultural sector. In any case, the fact remains that the mobilisation of domestic resources is a universal objective that has to be energetically pursued by every LDC, without exception. The mobilisation of domestic resources emerges as a common characteristic of the transition towards structural transformation of LDCs' economies.

It goes without saying that a number of related issues have to be addressed in LDCs, which would include strengthened property rights, the removal of barriers to investment and creating enabling regulatory framework. The Istanbul Programme of Action (IPoA) for LDCs (2011) rightly envisioned that LDCs would need to improve their tax administration capacity and improve the social rate of return on their investments to improve the state of domestic resource mobilisation. Domestic savings were identified in the IPoA as a prime requisite for investment, both public and private. The target of 7% GDP growth stipulated in the IPoA critically depends on sustained increase in investment, which in turn depends on higher rates of domestic savings.

The major issue discussed in the paper are as follows:

- (i) Considering the period of the global financial and economic crisis as the benchmark, it may be observed that gross domestic savings (as a percentage of GDP) experienced a decline in 2008 and 2009 across LDCs. The recovery of the domestic savings rate in 2011 was more significant in the case of Africa than of Asia. However, both regions are yet to reach their respective pre-crisis benchmark. The overall trend in domestic savings indicates that the ratio remained at the same level in the last decade (2000-2010), although the indicator experienced a great deal of volatility in African LDCs.
- (ii) National savings rates in comparison to domestic savings rates demonstrated healthier trends in LDCs in the decade starting in 2000. However, this trend is more characteristic of Asian LDCs that have benefitted from continually robust inflows of remittances. By 2011 Asian and African LDCs have discernibly surpassed the decade's average national savings rate – this observation is again truer for Asian LDCs than for African LDCs. The national (gross) savings rate in LDCs in the recent past underscores the importance of migrant workers' income for LDCs in boosting savings rates, and consequently share of investment in GDP and, therefore, GDP growth. The IPoA has also identified the importance of remittances as a major source of finance for development.

- (iii) Revenue generation (as a percentage of GDP) in LDCs has stagnated throughout the last decade (2000-2010). The relative volatility of tax collections in African LDCs has possibly been caused by the performance of the oil-exporting economies of this group of countries. In contrast, tax collection efforts in Asian LDCs were low (in comparison to their African counterparts), but steady – possibly due to larger manufacturing sectors in their economies. This implies that with the structural transformation of LDC economies guided by the growth of non-agricultural production capacity would lead to a more predictable and resilient tax base. The success of this approach in LDCs would also depend on higher economic growth leading to the creation of new productive capacity, employment and income. There would also be a need to revisit the tax policy, not only to create incentives and provide support to private investments, but also to ensure distributional justice.
- (iv) The findings regarding the changing composition, albeit slowly, of the revenue intake in LDCs may be considered as partly encouraging. The data discussed earlier indicate that the share of international trade tax revenues in total tax revenues is declining in LDCs over time, while tax on goods and services has remained steady. What needs to be noted is that taxes on income, profit and capital gains are increasing slowly. This prospect of such gradual changes in the composition of taxes collected in LDCs may be related to incipient structural changes in LDC economies that would generate more income, wages and profits, as well as capital transactions (and also to the commodity price super-cycle in some countries). The commodity price super-cycle experienced by LDCs in recent years may have also contributed to these emerging changes in the composition of collected taxes.
- (v) LDC governments are faced with the challenge of generating more taxes in view of the fallouts of the global financial and economic crisis and the incremental development needs of their countries, and are undertaking tax-related regulatory and institutional reforms. The results of such reforms remain mixed. However, one has to be mindful of the fact that tax mobilisation in open LDC economies cannot be adequately carried out by national governments. In other words, international cooperation, beyond capacity building in LDCs, is necessary for domestic reforms to be successful. For example, the promulgation of anti-money-laundering laws in LDCs is not enough to prevent the illegal outflow of financial resources. The collection of lost tax revenues by LDC governments is not possible if their overseas counterparts do not cooperate in bringing back those stolen moneys. Our study has reported secondary evidence regarding the high magnitude of financial haemorrhage systematically experienced by LDCs. However, we could not locate ready references that report how much stolen money has been returned to LDCs by banks in developed countries. Similarly, any relevant changes concerning disclosures practices and transparency by the relevant institutions in developed countries are yet to be reported (particularly concerning the Financial Secrecy Act).
- (vi) The econometric exercise undertaken for the study has indicated that the collection of taxes is positively associated with the growth of the non-agricultural sector and in turn pointed to the need for structural transformation of the economy. The fact that per capita GDP turns out to be insignificant in both sets of regressions may be explained by the existing low income levels in LDCs. The degree of openness shows mixed results, pointing to the need for the balanced integration of LDCs into the global economy. The fact that corruption does not show up as a significant factor raises the question of whether the constituents of this indicator are fully relevant for LDCs. In any case, the legal index variable has been found to be positive. This tentatively suggests that improved legal and regulatory frameworks and transparent and accountable institutions in LDCs may

help with tax collection. This conclusion matches the IPoA's guidance regarding the need for improved governance in LDCs.

- (vii) The commitments from development partners to support LDCs in their efforts to improve tax collection remain inadequate. Partners' high emphasis on the need for LDCs to collect more taxes is not often backed up by their support in this area. A somewhat dated figure for technical assistance provided by development partners in the area of sector capacity building for revenue mobilisation amounted in 2009 to less than 0.1% of their development assistance (OECD-DAC, 2012).

In conclusion, it may be underscored that the mobilisation of domestic resources ultimately depends on the level of political commitment of the respective LDCs. Notwithstanding the glimmer of progress, LDCs still have significant progress to make in the area of domestic revenue mobilisation. LDC leaders have to come to terms with the fact that the implementation of the IPoA will remain illusive if significant progress is not achieved with respect to domestic resource mobilisation in their countries. Not only savings, investment and growth are at stake here, but – more importantly – public welfare, poverty alleviation and distributive justice.

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7 Tax incidence in low-income countries – Oliver Morrissey

While increasing revenue is a major consideration in tax reform, the distributional effects and the impact on the poor should be addressed. This requires information on the incidence of different taxes, i.e. who pays (bears the burden of) a particular tax and, more generally, what share of income is accounted for by taxes on households across the income distribution. The public finance literature distinguishes between statutory incidence, i.e. who is legally liable for the tax, and economic incidence, i.e. who ultimately bears the burden after 'incidence shifting' (e.g. while a retailer may be legally obliged to pay revenue from sales taxes to the government, the burden is passed on to consumers through higher prices).

In practice, the true economic incidence may not be known, so the focus of empirical work is on estimating the distribution of tax burdens (tax paid as a proportion of some measure of income) across households (through taxes paid on income or expenditure) while making simple assumptions about their incidence. The conventional assumptions are that consumption taxes (VAT; sales, excises and import taxes) are fully shifted forward to consumers, export taxes are paid by producers, and personal income taxes are paid by income recipients. More demanding assumptions are needed for corporate income taxes, because they can be shifted backward to capital owners (through lower returns) or workers (through lower wages), or forward through higher consumer prices, depending on the inter-sector and international mobility of capital.

Most studies of the distributional impacts of tax in developing countries are based on incidence analysis of particular taxes, mostly indirect taxes and usually for one country, to identify whose purchasing power is altered. There is limited empirical evidence for developing countries, in particular for the effects on the poor, especially in SSA; existing studies are very limited in country and tax coverage.

Distribution of tax burdens

A standard approach to distributional effects is to assess the 'progressivity' or 'regressivity' of a tax. A tax is considered progressive if the tax burden increases as income increases, and regressive if the burden decreases with income. The evidence can be summarised as follows in broad terms:

Personal income taxes	<i>progressive (evasion generally ignored)</i>
Corporate taxes	<i>U-shaped (regressive then progressive)</i>
Property taxes	<i>progressive (but low revenue share)</i>
Indirect taxes and tariffs	<i>generally regressive</i>
Overall tax system	<i>varied, often regressive at low incomes</i>

Some quite consistent findings emerge for particular taxes across a variety of developing countries.⁶

Indirect taxes are difficult to classify in general because consumption patterns and substitution possibilities differ by income group. VAT has become the main indirect tax since the 1990s; it has relatively low progressivity. Indirect taxes are more likely to be regressive if goods that account for a large share of expenditure of low-income households

⁶ See Gemmell and Morrissey (2005).

are taxed (e.g. staple foods). They are more likely to be progressive if such goods are exempt and/or luxuries are taxed at higher rates.

Taxes on imports often appear among the more regressive (less progressive), assuming that the consumption of imported varieties is distributed across households in the same way as the consumption of the relevant product. This will not be a valid assumption if urban and richer households are most likely to consume imports.

The incidence of *export taxes* is assumed to fall on the producer, so taxes on exports produced primarily by smallholders are more likely to be regressive (e.g. cocoa in Ghana, coffee in Uganda, vanilla in Madagascar).

Excise taxes are usually high, given the price inelastic demand for petrol, alcohol, tobacco, etc., but do not appear to be regressive. However, fuel taxes are usually found to be regressive once allowance is made for their effect on transport costs.

Income tax schedules usually have a progressive structure, but perceived widespread evasion undermines their progressivity. Taxes on capital or property (income or wealth) would impact on the rich, but are politically difficult to enforce.

Who bears tax burdens

Much of the policy advice on the design of tax structure reform is concerned with efficiency and revenue, but the incidence and distributional effects are central to political support for taxation. The evidence on the distribution of taxes in SSA countries is rather limited. Indirect tax reforms are likely to have reduced the tax burden on the poor, or at least the urban poor, because there was a general reduction in taxes (tariffs) on food and clothing (which account for a greater share of poor people's expenditure). Although there are well-established concerns regarding the regressive nature of broad-based consumption taxes, there is some evidence that in developing countries such taxes are progressive and that exemptions and differential tax rates can ensure redistributive effects in favour of the poor. Recent tax structure reforms in developing countries have probably made the overall tax burden less regressive, because tariffs and export taxes have been replaced by sales taxes and, more gradually, income taxes (so it may become progressive).

Studies tend to find that tax systems in developing countries are not effective instruments for income redistribution and argue that public spending is a better instrument to redistribute income than taxes, or can offset regressive taxes. This would be a dangerous approach in LICs, because the distribution of public expenditure is often regressive – the poor (especially the rural poor) derive less benefit than richer (especially urban) households from almost all forms of public spending. The distribution of tax burdens remains important.

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8 Trade policy reforms and tax revenues – Oliver Morrissey

Most LICs, especially in Africa, have implemented significant trade policy reforms since the 1980s, largely because trade policy reform was a major element of aid conditionality (especially structural adjustment). The principal reforms were removing barriers to imports and reducing tariffs (between 1985 and 2005 in African countries, average tariffs were reduced by more than half, often considerably more). Although many export taxes were eliminated or at least reduced, export promotion measures were limited. Most of the discussion and motivation related to trade policy itself and the argument for liberalising trade (outlined below). Given the ease of taxing goods at the border, trade taxes were often a large share of total revenue in the 1980s (often half of tax revenue in African LICs), so trade liberalisation had important tax revenue implications. These revenue concerns affected the pace and pattern of tariff reductions; indeed, the revenue itself was often a strong incentive to use tariffs for protection.

Reasons for protection

There are three main reasons why countries use trade barriers (tariffs and non-tariff barriers) to protect domestic industries:

- *Revenue needs.* As the formal private wage and business sector is typically relatively small in LICs and it is difficult to tax the informal sector and agriculture, the border is often the easiest point to levy taxes (because imports and exports are recorded). This makes trade taxes attractive. Furthermore, it also means that sales taxes are more likely to be charged on imports (because they are collected at the border) than domestic goods (because internal collection is less efficient).
- *Political (economy) influences* favour tariffs, because it can appear as if the taxes are being levied on foreign products. Influential producer groups lobby for help from the government and tariffs are a politically cheap way to assist them (and financially cheaper than subsidies).
- *Infant industry arguments* support the previous arguments. Producer groups can argue that they need protection from imports to become competitive, and tariffs can be politically justified as supporting industrial development.

Why liberalise trade?

Economists disagree about many things, but one proposition that attracts widespread agreement is that high barriers to trade damage the economy, especially if there is considerable variation across sectors and products in terms of the extent of barriers, so reducing protection is a 'good thing'. Protection promotes economic inefficiency: resources are directed towards import-competing sectors where the economy may not have any comparative advantage and away from export sectors in which it does have a comparative advantage. When countries reduce protection (i.e. liberalise trade) it encourages a more efficient allocation of resources.

In simple terms, the benefit of trade is that it increases the size of the available market, allowing countries to specialise in production where they have a comparative advantage (factor endowments) or competitive advantage (technology and productivity), thus using scale economies and facilitating a more efficient global allocation of resources. Exports provide access to a larger market and encourage specialisation in products in which one is relatively competitive (efficient). Imports provide access to a greater variety of

(cheaper, imported) products, which increases consumer welfare, while producers have access to more, cheaper, better-quality inputs, allowing them to become more productive. The combination of these benefits is encompassed in the view that 'openness (trade) is good for growth', where openness is measured as imports plus exports as a share of GDP. Trade volume can be interpreted as a measure of the degree of trade integration with the global economy.

Trade policy reform

Most African countries have reduced tariffs since the 1980s under the impetus for trade liberalisation from donors, especially the World Bank. Table 1 provides some examples to show how fairly similar countries can exhibit different patterns of reform. Ethiopia and Kenya started with high average tariffs and a low proportion of products (there are thousands in the tariff schedule) with zero rates, but reduced the average tariff significantly and increased the share of zero-rated products (especially Kenya). Tanzania only reduced the average slightly, although it began at a relatively low level, and actually reduced the proportion zero-rated products. In contrast, Uganda reduced the average tariff to under 10%, with 16% of products zero-rated.

Table 1: Examples of tariff reforms

Country/year	Zero-rated tariffs (%)	Average tariff
Ethiopia 1995	2.58	28.74
Ethiopia 2001	3.10	18.81
Kenya 1991	3.40	35.12
Kenya 2001	6.87	19.26
Tanzania 1995	9.95	19.47
Tanzania 2000	2.36	16.19
Uganda 1994	4.26	17.07
Uganda 2000	16.13	8.94

Source: Jones, Morrissey and Nelson (2011, Table 1)

Although donors certainly played an important role in encouraging tariff reductions, countries implementing trade reforms decided the pace (as shown in Table 1) and could preserve relative protection by, for example, maintaining higher tariffs on sectors they had been protecting. External agents (donors and the World Trade Organisation – WTO) propose an essentially technocratic structure of tariff reductions: an 'across the board' reduction of all tariffs, with the largest reductions for those tariffs that were initially the highest, resulting in a new pattern of tariffs more narrowly dispersed across products around a lower mean. If domestic interests drove the process, one expects that lobbies would try and influence the pattern to preserve their relative protection: tariffs that were initially highest would be reduced the least, resulting in a similar dispersion around a lower mean tariff.

The tariff reforms implemented since the early 1990s were essentially technocratic in nature, eroding the degree of protection and also the relative protection of favoured sectors. Domestic lobbies exerted influence and protection remains (while non-tariff measures may have become more important). Tariffs remain relatively high in Africa compared to those in other regions (except South Asia), but this may owe more to their importance as sources of revenue than as sources of protection.

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9 Recommendations from a 12-country study on the revenue consequences of tax reform as a result of free trade deals for the Pacific⁷ - *summary of study led by Nikunj Soni*

The reality of fiscal reform in small island states is a challenging topic. There is no 'one-size-fits-all' solution for Pacific Islands Forum (PIF) countries in terms of how to potentially adjust to the revenue impact of forthcoming trade agreements. There is a great deal of variety in the Pacific region in terms of level of development and institutional capacity.

Perhaps of greater immediate concern for a study like this is the lack of a trade baseline or other such studies in the Pacific that look at the situation from a microeconomic viewpoint and then build up. Similarly, there are concerns from an administrative viewpoint – e.g. the way in which rules-of-origin requirements are defined and applied could drastically reduce the level of fiscal loss from a potential trade deal emanating from the Pacific Agreement on Closer Economic Cooperation, but would probably increase the loss from the European Union Economic Partnership Agreement.

Economic and trade flow effects due to substitution, as well as other externalities, may well increase the costs of these trade deals. They will certainly increase the political costs of any deal and as such may be more important than simple data analyses like the present one would suggest.

The one factor that is common across every country analysed is that the administrative costs of effecting these fiscal adjustments for budget and tax systems will be extremely high and will impact into the long term. Some other general lessons are listed below.

Promoting the service sector is the key for many PIF countries

This analysis finds that with perhaps the exception of the two largest states, almost every country in the Pacific is in essence reliant on its service sector to drive its economy. It is likely that this is because this is one of the few areas where these countries may have a comparative advantage. The service sector and local agriculture would appear to be the major mainstays of these economies.

Unfortunately, it would appear as if only one Pacific country has had a trade baseline study, or an effective protection rate or comparative advantage study done in the last decade, so it is difficult to say definitively how the various economies may develop. However, if it is the case that the service industry is the most internationally competitive sector of many Pacific economies, then the most appropriate tax regime would be one based on a mix of consumption and income taxes.

Until recently, many Pacific nations have had predominantly production-based tax regimes, which were maintained due to misguided notions of development via industrialisation. Therefore, fundamentally, in the longer term the tax bases of many Pacific countries will change in favour of the service-oriented tax mix of consumption and income taxes rather than trade taxes. The challenge, then, for many Pacific countries is

⁷ This paper examined the revenue consequences of various free-trade agreements on several Pacific islands. Although the paper is five years old, many of the findings remain relevant today. It remains the only comprehensive study of revenue reforms in the Pacific region. See www.forumsec.org/resources/uploads/attachments/documents/Revenue_Consequences_Trade_Liberalisation.pdf.

not what type of change is most appropriate, but how long this will take and what the best strategy is for getting there in a sustainable way.

Political buy-in is essential and will be difficult

Fundamentally, the major challenge will be neither economic nor financial, but political. Fiscal and administrative changes cannot occur in isolation, and without a political mandate such changes rarely work. The polity in the Pacific has observed that bold leaders willing to effect change may suffer electorally, especially if the change was forced, rushed or implemented in a way that involved too much short-term pain in relation to the longer-term gains. This is important for this study, because it was evident in most countries that there was little or no political desire for wholesale fiscal reform. In terms of the implications for the study, the sequencing and tailoring of reforms with corresponding support become key to designing a viable strategy for moving forward.

Administrative reform is more important than fiscal reform

While the direct budgetary impact of the various trade agreements may not be large in many countries, it will still be significant, especially politically. However, improving the administrative infrastructure will be critical to both make the necessary fiscal changes and to extract economic gains from the trade deal. Challenges in this regard stem from the low technical base and levels of human resources in the Pacific and also the high levels of non-tariff barriers imposed by the region's major trading partners. It is likely that there will be a need for short-term fiscal support, but this can only ever be short term – the administrative and infrastructural improvement will have to be long term.

For the smallest states the form of taxation is largely irrelevant, but in the future greater use of consumption taxes may enable a greater simplification of the fiscal regime

This analysis finds that for the smallest states the form of the tax regime is not as important an immediate issue as in other states in that the economy is essentially grant driven – be they grants from donors, fishing or extraordinary items. Thus, for these countries taxes form a very small part of their revenue stream. This means a limited impact from implementing trade tax reforms. However, in the long term this is not ideal, because it means that there will always be self-sustainability challenges. Addressing the fiscal regime should be considered in the context of promoting domestic economic activities and sustainable revenue sources for the government.

In the current environment, however, the form of domestic tax can be a somewhat moot point, because in essence all tax is collected at the wharf, given the lack of domestic industry. Therefore, whether the tax is called an import duty or consumption tax matters relatively little in the practical sense. However, there are differences in terms of equity that will only become evident once these economies develop domestic activities that can be taxed to a significant degree. Some of these states already have a broad range of taxes, including import duties and sales taxes, and it may be easier administratively to have fewer taxes. If global pressure and funding are pointing towards a particular form of taxation, this should not be a major problem as long as the application is kept simple, in line with the extremely limited human resource capabilities in these countries. Administrative improvements and capacity building may be considered the most significant challenge for small states. Forthcoming trade negotiations would present a good way to secure funding to effect these changes.

For the largest states the challenge is more in terms of overall fiscal efficiency and administrative support in order to maximise any gains

For the largest two countries in the Pacific (Papua New Guinea and Fiji) the major challenge associated with forthcoming trade deals is not a fiscal one in terms of taxation – although there are potential revenue losses – but rather more one of how to effect any gains. These countries' fiscal systems are such that they could accommodate changes to the import duty regime by making adjustments at the margin.

However, a much bigger challenge is the economic impact. The loss of key industries such as fishing and sugar will not be politically acceptable unless new industries develop in advance and naturally reduce the reliance on and therefore political importance of older, less globally efficient industries.

While it may be evident that making the necessary fiscal change is a necessary first step towards creating an environment conducive to developing new industries, such arguments are not based in political reality whereby short-term losses – not just financially, but more so economically and socially – far outweigh long-term gains.

Future gains are also unlikely due to infrastructural and technical capacity constraints in these countries that make new products hard to produce. Establishing overseas markets due to external non-tariff barriers is also extremely challenging, if not almost impossible. Overcoming these barriers and thereby increasing domestic production may be more important than fiscal changes in terms of how these deals impact on PIF countries.

Intermediary states face major fiscal challenges, but these should not deter them from slowly moving down the path of trade liberalisation if adequate support and development mechanisms are in place

Many countries in the Pacific have already begun the journey down the path of trade liberalisation. Their experiences have generally been painful fiscally, politically and economically, and as a result there is an understandable reluctance to move further. Fundamentally, given their lack of comparative advantage in the industrial and manufacturing fields, it is inevitable for both equity and economic reasons that they will have to move down this path if they are to continue to grow their economies in line with service industries (the expected area of comparative advantage for these countries). However, in these cases there need to be a clearly defined sequence of steps with accompanying support both administrative and perhaps, to a lesser extent, financial. Political concerns and past experiences will determine that the time frame for this change will be extremely long term – decades perhaps – and it will be contingent on moving from one step to the next only after some concrete demonstrable gains have been made.

Sequencing implications

Sequentially, there is an immediate need for trade baseline studies in all countries and a more detailed understanding of the exact implications of forthcoming trade negotiations. These will need to be instigated at the same time as long-term institutional modernisation programmes for every revenue-collecting agency and many expenditure-controlling agencies. For the countries that have to adopt new taxes, the first step must be ensuring political and administrative support for the change. Following the political endorsement, there is a need for each country to outline what it is willing to do, when it will do this and what resources it will need. This should then form the basis of future actions and negotiations as once a deal is agreed it should be trigger based. PIF countries should gradually liberalise, not based on a fixed timetable (no matter how long), but on achieving certain economic and fiscal targets. Thus, if any element of the support programme fails, no country will be forced to endure further fiscal losses that jeopardise the whole project.

10 Income inequality and fiscal policy – Francesca Bastagli, David Coady and Sanjeev Gupta

Rising income inequality is a growing concern for policymakers in many economies. In a recent paper we examine trends in the distribution of income and evidence on the redistributive impact of fiscal policy – taxes and transfers – in both advanced and developing countries (Bastagli, Coady and Gupta, 2012).

The income inequality data for 1995-2005 highlight:⁸

- the considerable differences in disposable income inequality across regions and countries.⁹ For instance, average inequality in the two most unequal regions (SSA and Latin America) exceeded a Gini of 0.45 every year, while average inequality in the two most equal regions (emerging Europe and advanced economies) was less than 0.34, a difference of 11 percentage points
- large increases in income inequality in all regions over this period, with declining trends in Latin America starting in 2000.

The most striking finding is the difference in inequality between advanced and developing countries. Differences in the redistributive impact of fiscal policy explain the bulk of these differences. For instance, six Latin American economies (Argentina, Brazil, Chile, Colombia, Mexico and Peru) have fiscal policies that reduce income inequality by only about 2 percentage points, from 0.52 to 0.50. This compares to a decrease of about 20 percentage points in 15 European economies, from 0.46 to 0.27.

The different role of fiscal policy in advanced countries, compared to fiscal policy in developing countries, provides a basis for identifying inequality-reducing fiscal reforms in the latter.

The redistributive impact of fiscal policy in advanced countries

Taxes and public transfers have played a significant role in offsetting the increase in inequality in advanced countries. Over the past two decades fiscal policy decreased inequality by about one-third in OECD countries. Although income taxes are important in many economies, most redistribution in OECD countries is achieved through the expenditure side of the budget, especially via non-means-tested transfers, including public pensions and universal child benefits. On the tax side, personal income taxes achieve the greatest amount of redistribution.

The redistributive impact of fiscal policy is even higher if in-kind transfers, such as public education and health spending, are taken into account. The Gini coefficient for disposable income decreases by as much as another 6 points when these are considered. Indirect taxes, on the other hand, are typically highly regressive. The effective indirect tax rate, calculated as the share of consumption taxes in total household income, is on average three times higher for low-income families than it is for those in the top decile of the income distribution.

The limited redistributive impact of fiscal policy in developing economies

⁸ We assembled a comprehensive database on trends in income inequality in 150 advanced and developing countries and report the Gini coefficient, a commonly used inequality measure, which runs from 0 (where everyone in the economy has the same income) to 1 (where one person has all the income).

⁹ Different income concepts are used to measure inequality and policy impact. Disposable income is obtained by subtracting direct taxes and adding direct cash transfers to market income. The comparison of market and disposable income inequality provides an indication of the impact of direct taxes and transfers.

Fiscal policy plays a much more limited role in reducing inequality in developing economies. Their higher income inequality is often explained by lower levels of taxation and public spending, as well as a greater reliance on less progressive and regressive tax and spending instruments.

Indirect taxes. Greater reliance on indirect taxes and narrower consumption tax bases limits the redistributive potential of taxes in developing countries. Taxes on imports, which continue to be important in low-income economies, often appear to be among the most regressive, while excise taxes – such as those on fuel, alcohol and tobacco – tend to be progressive. Although the distributive impact of value-added taxes is mixed, there is strong evidence that the exemption of small businesses (including agriculture and the informal sector) can lead to more progressive incidence.

Direct taxes. Personal income and property taxes in developing countries are generally progressive. However, high levels of tax non-compliance combined with narrow income tax bases can contribute to low income tax ratios and low income tax progressivity. Often this results from widespread exemptions and the preferential treatment of capital and other income. Resource taxation can be progressive.

Expenditure. Low spending and poor targeting limit the redistributive capacity of transfer programmes. A large informal sector further complicates the development of such programmes. In most developing economies participation in social insurance schemes is restricted to high-income workers in the formal sector and public sector employees. In addition, expenditure on social assistance programmes is often low and poorly targeted. Moreover, the fiscal space for expanding more distributive social transfers is constrained by large expenditures on regressive universal price subsidies, especially energy price subsidies.

In-kind public spending has been found to be regressive in many developing countries, although individual components can be progressive. This regressivity reflects lack of access by low-income households to key public services such as education and health. Aggregate education and health spending is regressive in many developing economies, especially in LICs. The progressivity of primary health-care spending is dominated by the regressivity of higher-level health spending. The progressivity of primary education spending is dominated by the regressivity of secondary and tertiary education spending.

The recent expansion of social assistance programmes provides a promising approach for enhancing the distributive power of public spending in developing countries. Among these, the implementation of cash transfers targeted at low-income households has made important contributions to the recent reduction in inequality in Latin American countries, particularly Brazil.

Enhancing the redistributive role of fiscal policy in developing economies

The challenge in developing countries is to enhance the redistributive role of fiscal policy while simultaneously promoting growth and maintaining fiscal sustainability. This requires strengthening governments' resource mobilisation capacity, but equally requires the development of more progressive social spending and comprehensive social protection systems.

Tax policy could focus on broadening tax bases. Expanding corporate and personal income tax bases by reducing tax exemptions, closing loopholes, and improving tax compliance can raise revenues to finance progressive transfers. Expanding the consumption tax base (e.g. through broader adoption of VAT) can increase tax revenues. These consumption taxes can be designed to mitigate adverse distributional impacts (e.g. through the appropriate treatment of small businesses and the application of excise

taxes to luxury goods). In many countries, eliminating fiscally costly and inequitable universal price subsidies can generate substantial resources in the short term. Especially important are energy subsidies, including tax subsidies (i.e. forgone tax revenues), which can escalate to very large percentages of GDP when international energy prices rise sharply.

However, the large demands on these resources to finance broader development objectives mean that greater emphasis will need to be placed on improving the progressivity of public spending. This can be achieved through greater reliance on better-targeted social expenditures aimed at protecting households from poverty and improving education and health outcomes among disadvantaged households.

Increasing progressive public expenditures can help foster political support for reforms. Expanding targeted safety net programmes can help reduce poverty, while expanding education, health and physical infrastructure programmes can also benefit middle- and upper-income groups, promote growth, and thus broaden political support.

The recent success of social cash transfer programmes in many economies suggests that these programmes could play a greater role in the social protection strategies of developing countries. Broadening the coverage of public pension systems would also play an important role in reducing inequality. Where their expansion is constrained over the short term by administrative capacity and fiscal constraints, greater use of targeted social pensions may be warranted.

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11 Fiscal regimes for extractive industries: design and implementation – executive summary of IMF study (2012)¹⁰

This paper suggests ways better to realise the revenue potential of extractive industries (EIs – oil, gas and mining), particularly in developing countries. This has become an increasingly important topic of IMF policy advice and technical assistance, with recent discoveries in many developing countries lending it a new urgency. The paper sets out the analytical framework underpinning and key elements of the country-specific advice given.

Revenues from EIs have major macroeconomic implications. EIs often account for over half of government revenue in petroleum-rich countries and for over 20% in mining countries. Dependence on EI revenues in resource-rich countries – now about one-third of the IMF’s membership – has increased, and this seems set to continue.

Revenue objectives loom large in designing fiscal regimes for EIs, but involve complex trade-offs. Generating employment in related activities and addressing environmental impacts can be significant concerns, but the revenue from EIs is often the main benefit to the host country. It is the prospect of substantial rents – returns in excess of the minimum required by the investor arising from the relative fixity of supply of the underlying resource – that makes EIs especially attractive as a potential source of revenue.

Fiscal regimes for EIs vary greatly, with a wide range of instruments being used. The paper attempts to gauge how current regimes share rents between government and investors. Data analysed here suggest that in mining, governments commonly retain one-third or rather more; simulations suggest higher government shares (40-60%), but do not capture all possible sources of revenue erosion. They also suggest that the government share is higher in petroleum: around 65-85%. Fiscal regimes that raise less than these benchmark averages may be cause for concern, or – where agreements cannot reasonably be changed – regret.

Country circumstances require tailored advice, but a regime combining a royalty and a tax targeted explicitly at rents (along with the standard corporate income tax) appeals to many developing countries. Such a regime ensures that some revenue arises from the start of production and that the government’s revenue rises as rents increase with higher commodity prices or lower costs. In this way it can also enhance the stability and credibility of the fiscal regime (although processes to allow renegotiation may also be needed). It can also balance the challenges that each instrument poses for administration. Transparent rules and contracts tend to improve stability and credibility. Poorly designed international tax arrangements, however, can seriously undermine revenue potential.

Effective administration is vital, but complex EI fiscal regimes and fragmented responsibilities are often major impediments. Royalties need not be as easy to administer nor rent taxes so hard as is sometimes believed.

¹⁰ Executive summary of IMF (International Monetary Fund) (2012). ‘Fiscal Regimes for Extractive Industries: Design and Implementation’. IMF Policy Paper. Washington, DC: IMF.

12 Zambia mining sector fiscal benchmarking and assessment – summary of PEAKS helpdesk response by Dan Haglund

This PEAKS helpdesk response explores how Zambia's tax regime for mining compares internationally in terms of absolute measures of key tax rates and subjective perceptions among mining investors. The research also provides a short commentary on how effectively Zambia is collecting and managing its mining sector revenue.

This research note began by placing the Zambia mining sector fiscal regime in the historical context of privatisation in the late 1990s, which was followed by a boom in copper prices. It reviewed the fiscal regime for mining and compared it internationally by comparing headline rates for royalties and corporate income tax in Zambia and other major mining jurisdictions. However, this assessment found significant differences between countries in terms of how these taxes are calculated (in particular, the bases used for their calculations). As a result, on their own such a comparison of 'headline rates' provides limited insight into how would-be investors perceive the mining sector.

The note argued that perceptions offer an alternative and complementary approach to examining how Zambia compares to other mining countries from the perspective of investors. Based on this assessment using the Fraser Index component covering fiscal regimes, specifically 2011/12 data, Zambia is positioned around the median of African countries and on par with South Africa, worse than Botswana, but better than the Democratic Republic of Congo.

Importantly, perceptions that the fiscal regime for mining in Zambia is attractive does not necessarily mean that the fiscal rates (in the context of bases adopted by each country) are themselves attractive, and vice versa. As noted above, investors tend to view fiscal regimes in a broader context of:

- risks to existing framework (its historical volatility and expectations regarding future changes)
- the possibility of negotiating a deal that is 'better' than the 'official' headline rates (through exemptions/allowances)
- other factors shaping the economics of the project (e.g. if the geology is very favourable and extraction is low cost, a firm will be able to accept a higher tax rate, all things being equal).

This diversity of 'drivers' behind investment illustrates the challenges of talking about the 'competitiveness' of a sector's fiscal regime in a narrow sense. Moreover, different companies will weigh the above factors differently (e.g. depending on their access to low-cost import markets), further complicating an assessment of what an 'average' investor would consider attractive. Importantly, government and its development partners have a role to play in promoting policies that make investment more attractive, including by increasing the predictability of the fiscal regime while reducing the costs of mining (from infrastructure to skills and the quality of geodata). Turning to the question of how effectively Zambia is collecting and managing revenues from the mining sector, it was noted that the Extractive Industries Transparency Initiative has brought welcome transparency to the sector, but remains limited in scope. More recent debates have been less about whether revenue is going missing on its way from companies to government and more around whether Zambia is collecting what it is due. In this context the main challenges for the country lie in reducing the complexity and opacity of the mining sector fiscal framework while boosting capacity among government agencies to monitor and collect fiscal contributions from the sector. Addressing these challenges can serve as a

win-win situation for government, industry and development partners by increasing the taxes collected and satisfying those who are calling for greater contributions from the mining sector without further changes to an already-volatile fiscal regime.

The way forward will require a better understanding of what the sector's broader contribution is and what its needs are in order to create the space for public policies beyond the fiscal regime (e.g. with respect to planning, education and infrastructure) that explicitly take into account the mining sector. More open discussion between the sector and its host government facilitated by donors would help to build this awareness.

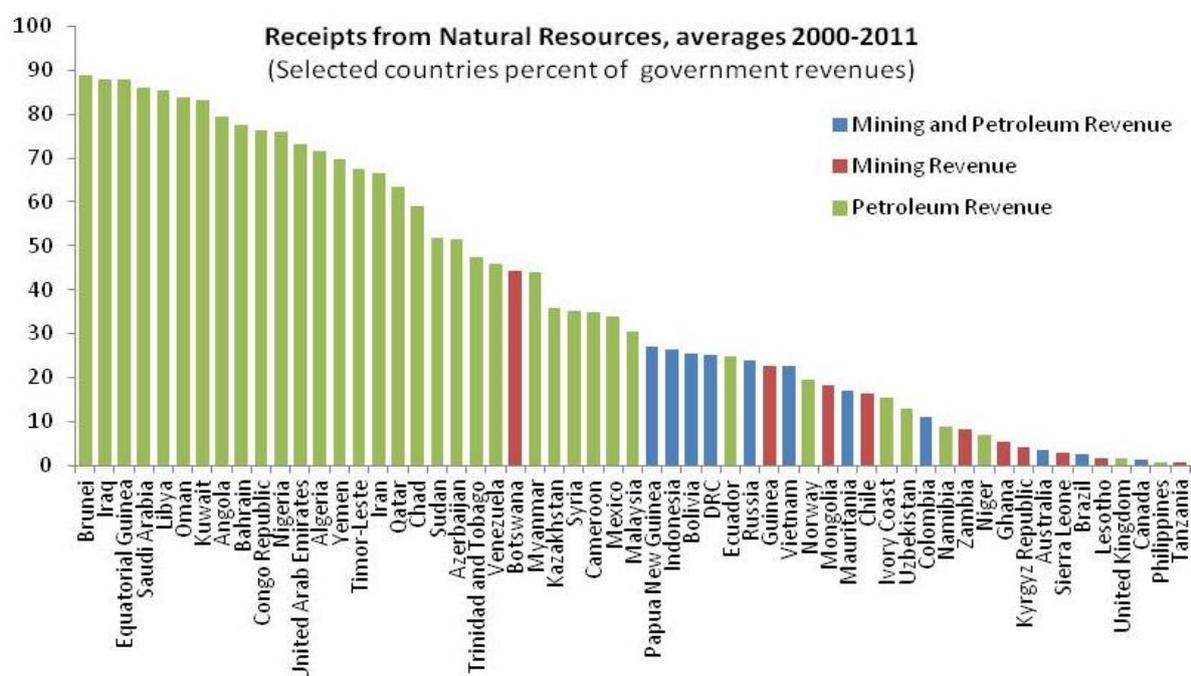
The full paper can be downloaded from [here](#)

13 Taxation and extractive industries – Dirk Willem te Velde

Taxation on EIs is a complex issue. EIs cover mining and petroleum. This notes discusses both, but with an emphasis on mining issues (but there are differences between mining and petroleum with respect to the distribution of costs, benefits, and risks over the exploration and development phases).

With the increases in mineral prices in the last decade and the discovery of several new mineral resources in recent years, the potential for benefits from EIs is high. A crucial question is what level and timing of rents is desirable. In practice, the share of government revenues varies markedly across countries, as illustrated in Figure 2.

Figure 2: Government revenue from EIs, 2000-2011 (% of government revenues)



Source: Unpublished IMF document

The taxation of EIs is affected by a number of specific factors. Rents can be large, but the circumstances are highly volatile (e.g. due to volatility in resource prices) and uncertain (i.e. difficult to predict). The extraction and operation of mineral resources require large initial investments, or sunk costs, while revenues occur over time. This means there will be an increase in the risks for a private investor whose returns will depend on government policies over a long period. This problem can lead to 'hold-up' or low levels of investment. Furthermore, EIs often depend on a few actors and are characterised by asymmetric information issues, weak state capacities and dispersed market power, making for challenging state-business relationships. This tends to involve multinationals that can use international operations to shift the tax base. Finally, resources are scarce and non-renewable.

A key objective is to maximise taxes on rents from EIs over time. 'Rents' – the excess of revenues over all costs of production, including those of discovery and development, as well as the normal return on capital – are an especially attractive tax base, because they

can in principle be taxed at up to 100% without making the activity privately unprofitable. EIs have other potential impacts, but these are often low. For example, direct and indirect employment effects (including through linkages) tend to be low and there are often few spillover effects. While EI projects can lead to significant export resources (a positive balance-of-payment effect), they can also lead to new and significant imports of goods and services and significant outflows of dividends (a negative balance-of-payment effect). Maximising fiscal revenue (financial capital) to compensate for the depletion of natural resource stock is therefore important, but there will be a trade-off in terms of attracting sufficient investment, remaining flexible over the cycle and making the taxation system administratively feasible.

Three main types of fiscal schemes exist in extractive industries: (i) contractual schemes (production sharing through owning equity); (ii) tax/royalty schemes; or (iii) investment in infrastructure. Different instruments are in place: bonus payments, royalties on gross revenues (which make for immediate revenues, but increased cost for business), corporation tax, taxes on rents, and others. In mining there are different tax instruments: direct taxes (profit-based, such as corporate income tax or variable profit tax; revenue-based taxes (such as mineral royalties or windfall taxes) and indirect taxes (VAT and customs duties). There are also many adjustments. We follow Manley (2013) in describing these taxes:

- **Corporate income tax (CIT)** is applied as a fixed percentage of a company's profits during a particular period, usually one year. Even though there may be headline CIT rates, the practice depends on numerous provisions.
- A **variable profits tax** varies according to some measure of profitability or return on investment. Such a resource rent tax aims to maximise revenues from mining without sacrificing the further investment required for the viability of the industry and fiscal revenue in the future.
- A **royalty tax** is levied as a fixed percentage of the value of a company's sales of a particular mineral. Royalties are a more reliable revenue source than profit-based taxes, because some revenue will be collected as soon as production starts, regardless of whether the firm is profitable or not.
- A **windfall tax** is levied on the value of a company's sales of a particular mineral in which the rate increases with the price of the mineral. This tax can be more progressive than a fixed royalty rate.
- A **VAT** is an indirect tax that is applied as a fixed percentage on the difference between the value of a good when it is sold and the value of the intermediate inputs used to produce that good. While mining firms are usually liable for VAT, it is rarely a significant form of mining taxation, because mines are refunded by the tax authority for the VAT levied on their purchases of inputs.
- **Customs duty** is a tax applied as a fixed percentage (usually on the value or sometimes on another metric such as the weight) of a good that is imported into or exported from a country. Import (and export) taxes raise government revenues and protect industries, but distort economies.

There are many adjustments to these headline rates. Mines may not pay (all of) a certain corporation tax when there are depreciation allowances, loss-carry forward provisions, ring fencing and tax holidays. For example, the time when mines depreciate their initial investment affects the calculation and timing of profits and hence taxes paid. A country such as Zambia has changed the type, base and level of taxes quite a number of times in recent years (e.g. see Haglund's essay in this document; Manley, 2013). Its mining revenue has also changed, increasing from 1.9% of GDP in 2010 to 5.5% in 2011

(mainly due to payments of corporate windfall taxes), but fell back to 3.8% of GDP in 2012 (despite a doubling of the royalty rate from 3% to 6%) and it is projected to be around 3% of GDP in the medium term by the IMF.

Tax administrators face a range of further challenges such as transfer-pricing abuse, reported value of production, debt payments and hedging. For example, when multinational companies calculate taxable income for their operations in each country, they need to put a price on goods and services traded among units of the same multinationals. But when such prices do not exist, what are the correct prices to use? In practice, companies can use this mechanism to transfer value to jurisdictions where taxes are low. In this way, tax revenues for mining countries could be reduced significantly. Each country should have detailed requirements for how a company should deal with transfer prices, but monitoring is a challenge. Other challenges involve reporting debt in those high-tax areas when interest rate payments can be deducted or the use of hedging against risk, which can include implicit price changes. Discussions this year in the run-up to the G8 and G20 have highlighted the need to address various global tax issues, including the implementation of transfer-pricing principles.

Countries such as Zambia have announced they want to address the issue of transfer pricing (*Financial Times*, 2013). Mining companies are accused of selling copper at artificially low prices to other parts of the same conglomerate so that taxable profits in Zambia are low, while profits are reportedly high in the buyer's country, which may have low taxes. There are accounting standards for developed countries to address transfer-pricing concerns, but how can developing countries with fewer capacities to assess adherence to such standards minimise transfer pricing?

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14 Tax, investment and industrial policy – Dirk Willem te Velde

There is renewed interest in the role of industrial policy in promoting investment and growth. According to Pack and Saggi (2006), industrial policies are any type of selective intervention or government policy that attempt to alter the structure of production toward sectors that are expected to offer better prospects for economic growth than would occur in the absence of such intervention. Industrial policy can help to address market and co-ordination failures in the investment and growth process. Tax incentives can be seen as part of industrial policy. Many countries have used tax incentives in the (mistaken) belief that they will attract investment and raise growth. This note provides a rough classification of incentives, discusses WTO compliance with incentives and reviews the impact of incentives.

What are tax incentives?

There is a diverse spectrum of tax incentives that may affect the private sector directly (e.g. tax on corporate income) or indirectly (e.g. duties on imported raw materials and machinery). Qureshi and te Velde (2007) classify tax incentives into four broad categories, as follows:

a. Corporate tax reductions, exemptions and deductions

Low statutory tax rates. A low statutory tax rate is a general incentive that applies a low tax rate to all business activities regardless of the age of the business, its production technology, sector, location, etc. The effect of a low statutory tax rate on government revenue is not obvious and depends, among other things, on taxable income elasticity.

Preferential tax rates. Preferential tax rates are tax reductions given to specific sectors or to businesses with certain pre-specified criteria such as firms undertaking new investments, investing in R&D or listing on stock exchanges. Although they are considered to have a lower impact on total revenues compared to low statutory tax rates, in reality the situation might be different because firms may engage in aggressive tax planning to save profits. These incentives are considered to be more distortionary than low general tax rates, since they bias the allocation of capital and may direct investment to low-return projects (Bolnick, 2004).

In addition, to ensure that the preferential tax incentive is efficient, the government needs to undertake a serious survey of the economy and offer preferential treatment only to those sectors where expected investment yields or economic benefits are high, and those that will help the economy to achieve its policy objectives. Since most developing country governments lack this kind of planning capacity, these incentives are frequently offered to the least-deserving beneficiaries, costing the national exchequer and economy much-needed revenue.

Tax holidays. Tax holidays are specific tax exemptions for a specified time period. They are the least preferred type of incentive among tax specialists because they suffer from a number of serious limitations. Although many of the disadvantages of tax holidays are similar to those of preferential tax rates, the costs to the economy in terms of lost revenue and the misallocation of capital are expected to be higher. Tax holidays tend to encourage short-run businesses that involve low capital and low technology. The system may also be exploited if existing firms redesign their existing businesses as new ones. Furthermore, they provide an incentive for tax evasion because taxable businesses can

build liaisons with tax-free firms and attempt to shift their profits through transfer pricing (Tanzi and Zee, 2000).

Extra deductions. Extra deductions refer to deductions over 100% from taxable income for certain expenses that enhance productivity or stimulate exports such as expenditures on R&D, labour force training and development, international marketing, etc. They may also include employment-based deductions where governments reduce the social security contributions paid by enterprises or provide tax credits or allowances based on the number of employees in a particular firm.

Loss carry forwards. Loss carry forwards allow investors to carry a fixed ratio of their losses forward (or backwards) for a specified duration. They are particularly beneficial for businesses that become successful and profitable after some years of operation. They may also encourage firms to take the risk of entering into new lines of operation or expanding their current businesses, because in these situations some firms incur heavy costs at the beginning and run into losses.

b. Investment allowances and investment credit

Investment allowances refer to writing off a percentage of the cost of capital in the first few years of operation to reduce the amount of taxable income. The purpose of this incentive is to enhance the cost-recovery process for businesses. Investment allowances are deducted against the tax base of a firm, thus allowing investing firms that pay a higher corporate tax rate to obtain greater tax relief on a given amount of investment allowance claimed. Investment credits refer to a reduction in the corporate tax liabilities of firms making new investments in capital equipment. Unlike capital allowances, the level of corporate taxes does not affect the tax relief obtained from investment credits.

The purpose of both capital allowances and investment credit is to encourage capital investment in the economy. However, they are more valuable to firms if they can be carried forward or backward. Their main disadvantage is that they may encourage hiring capital at the cost of labour. They may also encourage short-run investments and the rapid replacement of machinery and equipment. However, they are considered to be better instruments than tax holidays, since they can be better targeted for promoting specific investments and have a lower revenue cost.

c. Taxes on dividends, interests and capital gains

Taxes on dividends and interest payments generally take the form of withholding tax, where the tax is retained at source and paid directly to the government. However, the system varies across countries. The idea behind withholding is to limit tax evasion by making the investors' net payments. Governments may reduce withholding taxes or reduce them to zero for a specified period to attract investors. Such incentives may be targeted particularly at foreign investors, and non-residents may be exempt from withholding taxes. Taxes can also be reduced or eliminated on dividends remitted abroad by foreign investors.

d. Taxes on inputs and imported goods

VAT exemptions

Relief from tax on inputs or VAT is a common form of tax incentive for producers, especially those engaged in export-oriented activities. Tax credits are provided to producers for all VAT paid on inputs. To spur the domestic raw material industry, governments may also offer incentives for using local inputs in the form of tax credits for the net local content of outputs (the value of sales net of depreciation of capital and the value of imported inputs).

Reduced duties and tariffs on raw materials and capital

Reducing custom duties and tariffs on imported raw materials and capital is another form of tax incentive. This incentive, however, may discourage the development of a domestic capital goods industry, since reductions are offered for imported capital goods. In addition, it creates administrative problems, because importers could misclassify products that are dual in nature as consumer goods rather than capital, thereby evading tax.

VAT exemptions and zero or reduced duties and tariffs may apply to all firms in export-processing zones (EPZs). EPZs are duty-free zones where businesses are free of direct and indirect taxes. Hence, all inputs, capital equipment, land, interest income and dividends of firms operating in EPZs are in general tax free.

WTO rules relating to incentives

WTO rules constrain countries in offering certain trade-distorting incentives. Three types of agreements relate to investment incentives or the use of subsidies. None of them constrains LDCs in their incentives programmes at present, although this might change in the far future. Non-LDC developing countries already face more stringent rules.

Firstly, the 1995 Agreement on Trade Related Investment Measures made the imposition of investment-related performance measures, such as local content or export requirements, actionable.

Secondly, there are two sets of rules on the use of subsidies for exports aiming to reduce trade distortion. The Agreement on Subsidies and Countervailing Measures makes the use of subsidies on industrial products, and hence the use of investment incentives, actionable under certain circumstances (amber). The agreement uses a traffic light approach:

- *Red*: prohibited subsidies (de jure)
- *Green*: non-actionable (on the basis of policy rationale, e.g. general R&D subsidies)
- *Amber*: actionable (only when adverse effect is proven: '*serious prejudice*').

Thirdly, the Agreement on Agriculture covers the use of subsidies (including by developed countries) in agriculture. It uses a box approach for subsidies:

- *Amber box*: reduction requirements for trade-distorting subsidies, but *de minimis* provision
- *Green box*: minimally trade-distorting subsidies (e.g. for economic, social and environmental reasons)
- *Blue box*: reduction commitment to a certain level (without the need to prove adverse effects).

There are much higher ceilings (10% rather than 5%) for developing countries (even if they were able to subsidise their agricultural exports).

Impact of incentives

The literature suggests that specific incentives are less effective in attracting FDI than so-called general economic fundamentals such as good quality and appropriate education and infrastructure. For example, Jenkins and Thomas (2002) survey firms in Southern Africa and analyse the main determinants of private FDI in the region. They find that tax incentives have a minor influence on FDI. Around 70% of the surveyed foreign firms indicated that tax incentives in the host economy were irrelevant to their investment decisions.

Yet incentives tend to have an effect on the location choice on the margin, and tax lawyers take into consideration the presence of tax treaties when advising their clients. Incentives are most effective in determining in which of a number of similar locations footloose export-oriented investment will locate. Morisset (2003) argues that both time series analysis and surveys indicate that tax incentives are a poor instrument for compensating for negative factors in a country's investment climate, but that incentives do affect the decisions of *some* investors *some* of the time. Surveys often indicate that business tends to be more negative about the usefulness of incentives than government officials. A number of pros and cons of incentives are summarised in Table 2.

Table 2: Pros and cons of tax incentives

Type of tax incentives	Pros	Cons
Tax holidays	Benefits begin when company starts, while low corporate taxes take time	<ul style="list-style-type: none"> • Offer short-term benefits • Tend to attract footloose investors • Favour new over expansion of existing investment (although distinction often difficult), and over investors with long-lived depreciable capital
Write-offs of investment expenditure	Promote new investment	<ul style="list-style-type: none"> • Limitations for projects with long gestation periods • Require well-developed accounting systems and implementing agencies
Low effective corporate tax	Signalling effect of low corporate taxes used by small countries such as Hong Kong, Lebanon, Mauritius	<ul style="list-style-type: none"> • Reduces tax revenue in short run
Eliminate all investment taxes	Tax havens	<ul style="list-style-type: none"> • Attracts unsustainable investors • Creates the need to rely on consumption and employment taxes

Source: Morisset (2003)

In some cases fiscal regimes have successfully affected the type of multinationals that host countries attract. For instance, the Singapore's Pioneer Industries Ordinance of 1959 helped develop 'new' products. The ordinance was part of an industrial strategy that focused on attracting employment-generating multinationals in the 1960s and early 1970s. Singapore was flexible enough to shift the focus after wages rose and labour was upgraded towards targeting capital-intensive projects in the 1980s and knowledge-intensive sectors in the 1990s. It is also generally known that the Irish used tax incentives to attract US multinationals into Ireland in the 1960s and 1970s from where they could service the EU. These incentives were removed in 1990, although at that stage Ireland had been able to build economic fundamentals to persuade foreign firms to stay. Unfortunately, many specific interventions in a low-income country have failed, although there are some examples of some effects.

Investment incentives could be assessed on the effect on revenue losses (the view taken by ministries of finance), the ability to generate a return for additional investment (the approach of ministries of trade and industry), and their general effects on governance (discretionary incentives can foster challenges). Revenue loss calculations are often static (assuming there is no change in behaviour), so this can be problematic, but effects can be sizeable (the value of imports lost due to concessions is often worth up to 10% of GDP in the Caribbean; see Table 3). There are surprisingly few quantitative assessments

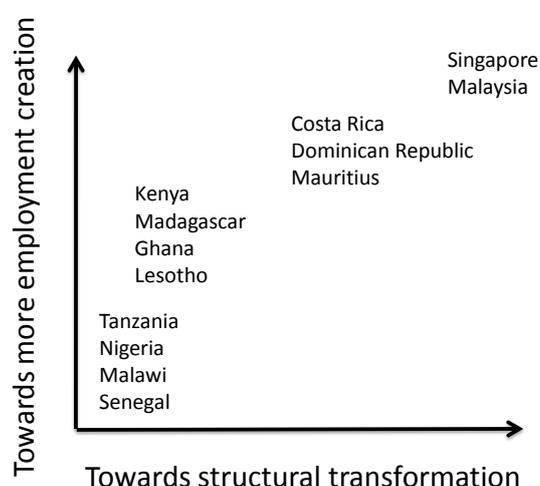
of the benefits of tax incentives in developing countries, because this is difficult to assess, given the lack of counterfactuals and data. Te Velde et al. (2005) found some firm level evidence (comparing value of concessions with investment) that investment was higher in firms in St Lucia that received more incentives (Figure 3). But Te Velde et al. (2007) suggest that EPZ incentives in Malawi tended to be poorly targeted; Kingombe and Te Velde (2012) find different performance of special economic zones (SEZs) across countries (figure 1 for the effects on employment and productivity), suggesting that a range of complementary host-country factors (investment climate, skills and technology policies, etc) determine whether SEZs concessions perform well. Some countries offer lots of incentives but without success, others attract investment regardless of incentives, and some others use incentives to promote a greater impact of SEZs.

Table 3: Caribbean examples of customs' revenue losses from concessions, 1991-2003 (% of GDP)

	1991-1993	2001-2003
Antigua and Barbuda	5.1	9.2
Dominica	4.2	4.3
Grenada	11.4	11.3
St Kitts and Nevis	5.8	12.2
St Lucia	5.9	5.9
St Vincent and the Grenadines	6.7	6.1

Source: Meyn et al. (2008)

Figure 1: The impact of SEZs on employment creation and structural transformation varies across countries



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15 Recent G8 and G20 discussions on tax – Dirk Willem te Velde

Tax was a hotly debated issue in the run-up to the G8 summit in June 2013 and the G20 summit in September 2013, with Western media featuring headline news on tax avoidance every day focusing on companies such as Starbucks, Google and Apple. The G8 and G20 have provided a stimulus for further international cooperation in the area of tax.

Tax evasion, tax avoidance and transfer pricing are among a range of international tax issues affecting developed, developing and offshore countries. Large amounts of cash, deposits and foreign direct investment (FDI) are involved, as the following examples indicate. For example:

1. The Cayman Islands had some \$2 trillion worth of portfolio liabilities in 2011 (IMF statistics).
2. Bank of International Settlements data suggest that offshore centres had around \$1.4 trillion worth of deposit liabilities to non-banks, or 20% of the world's liabilities (multiply this by a factor of 3-4 to get an estimate of funds hidden away in offshore centres).
3. Small islands such as the British Virgin Islands and the Channel Islands have FDI stocks (2.5% of world stock) equal to a major European country.
4. Several European countries are involved, e.g. Luxembourg, the Netherlands, Hungary and Austria channel some 80% of their inward and outward stocks through special-purpose entities whose main purpose is to avoid taxation. A quarter of UK profits on FDI in 2011 was reported to be in Luxembourg and the Netherlands.

The debates on base erosion and profit shifting paint a rather bleak picture of the future of taxing mobile factors such as capital. So far, corporation taxes as a percentage of GDP have remained relatively stable in OECD countries in the past few decades (although corporate profits have risen), and actually increased in developing countries due to improved tax collection efforts. Nonetheless, tax-to-GDP ratios are often too low in developing countries to provide for the public goods that are essential for sustained growth and development.

Recognising the challenges, the major international agencies issued a report in 2011 for the G20 entitled *Supporting the development of more effective tax systems*. Recalling their suggestions on what the G20 could do helps to inform what the G8 can do now, e.g.

- deepen international cooperation (e.g. assistance to supporting tax systems in developing countries, conducting spillover analyses of G20 tax changes, improving transparency in tax expenditure)
- improve multinational transparency and compliance (information sharing and anti-treaty shopping provisions, country-by-country reporting in multinational enterprises, strengthening support for implementation of transfer pricing rules)
- measure progress in assistance to tax systems, share benchmarks and improve statistics on tax.

More recently the OECD has called for a global action plan on tax to address base erosion and profit shifting, and this has been adopted by the G20 at the St Petersburg summit. Current tax rules developed in the 1920s need to be updated to reflect a rapidly changing business environment brought about by globalisation involving transactions based on intellectual property rights and ICT. Corporations have argued for treaties to

deal with double taxation, but the bigger risk now is of double no-taxation (e.g. through Double Irish and Dutch Sandwich arrangements). Current tax systems also include an implicit bias towards establishing international companies rather than domestic ones. The OECD's action plan aims to deal with the tax problems associated with hybrid structures, digital products and services; intra-group financial transactions; transfer pricing (including the shifting of risks and intangibles); and anti-avoidance measures (e.g. controlled foreign company regimes, rules to prevent tax treaty abuse). This is potentially a large and substantial agenda in which developing countries need to have a voice, because it affects them substantially – e.g. a move towards territorial taxation (irrespective of whether it will be based on corporation, sales or wealth taxes) from world-wide taxation will have an impact on poor developing countries with a small economic base. Can this be done through a United Nations forum on tax issues?

The G8 and G20 have generated a momentum of their own on tax issues that has led to increased cooperation in four areas. We briefly consider the interest of developing countries in these areas:

1. *A new global standard for multilateral information exchange.* The US Foreign Account Tax Compliant Act, the European Union savings directive and bilateral agreements with overseas territories are bringing about a change, but there are significant capacity constraints that restrict benefits for developing countries from a central registry. Greater efforts are needed to ensure that a country such as Zambia can understand better what happens to copper profits when they are moved abroad. In many cases companies already collect country-by-country profits, but they are not compelled to report them in this way.
2. *Action plans to increase transparency in beneficial ownership* (including for 'trusts' popular with individuals in Anglo-Saxon tax legislation). This might help to address tax evasion and avoidance in developing countries if units are formed to deal with high net-worth individuals and in the presence of appropriate governance, so again this requires more efforts in developing countries. Increased transparency might also lead to an alternative model in small states that depend on offshore services.
3. *Reform of global tax rules through the G20 and OECD*, e.g. greater country-by-country company reporting on the tax paid in their countries of operation. There are risks and opportunities for developing countries associated with tax changes in the context of new business models with the increasing importance and relocation of intangible assets, risk management and online sales functions, all of which affect where profits are recorded and taxed. As G8 countries (including capital exporters such as the US and UK) move towards a territorial rather than a world-wide system of taxation, this is likely to intensify the tax competition among developing countries that are capital importers. 'Spillover' studies of changes in tax systems are needed, as previously emphasised in the G20 study.
4. *Improving the ability of developing countries to collect tax.* Top of the list might be technical assistance to address transfer pricing (in the narrow sense, used for commodities, but also in the broader sense, valuing intangible assets), but this needs to be seen in the context of work on other issues such as VAT, which is just as important for tax revenues.