

# **Public Financial Management: Revenue**

## **Unit 1 Introduction to Taxation**

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## Unit Overview

Unit 1 is concerned with different types of taxes and the criteria by which these taxes can be assessed, together with the main worldwide trends in sources of tax revenues for governments and the resultant main strategic issues that governments face in designing both tax policies and tax administrations. The unit serves as an introduction to most of the issues that you will study in more detail in the rest of the module.

The unit covers the following topics:

- criteria for assessing taxes
- classification of types of taxes
- trends in sources of government tax revenues
- comparisons between countries, and countries classified by income group
- the strategic issues that arise from these trends and comparisons
- factors influencing international tax policies and the main recent changes in international tax policy
- major issues in tax administration reform.

## Learning outcomes

When you have completed this unit and its readings, you will be able to:

- outline and discuss the main sources of government revenue
- identify strategic issues in financing public expenditure
- explain the basics of international tax policy and tax administration reform.



## Reading for Unit 1

Joseph Stiglitz and Jay Rosengard (2015) 'The five desirable characteristics of any tax system'. *Economics of the Public Sector*. 4th Edition. London and New York: WW Norton & Company.

Richard Bird (2013) 'Foreign advice and tax policy in developing countries'. Working Paper 13-07. Atlanta GA: Georgia State University International Centre for Public Policy.

Richard Bird (2010) 'Smart tax administration'. Washington DC: The World Bank.

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## 1.1 Introduction

All governments rely on taxation for the majority of the revenues that are used to finance public expenditure; the remaining part of their revenues comes from non-tax sources such as foreign aid, user charges, the sale of assets from privatisation, property income, and income from the ownership of natural resources and enterprises. Any shortfall of expenditure over all sources of revenues (a budget deficit) has to be financed by government borrowing.

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## 1.2 Criteria for Assessing Types of Taxes

How should we assess whether a particular type of tax is 'good' or 'bad'? This section suggests some possible criteria for evaluating taxes. We can then use these to judge whether a specific tax is effective in meeting these various criteria.

### 1.2.1 Adam Smith's canons of taxation

In his book, *The Wealth of Nations* (1776), Adam Smith proposed four canons (or principles) by which taxes could be assessed. These are fairness, certainty, convenience and efficiency.

#### Fairness

Assessing whether a tax is 'fair' is a subjective judgement. One view would be to say that a tax is fair if it treats individuals in similar circumstances in a similar manner (sometimes called 'horizontal equity'). An early approach to fairness was the *benefit principle*. This simply states that those who benefit from public spending should bear the burden of the tax that pays for that spending. Just as consumers pay a price for a product in the market that reflects the benefits derived from that product, so taxes would be akin to the 'price' charged for consuming various types of government-provided services. The problem with the application of this principle is that it is not always possible to trace the benefits of much of public spending to individuals. It may be possible for certain types of spending, such as on roads, where motorists can be taxed on their ownership of cars and the fuel they consume, to pay for the roads budget.

The benefit principle is really a case for *earmarked*, *ring-fenced* or *hypothecated* taxes where the revenues from a tax are earmarked to pay for a specific type of public expenditure, ideally where the two are linked, as in the case of motoring taxes and government spending on roads. The benefit principle can also be used to justify the imposition of user charges and fees such as tolls for the use of bridges and tunnels or for collecting household refuse at the local level, or television licence fees, as they are all examples where benefits can be closely linked to such charges. Those who support earmarked taxation do so because the link between taxation and government spending is more visible and, it is argued, may make such taxes more acceptable as taxpayers can see where

their money is going. Critics argue that hypothecated taxes are often regressive, may make it more difficult to control public spending and revenues may be variable.

A more common interpretation of fairness is that a tax should be related to *ability to pay*. This generally means that tax should be linked to an individual's income, so that higher income earners pay more than lower income earners (sometimes called 'vertical equity'). This approach ignores the expenditure side of the government's budget and thus there is no link between what an individual pays in tax and the amount of government-provided goods and services that they consume. The issue of equity and the tax system is explored in more detail in Unit 3.

### **Certainty**

The amount of tax to be paid ought to be known with certainty and not be arbitrary. The need (or, at least, the ideal) is to ensure that the individuals taxed understand the basis of the tax, that taxes are *transparent*. As tax systems become more complex, with a myriad of allowances, exemptions and rules, this transparency may be much dimmed.

Governments may try to 'fudge' the total amount of tax imposed, by cutting more visible taxes – for example, *income tax* – and increasing other, less visible taxes, such as *indirect taxes*. The argument is that governments could do this to increase their share of national resources by increasing taxes and spending. The only way to counter this tendency is to make the tax system more responsive by a constant and transparent discussion of tax proposals within the public policy process, including the legislature, the press etc. However, this process is not problem-free. If politicians perceive that tax-cutting proposals are popular, they may pursue these and cut public expenditures to keep the budget balanced, even if spending cuts damage sections of the population. Or, the tendency to cut taxes to gain political popularity can result in a rise in government borrowing, which can lead to severe fiscal crises.

### **Convenience**

A tax should be convenient in terms of timing and payment. An example of convenience relates to the payment of income tax. This can be collected at source – that is, when income is received, say from employment, or it could be levied retrospectively, once income is known for a financial year. For many taxpayers the former 'pay-as-you-earn' system is probably more convenient as it avoids building up an excessive tax liability. Such a system also has the advantage that the administrative costs of collection are quite low as employers bear most of these costs rather than the government. This process is called *withholding* in that companies withhold part of an employee's income as the tax deducted, which is then passed on to the government.

## Efficiency

Taxes ought to be inexpensive to administer and collect in relation to the revenue they raise; one way of judging this is from the perspective of 'administrative efficiency'. The administrative costs are the costs the government incurs in running the tax collection system. These would reflect the costs of employing staff, use of premises etc. A method for measuring the efficiency of types of taxes would be the ratio of these administrative costs of collection relative to the amount of revenue a tax raises. Broadly speaking, costs of collection are determined by the amount of work required to determine liability, the number of 'tax points' or tax payers from whom the tax has to be collected and, most importantly of all, the degree of complexity of the tax in question (James and Nobes, 2014).

This, however, would not identify the *compliance costs* of taxation. These are the costs imposed on taxpayers, such as the time they spend on making a tax return or employing a professional tax advisor. Such costs are difficult to measure. Evidence from developed countries suggests that these costs are higher than the administrative costs of collection (Sandford, 2000). It may be possible, at least with some types of tax, to shift these costs between the public and private sectors. For example, assessment can be undertaken either by the tax authorities or by taxpayers themselves through a system of 'self-assessment'. Compliance costs in the US are estimated at about 1.3% of GDP (total income of the US economy) according to the *Economist* magazine (2 January 2016).

However, *efficiency* has another meaning in economics; this other meaning refers to the efficiency of the allocation of resources in an economy. As you will see in Unit 2, to the extent that a market economy is 'efficient' in the allocation of resources, taxes will 'distort' this allocation because they change relative prices and thus the incentives facing those allocating resources, be they choices concerning what to buy or how much to save, or to work, or to accept certain types of work. For example, a tax imposed on the interest from people's savings is likely to reduce the incentive to save and thus 'distort' the preference for future consumption (as savings will generate more income in the future) as opposed to present consumption (not saving). Distortions are defined as the difference between post-tax decisions and pre-tax decisions. Anything that changes a pre-tax decision is a distortion. Distortions are 'corrective' when, and only when, they correct for market failure such as 'externalities' (explained below).

### 1.2.2 Musgrave's assignment of government functions

In his classic work on public finance, Richard Musgrave (1959) assigned three roles to government. These are *stabilisation*, *distribution* and *allocation*.

#### Stabilisation

The stabilisation function refers to the use of macro-economic policy (fiscal and monetary policies) to try to maintain a stable and smoothly running

economy and to seek to counter the economic cycle in order to reduce, to a reasonable minimum, fluctuations in output, unemployment and inflation. How taxes and fiscal policy can be used for this policy is covered in Unit 7. In this unit we are only concerned with the extent to which various taxes are suited to this function.

## Distribution

This refers to the distribution of income and wealth within an economy and the role of government in attempting to make this distribution more equitable. This obviously ties in with Smith's canon of fairness. Again, types of taxes can be assessed in relation to this distributive role of government.

## Allocation

Governments allocate resources through their spending decisions – what they decide to spend on defence, education etc. To finance this allocation, governments require a mechanism for transferring resources to itself – that is, taxation. A narrow economic case can be made that the only production activities<sup>1</sup> that governments should involve themselves in are for those goods and services the market would not supply. These are known as *public goods* in economics, but this term has a particular meaning and doesn't just mean goods and services supplied by the public sector.

The economic characteristics of public goods and services is that they are *non-rivalrous*, which means that if you consume the good or service, that does not prevent anyone else from also consuming the good (such as street lighting). And they are also *non-excludable*, which means no person can be excluded from consuming and benefiting from that good or service. An example of that is national defence. Once a defence system is provided, it is available to all. The private sector will not provide such goods since the private sector would not be able to charge a price to users in order to cover its costs and make a profit. This is because of the *free rider problem*. If people cannot be excluded from the benefits of such goods as national defence, they have an incentive to have a 'free ride' – that is, consume it without paying for it. The quantity of a good that a person is able to consume is not influenced by the amount the person pays for that good. So no one has an incentive to pay for the good. In the case of national defence, for example, the government cannot refuse to protect people who may not have paid taxes towards paying for defence.

Apart from the special case of public goods, governments may also choose to effect the allocation of resources because of '*spill-over effects*' or '*externalities*'. These are activities whose impacts are not only confined to those involved in producing or consuming them, but also affect others, or society

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<sup>1</sup> Governments can choose to finance and produce the supply of a good or service, or just choose to finance its provision and allow others providers (not-for-profits or the private sectors) to supply it through contracting-out.

in general, who not directly involved. The classic example is pollution. Those causing pollution have no incentive to take into account the costs they impose on third parties as a result of the pollution they produce. A mechanism that forces them to take these costs into account is a tax on such activities. This is the justification for a carbon tax to reduce carbon emissions, and is also used to justify taxes on the consumption of products such as alcohol and tobacco, which have harmful health effects and thus impose costs on government-financed health care services.

However, these latter taxes may be imposed primarily from a paternalistic view – that is, because these taxes deter the consumption of such products, this is beneficial to personal health, and the taxes are designed at least partly to encourage ‘good’ behaviour. These issues are explored in more detail in Unit 3.

Governments may also choose to supply other goods and services, such as education or health care, not because they are public goods or that they have external impacts (although they may have) but for reasons of equity or on other grounds. Some of these may be financed through user charges – that is, the benefit principle – as well as from tax revenues.


It should be borne in mind that these various criteria for judging taxes might well conflict with each other so that in achieving one aim (say, greater equity), there may be a detrimental effect on another, such as economic efficiency. Policy makers may therefore have to trade off objectives against each other – trading a little less efficiency for a little more equity, and so on.



### Reading 1.1

To supplement the above analysis, you should now read the extract, ‘The five desirable characteristics of any tax system’ by Joseph Stiglitz and Jay Rosengard. Stiglitz is a professor at Columbia University in the United States of America, a former Chief Economist at the World Bank, and he is a Nobel Laureate in Economics.

Stiglitz and Rosengard define five desirable characteristics of a tax system as *economic efficiency, administrative simplicity, flexibility, transparent political responsibility* and *fairness*.

 As you read this extract, make sure that you have made summary notes on the issues raised by the authors in addition to those already mentioned in the preceding section. A considerable part of the reading is concerned with the distortionary effects of taxes, in the sense that taxes result in decisions to avoid such taxes. Most of the examples in the reading of how taxes can distort choices are based on US tax laws. Try to think of similar distortions in your own country.

Note also the reference to ‘corrective taxation’ in situations of market failure such as smoking, and air pollution causing global warming. Such taxes may result in a ‘double dividend’ whereby they correct a market failure, and the revenue from such a tax can be used to reduce other, distortionary, taxes. Both result in an improvement in resource allocation. There is further analysis of these taxes in Unit 3.

Stiglitz & Rosengard (2015) ‘The five desirable characteristics of any tax system’. *The Economics of the Public Sector*.

Another issue raised in the reading is that of corruption and the tax system. Note their comments on how tax systems can be more or less resistant to corruption and the effects of the enforcement of tax laws.

Finally take note of the alternative tax bases that are discussed in the reading, namely income, consumption and lifetime income.

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Obviously there is some overlap between the criteria used by Smith, Musgrave and Stiglitz and Rosengard especially in relation to economic efficiency and fairness.

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## 1.3 Types of Tax

You will be familiar from everyday experience with the major types of taxes, and their characteristics. Our objective here is to provide a point of reference for the following discussion, by posing a question.

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### Exercise 1.1

- List the five most important taxes that you can think of in your own country/work context.
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There are many ways in which one can distinguish different types of taxes. The most common type of distinction is by the *tax base* – that is, the activity or entity on which the tax is imposed.

The tax base can be the *economic agent* – the economic entity (individual, firm etc.) taxed – and/or *economic activities* like production, consumption, trade, transfers etc. The most common tax bases include income, profits, wealth and capital gains, payrolls, property, and goods and services expenditures.

The terms *direct* and *indirect taxes* relate to who ultimately bears the burden of the tax. Direct taxes are assessed on and collected from individuals or companies who are intended to bear it, such as income tax and profits tax. Indirect taxes are those taxes that are levied on a taxpayer and for which the burden of the tax can be passed on to some extent. For example, Value Added Tax (VAT) is levied on firms at each stage of production and distribution. This tax will cause the price to the final consumer to rise; therefore, this is actually a tax on consumers that is collected from businesses (James and Nobes, 2014).

### 1.3.1 Direct taxes

The major types of direct taxes are *personal income taxes* levied on individuals' income, and *corporate income taxes* (or *profit taxes*) levied on a company's profits.

Personal income tax (PIT) may also be designed to distinguish between incomes from different activities by the same economic agent – such as income



from wages, interest, dividends etc. Thus, in many countries, interest on savings income may be taxed differently from other income. However, you must remember that all such taxes are, generically, personal income taxes.

There are three other important types of direct taxation:

- *taxes on assets*, such as taxes on wealth, on land, on property
- *taxes on transfers between individuals*, including taxes on inheritance and on gifts – the tax is imposed only when income or wealth is transferred from one individual to another
- *head tax, poll tax or lump-sum tax* are taxes imposed on an economic agent on a per-head basis, rather than on some economic attribute of the individual (income, wealth, gifts received etc.); while this form of taxation is rare, it was imposed in the UK in the 1980s as a basis for a local tax to finance local government activities. Such a tax is an important benchmark in the theory of taxation, as explained in Unit 2.

Generally, taxes on income and profits tend to be *progressive* – that is, richer people pay proportionately more of their income in such taxes than poorer people, and thus are ‘fairer’ in that they are more closely related to the ability to pay as judged by a person’s income level. This is achieved through a system of tax allowances that take lower income earners out of paying income tax, together with higher rates of tax on higher levels of income. The issue of equity and the tax system is further analysed in Unit 3.

These allowances, plus other deductions and tax breaks, do increase the complexity of the direct tax system and thus add substantially to the costs of collection, both administrative and in terms of compliance. Moreover, to the extent that these allowances and rates are determined in money terms, and do not adjust for either inflation or real changes in income, this means that people end up paying more tax. This is called ‘*fiscal drag*’ and is an example of a hidden increase in taxation referred to earlier. Governments may fail to adjust the tax system for the effects of inflation in order to increase their tax revenues. As money incomes rise, people pay more tax on that increase, regardless of whether they are better-off in real terms. To remedy this, governments need to either automatically link the thresholds to the rate of inflation, or raise them annually by the preceding year’s inflation.

The provision of allowances, exemptions and other types of tax breaks means that governments forgo revenues. For example, in many developed countries, people who pay into a pension scheme for their retirement can do so before deductions for income tax. This obviously creates an incentive to save more than might otherwise be the case. However, rather than provide a cash subsidy, the government is foregoing tax revenues on these contributions. These exemptions are sometimes called *tax expenditures*. In total they may add up to a substantial amount and, other things being equal, require tax rates to be higher to generate an equivalent amount of revenue than would be the case without the exemption. However, these tax breaks are not usually listed and thus are hidden to some degree.

Some countries, notably Russia and some others in Eastern Europe, have moved to a system of *flat taxes*. Broadly, such a system involves removing most of the allowances, exemptions and tax breaks associated with personal income tax and reducing the income tax rate to a lower and single rate. This may have benefits for the administrative efficiency of the tax system and for the efficiency of the allocation of resources, but its main drawback is that it is a *regressive* tax – that is, those on lower incomes pay proportionately more of their income in tax than those on higher incomes. These taxes are analysed in Unit 5.

Direct and progressive taxation may have detrimental effects on economic efficiency since such taxes impose higher marginal rates of tax as incomes rise. The marginal rate of tax is the rate of tax you pay on your next increment of income. These rates may have disincentive effects where individuals decide it is not worth working additional hours if too much of the resultant earnings go in income tax. They may encourage economic agents to investigate methods of *tax avoidance* (legal means of reducing one's tax liability) as well as *tax evasion* (illegal methods of reducing tax liability). An example of the latter is the *informal/shadow economy* where transactions are conducted in cash or in kind and thus go unreported to the tax authorities.

Progressive taxes have the additional benefit that since they vary with income, in a recession, as people earn less, the revenues from such taxes tend to fall and this helps to offset any fall in income and maintain spending. Such taxes are known as part of a system of *automatic stabilisers*. They automatically change in a counter-cyclical manner. Thus the impact of the recession is not as heavy on post-tax incomes as on pre-tax incomes. While this may work in some countries, the impact may be very different in others. For example, a recession in a poor developing economy may lead to a fall in tax revenue so that it becomes difficult to maintain spending on essential services like schools and hospitals, thereby making people worse off. The use of tax as a stabilisation instrument is further considered in Unit 7.

### 1.3.2 Indirect taxes

Indirect taxes can be divided into:

- taxes imposed on domestic goods and services
- taxes imposed on goods and services that form part of a country's international trade.

#### Taxes imposed on domestic goods and services

These include all taxes imposed on goods and services produced and sold within a country. There are many such taxes, of which the most common is the *sales tax* imposed on all retail sales of goods and services. Another common form of tax is an *excise tax* or *duty* imposed on the manufacturer of a good or service such as tobacco, alcohol and petrol. The difference between the two is the point at which the tax is collected. A sales tax is usually collected at the retail level; an excise tax is often collected at the wholesale level, as this reduces the number of tax points for the collection of the tax.

While sales taxes and excise taxes have long been levied, their importance has grown as countries have developed economically, as more economic activity is conducted through the market and the range of goods and services produced has become more diverse.

There has been a trend to replace sales taxes and excise taxes with Value Added Tax (VAT) in many countries. This is imposed on the *value added* – the difference between the value of the output and the value of the inputs used by the company (including labour and capital) to produce the output. This trend has arisen because VAT has a much broader tax base, covering most economic activities and is thus less ‘distortionary’ at any given rate of VAT than a sales tax, which is only levied on consumer retail spending, or excise duties, which are only levied on particular products. VAT has higher administrative costs of collection because it is levied on every business at each stage of production and collection whereas excise duties are cheaper because they are collected at one stage in the process, at the production point.

The impacts of indirect taxes on the amount of revenue raised and the level of consumption of the products being taxed depend on the sensitivity (*elasticity*) of demand to the rise in price caused by the tax. The more sensitive buyers are to price increases, the bigger their reduction in purchases and the lower the amount of revenue that will be raised. This aspect is further explored in Units 2 and 3.

Indirect taxes would appear to be less suited to improving equity through the tax system since they are typically levied at a single rate, and thus are *proportional*. Although such taxes take the same proportion from everyone, this proportion represents a larger absolute amount for a poorer person. Flat rate indirect taxes are *regressive* since the amount paid in tax represents a declining proportion of income the higher your level of income. This can be offset to some degree either through exemptions, such as on basic necessities and/or through levying different rates, so that higher rates are levied on products that the better off are more likely to purchase – that is, so-called ‘luxury goods’. Proportional indirect taxes do keep up with both the economic cycle, as the tax taken will vary with the volume of spending, and also with inflation as these taxes take a stated proportion of the spending on a particular activity, including any increase purely due to price inflation.

Indirect taxes are well suited to dealing with the issue of ‘externalities’, discussed earlier, such as activities causing pollution, as they can be levied on the activity concerned.

### **Taxes imposed on international trade**

These taxes are imposed on domestic goods and services that are either produced in foreign countries and imported or sold to other countries (exported). Taxes on the exports and imports of a country are called *customs tariffs and duties*. Historically, these were extremely important in countries active in international trade. Nowadays these are much less important for developed countries, and while they continue to be significant in some

developing countries, they too are diminishing in importance. Taxes imposed on imports are frequently imposed to provide protection for domestic producers and thereby maintain employment in these industries.

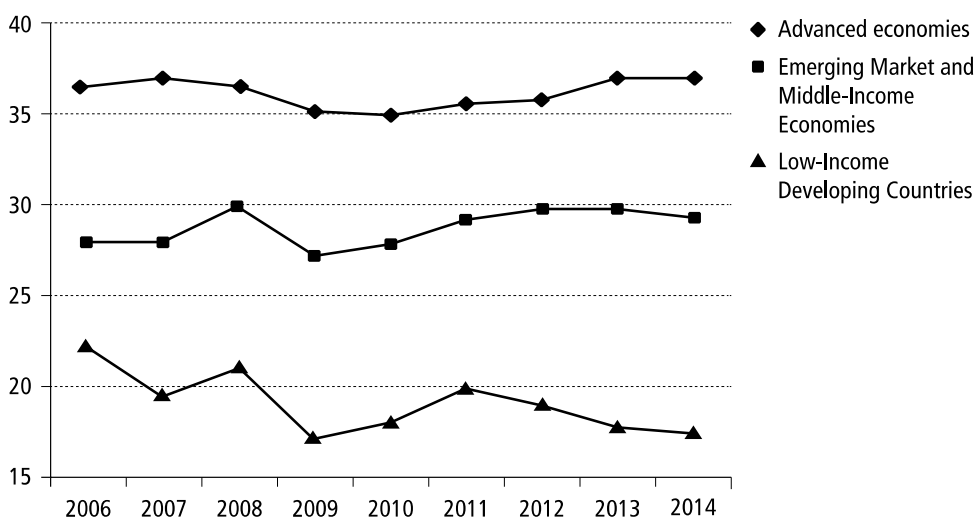
## 1.4 Trends in Taxation

Tax revenue is collected from various tax bases including income and corporate profits, social security contributions and payroll taxes, taxes levied on goods and services, taxes on the ownership and transfer of property. There are also non-tax sources of revenues, which include licence payments for mineral extraction, profits on state-owned enterprises, rents of land and buildings and (depending on how they are accounted for) sales of state enterprises.

Total tax revenue as a percentage of GDP (a measure of a country's national income) indicates the share of a country's output that is collected by the government through taxes. It can be regarded as one measure of the degree to which the government controls the economy's resources.

As you can see from Figure 1.1, tax revenues as a proportion of GDP vary significantly with the level of GDP in a country, generally in a positive relationship in that, as a country's income (GDP) rises, so does the share of GDP accounted for by tax revenues. Generally the low-income developing countries have the lowest percentage and this has been averaged about 17% of GDP in recent years (as an average, there is considerable dispersion around this mean). Emerging and middle-income economies have a higher ratio, around 27%, while the advanced economies have a ratio of about 36% of GDP. For the advanced countries, according to the OECD (n.d. accessed 2015) this average covers a wide variation, ranging from the US at 25.4% at the lower end of the range and France at 45% of GDP at the upper range.

**Figure 1.1 Tax Revenues as a % of GDP 2006–14**



Source: IMF (2015)

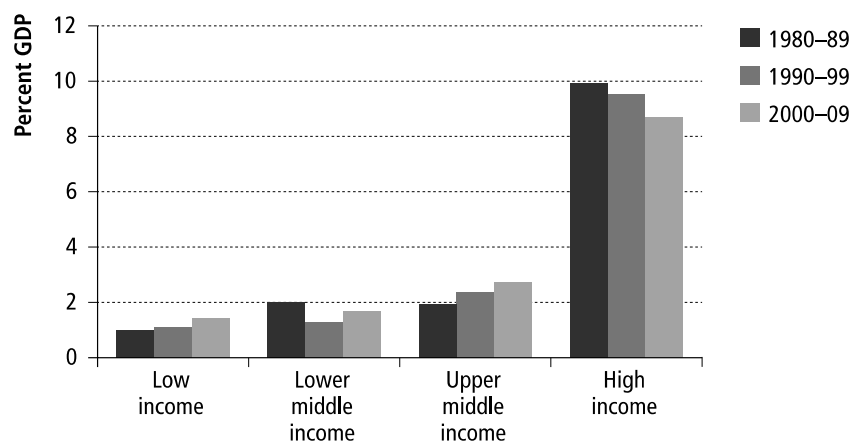
One of the main reasons for the much lower tax to GDP ratio in low income countries is that their incomes are low! In poor countries most people do not have sufficient income or consumption to pay taxes. In addition, such economies have a low taxable base due to a large traditional agricultural sector, much of it subsistence or self-sufficient production, plus a significant ‘informal (shadow) sector’, and in both cases transactions are often not recorded for tax purposes. The average size of these informal sectors is estimated to be about 40% of total output (Schneider *et al.* 2010).

These informal sectors feature many small, unofficial traders that may not be efficiently brought into the tax net due to limited revenue potential and high costs of collection. In addition, such countries face problems of compliance in collecting taxes because of ineffective tax administrations due to archaic tax laws, poorly paid and trained public officials, poor management and out-dated technology and a general lack of resources. Compliance costs are high in the low-income countries involving lengthy processes and frequent tax payments (Doing Business, 2012). Other causes of low tax revenues include corruption and high levels of tax evasion and avoidance. These countries need to increase their tax-GDP proportions in order to reduce their dependence on foreign aid (see Unit 8), reduce poverty and increase their level of economic development.

#### 1.4.1 Taxes on income, profits and capital gains

Direct taxes provide a much higher proportion of tax revenues in rich countries than in poor ones, although there are wide variations. The average proportion of GDP raised in revenues from Personal Income Taxes (PIT) for low-income, lower- and upper-middle income and high-income countries over successive decades since 1980 is shown in Figure 1.2. Direct taxes are less significant for poorer countries where a large proportion of the population has little or no taxable cash income and a significant informal sector.

**Figure 1.2 PIT Revenues as a % of GDP 1980–2009**



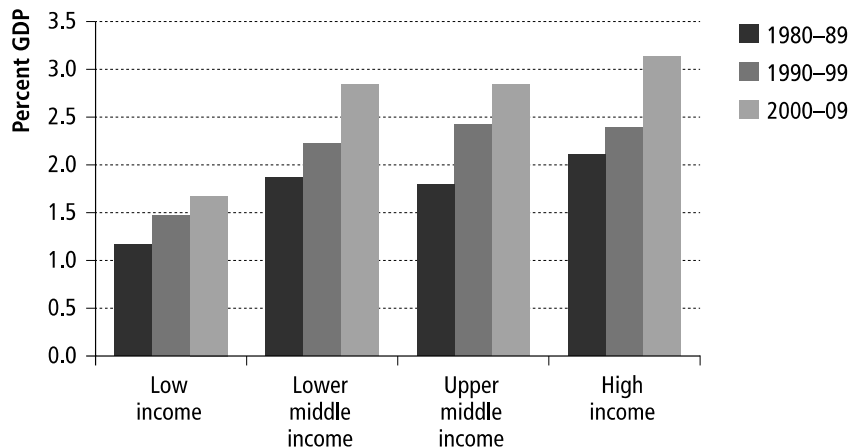
Source: IMF (2011)

Revenues from PIT as a share of GDP have been falling in high-income countries over the period shown in Figure 1.2, perhaps due to a trend to

lower marginal rates (MRT) of PIT reflecting a concern with the incentive effects of high MRT. PIT revenues as a share of GDP have been fairly flat in low-income and lower-middle-income countries.

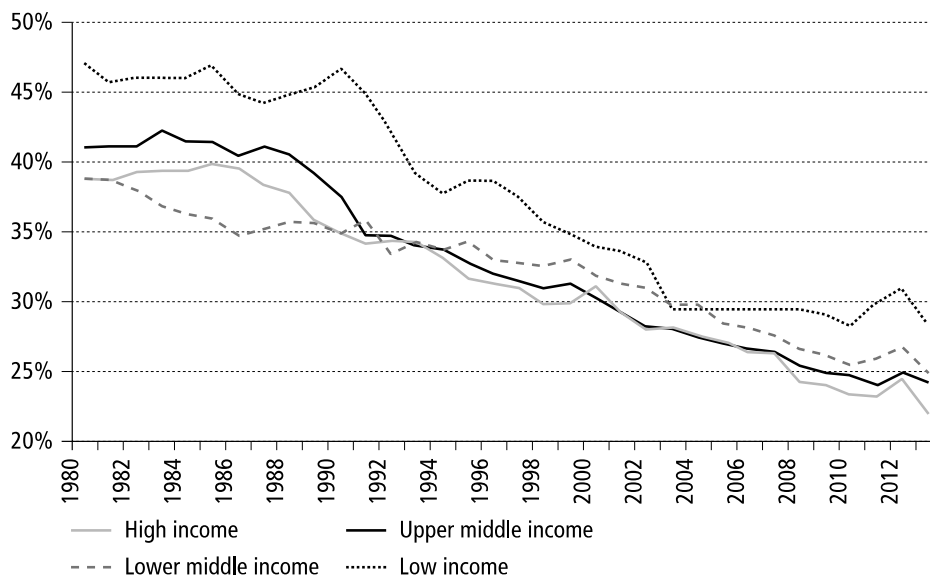
Corporate Income Taxes (CIT) are levied primarily on company profits and capital gains. Figure 1.3 shows the revenues from CIT as a proportion of GDP. Revenues have been robust in all four categories of countries. Although there is a clear trend to a higher ratio as a country's level of income rises, the differences in ratios are not as great as those for PIT.

**Figure 1.3 Corporate Income Tax (CIT) Revenues as a % of GDP 1980–2009**



Source: IMF (2011)

The buoyancy of CIT revenues is surprising given the downward trend in CIT rates as shown in Figure 1.4. To compensate for these lower rates, countries may have widened the tax base for CIT by reducing deductions and exemptions (Norregaard and Khan, 2007). The lowering of CIT rates has primarily been due to many countries seeking to attract foreign direct investment (FDI) by offering *tax incentives* such as lower CIT rates and/or by providing other tax-based incentives such as tax holidays, exemptions from tax for types of investment spending and other measures. To the extent that such a policy is successful and diverts investment from other countries then these other countries are likely to reduce their rates as well, a process called *tax competition* (see Unit 5).

**Figure 1.4 Corporate Income Tax (CIT) Rates 1980–2013**

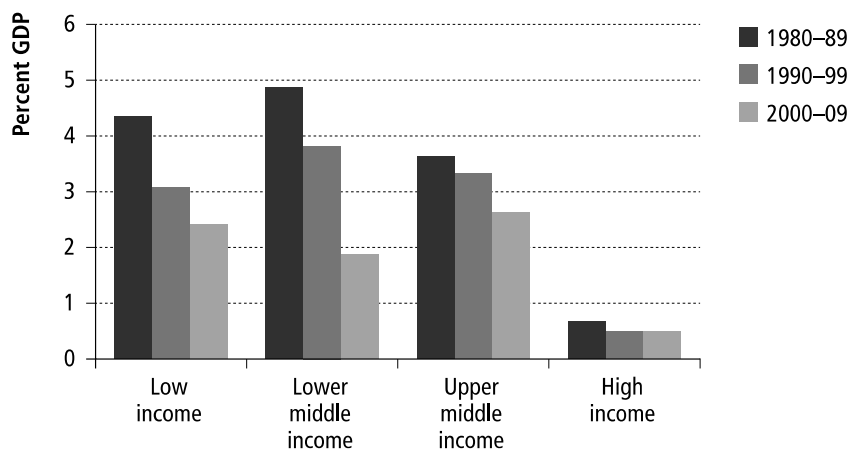
Source: IMF (2014)

Obviously, such a policy threatens the amount of revenue raised by CIT. There has also been the introduction of *flat taxes* (a single rate income tax, both personal and corporate), which partly reflects efficiency concerns arising from high marginal rates of PIT and CIT, especially in Eastern Europe and Russia. It is possible that despite the cuts in rates, the revenue effects of a flat tax might be increased through higher compliance and an improvement in incentives on economic growth (see Unit 5).

Both developed and developing countries face challenges in taxing multinational companies (MNCs), which are able to avoid tax by shifting profits from higher tax jurisdictions to low tax jurisdictions precisely because they operate in many different countries (see Unit 5). Developing countries collect most of their tax revenue from a narrow tax base compared with developed countries. This dependence on a few taxpayers, often MNCs, implies that the revenue losses from such tax avoidance and tax evasion can be considerable. This can also be aggravated by MNCs taking advantage of a lack of adequate tax administrative capacity in poorer countries (IMF, 2011). However, this problem of multinational companies' tax avoidance is not confined to developing countries, and developed countries also experience problems with tax avoidance – by MNCs such as MacDonald's, Starbucks and Amazon.

### 1.4.1 Taxes on international trade

Taxes on international trade include tariffs, customs duties and other border taxes on imports and exports. The proportion of revenues from trade taxes in relation to GDP is shown in Figure 1.5. It is clear that trade tax receipts are more important as a share of GDP in the low- and lower-middle-income groups; that is, poorer countries generally rely more on border taxes than do richer countries.

**Figure 1.5 Trade Tax Receipts as a % of GDP, 1980–2009**

Source: IMF (2011)

Trade taxes are relatively easy to administer for the poorer countries as compared with PIT and CIT. They can be collected at the point of importing or exporting, such as airports, harbours etc. The other important feature to note is that trade tax receipts have been declining as a share of GDP, for all groups of countries shown since 1980.

However import tariffs tend to be bad for economic growth (Keen, 2013) as they shield domestic firms from international competition. A major cause of the decline in trade tax revenues has been the global policies designed to reduce tariff barriers to international trade as conducted through the World Trade Organisation (WTO). Another impetus has been from the International Monetary Fund (IMF) and World Bank and other sources whose standard policy recommendation for developing countries, over many decades, has been trade-liberalisation, with the reduction in revenues being offset by increasing domestic consumption taxes, mostly VAT (Martinez-Vazquez *et al.* 2010).

As the worldwide tendency towards freer trade continues, governments that are more dependent on taxes on trade obviously need to find alternative sources of revenues. Clearly, these governments have the biggest task of finding alternative revenue sources, but they also often have the fewest options.

### 1.4.3 Social security contributions

Social security contributions (called National Insurance Contributions: NICs, in the UK) are compulsory payments paid to governments that confer entitlement to receive a (contingent) future social benefit. They include unemployment insurance benefits, accident, injury and sickness benefits, old-age, disability and survivors' pensions, family allowances, reimbursements for medical and hospital expenses or provision of hospital or medical services.

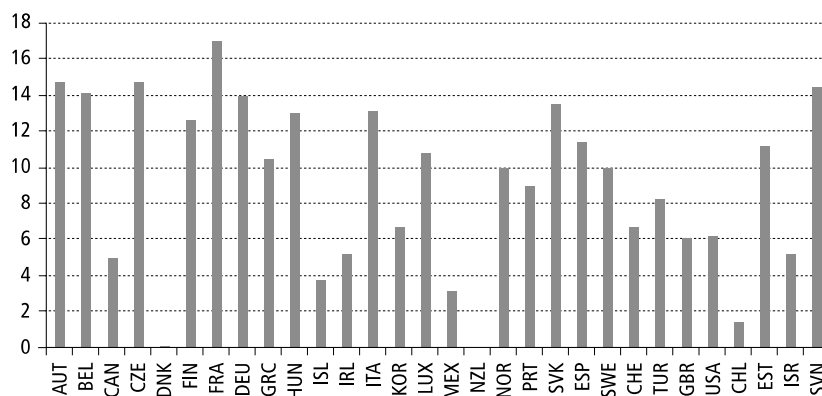
Contributions may be levied on both employees and employers. Such payments are usually earmarked to finance social benefits (OECD, n.d. b



accessed 2016). Because such payments confer a personalised benefit, they are not, strictly speaking, taxes. Government financial statistics on taxation often show these payments separately. Social Security contributions are more akin to ‘user charges’ or earmarked taxes. However, because the link between payments and contributions is often far from actuarially fair (as they would be in an insurance policy) and the prospective benefits so remote, their effect is likely to be very similar to a tax (De Mooij and Keen, 2014).

Figure 1.6 shows social security contributions as a % of GDP for the OECD countries in 2014.

**Figure 1.6 Social Security Contributions as % of GDP in OECD Countries 2014**



Source: OECD (n.d. b accessed 2016)

The average percentage for this group, mainly developed countries, is 9.1% of GDP. Social security contributions are primarily confined to high-income countries, many of which have large welfare programmes that provide income support for the unemployed, poor, ill and elderly. These welfare programmes have the characteristic that the spending on them is counter-cyclical; that is, when an economy moves into recession and income levels fall and unemployment rises, the spending on these programmes automatically rises and this helps to offset the recession. Such a system is known as an *automatic stabiliser*. You will learn more about this in Unit 7.

Where social security contributions are paid by employers, they may be considered as a ‘payroll’ tax – that is, a tax on employees. Payroll taxes are defined as taxes paid by employers, employees or the self-employed, either as a proportion of payroll or as a fixed amount per person, and that do not confer entitlement to social benefits. Examples of such taxes include:

- United Kingdom national insurance surcharge (introduced in 1977)
- Swedish payroll tax (1969–79)
- Austrian Contribution to the Family Burden Equalisation Fund and Community Tax (OECD, n.d. b accessed 2016).

Payroll taxes may deter companies from employing people since they raise the costs of employment. The high social security contribution rates prevalent in Europe and the USA have an effect on company and national competitiveness and on those countries’ unemployment rates. This is called

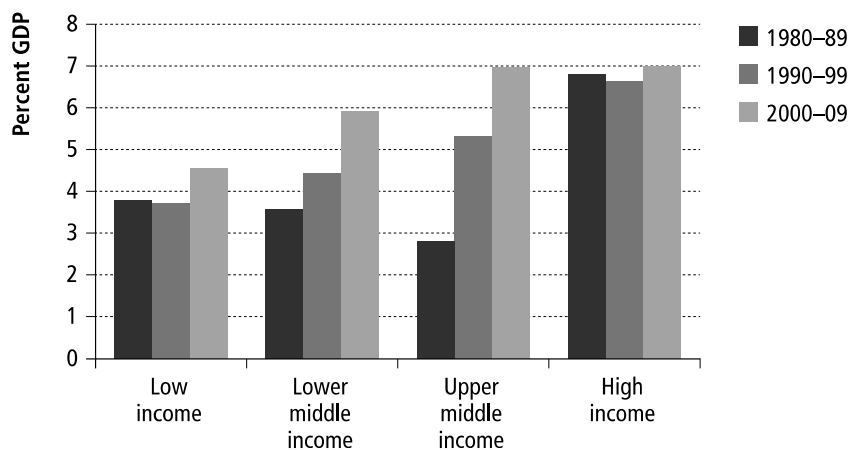
the tax 'wedge', in that these taxes drive a wedge between what the employer has to pay to hire labour, and what the employee receives, and this may deter employment. This is mainly a concern in developed countries. This tax wedge is an example of the distortionary effect of taxation. There is more on this in Unit 2.

#### 1.4.4 Taxes on domestic goods and services

Taxes on domestic goods and services include *sales taxes, value added taxes (VAT) and excise duties or taxes* which levied on domestic spending. They are also called *consumption taxes* as they impact on domestic consumer spending. Figure 1.7 below shows VAT revenues as a % of GDP groups of countries sorted by income levels over the period 1980–2009. These show an increase in revenues from VAT for all groups. The relative differences in the proportion of GDP accounted for by VAT revenues has narrowed over this period and reflects the growth in the use of VAT in the low- and lower-middle-income groups. These countries are replacing the reduction in revenues from taxes on trade with taxes levied on domestic goods and services such as VAT.

Some excise taxes, especially on motoring and alcohol, are used to correct for externalities such as traffic congestion, pollution and health costs (see Unit 3). Where such taxes are used to improve air quality and reduce global warming, they are often called environmental or 'green' or 'carbon' taxes.

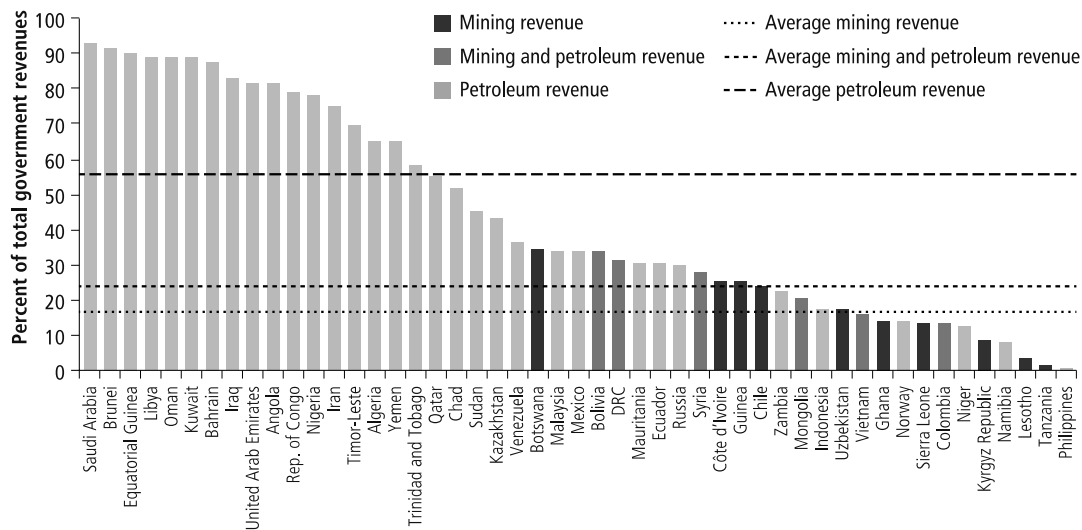
**Figure 1.7 VAT revenues as a % of GDP 1980–2009**



Source: IMF (2011)

#### 1.4.5 Revenues from natural resources

Countries that have large reserves of natural resources such as oil and minerals rely heavily on revenues from these resources to finance government spending. These revenues derive from a mix of auctioning exploration and exploitation rights, profit shares, royalties, taxes and other payments. Consequently, such resource rich countries tend to raise less revenue from other tax sources. Figure 1.8 shows receipts from natural resources as a percentage of government revenues in 2011.

**Figure 1.8 Natural Resources Revenues as % of Total Government Revenues**

Source: IMF (2014)

Developing countries can use these receipts to finance current and investment spending and/or by establishing funds (known as Sovereign Wealth Funds), so they can place some of these revenues offshore. As these natural resources are finite, such funds will provide a stream of income only until the natural resources have been exhausted. Smaller nations such as the Gulf oil producers may find it difficult to absorb all their current oil revenues on domestic uses given their small size. Note that in Figure 1.8, such countries as Oman, Kuwait and Bahrain have such revenues of between 80–90% of government revenues. The extent to which natural resource revenues goes into domestic investment spending on, for example, infrastructure and human capital, such as education and health care (as opposed to current consumption spending) will be an important determinant of their future economic growth.

Volatility of revenues due to fluctuations in commodity prices is a problem for these countries. For example, oil prices rose to a peak of US\$100 per barrel in 2011 and by the end of 2015 had slumped to US\$36. Therefore their revenues fluctuate considerably in line with these volatile commodity prices. Thus it might be prudent to hold some of current receipts in boom periods in a *revenue stabilisation fund* in order to smooth the flow of revenue (see Unit 7 on this), which can then be used to support spending at times of low commodity prices.

In addition, the abundance of such revenues may also exasperate corruption and governance issues. Paul Collier (2007) has pointed out that there may be a 'natural resources trap' or 'curse' due to the export of these resources driving up their exchange rates, making the rest of the economy uncompetitive.

#### 1.4.6 Tax Expenditures

Governments frequently provide tax breaks on certain activities. For example, contributions to a pension fund may be tax free or incur a lower rate of income tax than the standard rate; the interest on a loan to buy a house

might be tax deductible; capital gains from the sale of a person's only or main residence may be exempt from tax; corporate spending on R & D or investment spending may be offset against corporate taxation.

Clearly, governments grant such tax breaks to encourage particular activities. These incentives don't cost anything in terms of the government spending money on them but they do mean that tax revenues are sacrificed. That is, the opportunity cost of these allowances is the loss of tax revenues. These are called *tax expenditures*. Their cost is difficult to estimate because they depend on the marginal rate of tax of the taxpayers concerned. They also add to the complexity of the tax system.

#### 1.4.6 Strategic issues apparent from these trends

Clearly there is a wide variation in the sources of revenue for governments. Financing strategies required therefore also vary, and this module will cover the major issues. From this preliminary perusal of tax revenues the following issues emerge:

- *The replacement of declining taxes on trade*, except in the very poorest countries. One implication of this is that tax administration has to improve: border taxes are obviously collected at border crossings, ports and airports and are relatively easy to manage. All other taxes require a more pervasive administration and a more complex system of management.
- *The sustainability of social security funding*. Demographic trends in Europe, USA and Japan have led to questions about the sustainability of social security systems as their proportion of the populations not in work increases. In addition, since social security contributions are in effect a 'payroll tax', they may affect the competitiveness of the richer countries.
- *Where there is a tendency to switch from direct to indirect taxes*, the effect is likely to be an increase in inequalities. Where basic commodities are exempt from taxation the impact on people on very low incomes is minimised, but generally taxes on consumption are proportional and therefore not progressive. Governments whose members believe that one function of government is to effect the distribution of post-tax incomes have to find alternative ways of achieving this.
- *Reform efforts in the poorest countries promoted by bodies such as the World Bank and the International Monetary Fund* are, in part, concerned with improving the overall level of taxes raised. Sometimes a figure of 20% of GDP is used as a benchmark. The trends indicated here show that the poorer the country the harder such levels are to achieve, although as you will see in the next reading, some are sceptical about this.

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#### Exercise 1.2

Try to collect some data on taxation in your own country (or the country where you currently live). You can do this by either accessing the website of your selected country's

finance or treasury department, or by accessing the website of organisations such as the OECD, IMF or World Bank which have this type of data for many different countries.

- Use the data to see which kinds of taxes contribute to public revenues and what the recent trends are. You can share your results on the VLE.

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## 1.5 Tax Policy and Tax Administration

Tax policy is concerned with the types of taxes that governments choose to impose and the structure of those taxes in terms of rates, allowances and the like.

### 1.5.1 Tax policy

Your first reading for this section is 'Foreign Advice and Tax Policy in Developing Countries' written by Professor Richard Bird. Since the author is concerned with tax policy in developing countries, it emphasises development tax policy. The other main theme of the paper is the type of tax reforms western economists have been recommending to developing countries. The initial part of the paper looks back at this nature of this advice and how it has evolved.

'Development Tax Model 1.0' (Figure 1, pages 5–7) was the basis of recommendations in the 1960s and 1970s. At the heart of 'good' tax policy was a broad-based and progressive income tax (both personal and corporate), not dissimilar to the situation in these economists' home countries at that time. Bird notes that such advice did not do much to increase the tax-GDP ratios in developing countries. However, in the 1970s and 1980s, many countries introduced a VAT system and lowered their income tax rates, both of which help to reduce resource misallocation.

'Development Tax Model 2.0' (Figure 2, page 7) reflected, according to Bird, the 'Washington Consensus' of the 1980s with its emphasis on freer markets and trade. The main revenue raised now became VAT, preferably with a single rate and a broad base. Other elements included lower import tariffs, lower rates of income tax together with a broad base, and excise duties for revenue purposes and for externality pricing. Sub-national government taxes, especially a property tax, become more significant. Bird is sceptical that this model was any more influential than its predecessor and that where some of these tax policies were adopted, this was due to other factors rather than the advice of economists.


There follows a lengthy analysis of tax issues, especially on the basis underlying political, economic and administrative realities that have to change before taxes can be changed. Bird then outlines his 'Development Tax Model 3.0' (Figure 3, page 28). This is less prescriptive than its predecessors; Bird calls it 'more an approach than a model'. The main revenue raisers recommended are VAT and personal income tax. Other significant taxes are excise taxes (including environmental taxes), property taxes as a source of revenue

for sub-national governments and payroll taxes (including social security contributions).



### Reading 1.2

Study Professor Bird's article 'Foreign advice and tax policy in developing countries' now.

 As you read this paper, make sure that you make summary notes on the main factors influencing tax policy in developing countries.

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Bird (2013) 'Foreign advice and tax policy in developing countries'. Working Paper from the International Center for Public Policy, Georgia State University.

## 1.5.2 Tax administration

In addition to basic questions about what sort of taxation system is desirable, there is also the related issue of tax administration, which is concerned with the implementation of tax policy. Tax policy reform and tax administration are strongly linked. When an existing tax is changed, or a new tax is introduced, both taxpayers and government authorities face costs in adapting to the new system.

Tax administration is concerned with the effectiveness and efficiency of tax policy. How a tax policy is administered affects the amount of revenue that it generates and the costs of collecting that revenue.

There is no point in designing an optimal tax regime if the taxes are not collected because of inadequate tax administration. One authority states 'it is misguided to reform the tax structure while largely ignoring tax administration' (Bird, 1989). The theoretical choice of the best tax system must be informed by a practical appraisal of what can be collected.

A key factor affecting both feasible tax policies and tax administration is the level of a country's development. As we have seen, the proportion of marketed activities – that is, output sold in the market – is an important aspect of the collection of tax revenues. For developing countries, an additional issue is their level of administrative capacity to handle the process of tax collection.

Tax administration is also at the heart of other aspects of the economy and society – open, honest, efficient tax collection generates a better society than secretive, corrupt and ineffective tax collection.


The next reading, 'Smart Tax Administration', is again by Richard Bird, a prolific academic author in the area of taxation. This summary of best practice in tax administration is largely written from the perspective of developing countries. To begin with, Bird stresses the importance of tax administration before outlining its main tasks of facilitating and enforcing compliance, and improving governance. The final part of the paper draws lessons for tax administration from international experience. One of these is the reorganisation of tax administration into an independent revenue authority which may, as a result, be freed from some of the civil service restrictions on hiring and pay.



### Reading 1.3

Bird (2010) 'Smart tax administration'.

Study Bird's paper on tax administration now.

 As you read this paper, make sure that your notes demonstrate an overall grasp of the tasks of tax administration and some of the approaches to reforms. This will provide an important balancing element to some of the policy discussion you will encounter in the rest of the module.

There is more on tax administration in Unit 4.

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## 1.6 Conclusion

In the next unit you will turn to the economic theoretical underpinnings of the search for optimal taxation. It is important to understand the ideas of optimal taxation. The pursuit of the *possible* with no notion of the *optimal* would be pure pragmatism. For governments at local and national level, the design of the tax system and the way in which revenues are raised are some of the most important decisions. While there are no perfect ways of taxing and raising revenues, there are some theoretical approaches, especially from welfare economics, that can illuminate the process.

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