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Taxation, Debt and the Public Finances

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Abstract: This paper (which is a draft of a chapter in *The Economy of Ireland*, ed. John O'Hagan) examines the broad features of taxation and public expenditure in Ireland. It reviews the rationale for taxation and examines the desirable features of a tax system. It also examines public expenditure trends in Ireland against the background of the Maastricht criteria and the Stability and Growth Pact. Finally it considers the likely evolution of the public debt and questions what (if any) is the optimal size of government involvement in the economy.

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Taxation, Debt and the Public Finances*

1. INTRODUCTION

This chapter examines the issues of taxation, debt and the public finances. It complements the topics covered in Chapter 3 and also serves as a useful backdrop to some of the sectoral issues addressed in Part IV. In section 2 of the chapter the broad features of the Irish tax system are discussed and compared with other OECD countries. Section 3 examines the rationale for taxation and discuss what are the desirable features of a tax system. It will be seen that in some cases there may be trade-offs between different optimal features of the tax system and also that policy-makers are frequently the prisoners of history. The tax changes that can feasibly be implemented may be quite different from the sort of tax system designed from scratch. Using this as a framework the base for taxation in Ireland is discussed in section 4, noting the distinction between the nominal and effective incidence of taxation.

Section 5 of the chapter moves on to discuss the issue of the public finances. This topic dominated macroeconomic discussion in the 1980s, but has since received less attention. This is probably due to the combination of two factors: first, as long as the public finances are not in crisis, they tend to attract little interest. Secondly, since Ireland now participates in monetary union, the criteria laid down in the Maastricht treaty and the subsequent Stability and Growth Pact, essentially govern the extent to which the public finances can vary. However the interpretation of fiscal policy over the very recent past, against the background of the Maastricht criteria is not quite as straightforward as appears at first. Finally in this section the economic rationale (if any) behind the Maastricht rules and the Stability and Growth Pact are discussed.

The Maastricht treaty not only laid down preconditions for the public finances but also for the public debt. And for the very same reasons that the public finances attract less attention that before, so too the public debt has not been a topic of heated debate in recent years. That may be changing however. Recent record budget surpluses, and the prospect that they will continue for a number of years, has raised the issue of what to do with these surpluses, with one obvious possibility being that of retiring public debt. This topic raises many complex issues about the role of the state in the economy and society. A choice between debt retirement and tax reduction will have important intergenerational effects. Some of these issues have already been addressed in Chapter 3 but are briefly touched upon again. The chapter ends by examining international evidence as to whether the size of government in the economy has implications for output and living standards. It concludes that once government involvement reaches a certain threshold level, there appears to be little welfare gain from further increases.

* The author appreciates helpful comments from John O'Hagan, Robert Watt and Mark Wynne. This is a draft of a forthcoming chapter in *The Economy of Ireland* (ed. John O'Hagan), Gill and McMillan.

2. THE STRUCTURE OF THE IRISH TAX SYSTEM

In this section the broad features of the Irish tax system are examined using as a benchmark of comparison the other members of the Organisation for Economic Co-operation and Development (OECD). It starts off by examining the overall burden of taxation in Ireland compared to the rest of the OECD and then examine its composition. Table 4.1 below shows overall government receipts as a percentage of GDP for Ireland and the rest of the OECD for a number of selected years.¹ One feature of the table worth noting is that contrary to what can perhaps be regarded as the conventional wisdom, the overall tax burden in Ireland is not high. In fact, Ireland is below the (unweighted) average for the OECD, even for the mid 1980s, a period when substantial tax increases were introduced to redress imbalances in the public finances.

Table 4.1

	Current Government Receipts as Percentage of GDP			
	1985	1990	1995	1999 ^(*)
Ireland	38.2	35.0	34.0	33.4
OECD (unweighted average)	39.0	40.7	41.5	42.2

(*) Estimates and projections. Source: *Economic Outlook* No. 66, December 1999, OECD
Source: Analytical Databank, OECD.

The view that Ireland has relatively high taxes probably stems from the fact that for a given amount of tax revenue, the tax base in Ireland is relatively narrow. For example, as discussed above taxes on property and wealth in Ireland have been low. Until recently the tax yield from corporate profits has also been relatively low, so that consequently taxes on wage income plus indirect taxes have been correspondingly high. In table 4.2 we show the composition of tax revenue for Ireland and the OECD for 1980-97 (the most recent year for which we could find comparable data). The OECD convention is followed here by regarding social security contributions as a tax. This is because they are typically compulsory unrequited payments to government and so it seems reasonable to believe that they satisfy the definition of a tax. Note also that the share of personal income tax in overall tax revenue in Ireland has remained remarkably constant over the period. In the rest of the OECD it has fallen from just under a third to just over a quarter.

Table 4.2

	Composition of Tax Revenue (percentage share), 1980-97									
	1980		1985		1990		1995		1997	
	Ireland	OECD	Ireland	OECD	Ireland	OECD	Ireland	OECD	Ireland	OECD
Corporate Income Taxes	4.5	7.6	3.2	8.0	5.0	7.9	8.5	8.0	10.0	8.8
Personal Income Tax	32.0	31.3	31.3	29.7	31.9	29.4	30.7	27.0	31.4	26.6
Social Security and Payroll taxes	14.5	23.6	17.1	23.5	16.1	23.8	15.6	23.8	14.0	25.8
Specific Consumption Taxes	28.3	16.5	22.0	16.0	20.1	12.9	17.5	13.0	16.1	12.4
General Consumption Taxes	14.8	14.1	20.6	15.8	20.6	17.4	21.2	17.5	21.8	18.0
Others (including property taxes)	5.9	6.9	5.8	7.0	6.3	8.6	6.5	8.7	6.7	8.4

Source: OECD Revenue Statistics, 1965-97, 1999.

The key features of the main taxes are now examined. As table 4.2 shows the principal taxes in Ireland are personal income and social security contributions (both employer and employee), consumption taxes (both general and specific) and corporate income taxes. Between them these taxes account for over 90 per cent of tax revenue in Ireland. Dealing first of all with personal income tax, all taxpayers have a personal allowance (which is transferable within a married couple) and a further PAYE allowance (there are other allowances depending upon circumstances such as the presence of a dependent relative or incapacitated child etc.). These allowances permit the tax authorities to introduce a degree of tax progressivity (i.e. the average tax rate rises with income) even though there may only be one or two actual tax rates. Taxable income will also be affected by various reliefs such as mortgage interest relief, relief on health insurance contributions etc. (the rationale for these reliefs are discussed in more detail below).² There is then a standard tax rate of 22 per cent and a higher tax rate of 44 per cent. The use of the term "higher" suggests a tax rate which is paid by a relatively small number of high-earners. However, as table 4.3 below shows this is not the case. This table shows the evolution of the percentages of tax units who are in different bands from 1994 to the present.

Table 4.3

Tax Year	Percentage of Tax Units in Different Bands			
	Exempt	Marginal Relief	Standard Rate	Higher rate
1994/95	25.8	9.6	36.4	28.3
1995/96	24.5	9.6	37.5	28.4
1996/97	24.4	10.6	36.5	28.0
1997/98	23.3	8.1	36.7	28.9
1998/99	22.9	5.6	41.3	30.2
1999/2000	27.2	1.4	39.5	31.9
2000/2001*	25.8	1.4	38.6	34.2

*Pre-Budget.

Source: NES, *Opportunities, Challenges and Capacities for Choice*, 1999.

This table will be influenced by both tax changes introduced in various budgets and by the evolution of incomes over the relevant period. Even allowing for the extent of tax cuts over the period, and the attempts to direct these tax cuts at the lower paid, it is remarkable that about one third of Irish tax units still pay tax at the higher rate. No doubt this is affected by the strong growth rates of recent years, but it is probably this fact which gives rise to the perception amongst taxpayers that Ireland is a heavily taxed country.

Employee social insurance payments are usually regarded as a tax since the contributions do not cover the cost of the associated social provisions. Since public servants pay contributions at a rate considerably below non-public employees this is particularly true of state pensions. There is also an upper ceiling on assessable income for social insurance contributions from private sector employees which creates the feature that for these employees above this ceiling social insurance contributions are regressive, in the sense that they constitute a lower percentage of earnings for higher earners.

Taxes on consumption, both specific and general, account for nearly 40 per cent of tax revenue in Ireland. The breakdown between them has varied over the years with a fall in the share of revenue accounted for by specific consumption taxes (mainly taxes on tobacco, alcohol and petrol) from 28.3 per cent in 1980 to 16.1 per cent in 1997. This reflects a form of "tax competition" whereby it is believed there was widespread smuggling of various goods from the relatively low taxed Northern Ireland to the Republic. This reached such a stage by the mid 1980s that despite the precarious state of the public finances certain excise duties were actually cut to offset smuggling. Consumption taxes share one feature with income taxes in Ireland in that the base is relatively narrow, due to the zero-rating or exempting of certain goods and services for VAT purposes, most notably food. The rationale for the non-taxation of food of course is that food constitutes a higher percentage of total expenditure for lower income households and taxation of food would represent a greater burden on such households. As shall be seen below however, this is despite the fact that in many respects food is an ideal good upon which to levy a tax.

Regarding corporation tax probably the most striking feature is its substantial rise over time. However, this is more a feature of the expansion of the corporate tax base owing to the economic expansion of the 1990s and a high tax elasticity compared to other taxes. The OECD calculate that in Ireland a 1 per cent rise in GDP leads to a 1.2 per cent rise in corporation tax receipts as opposed to increases of only 0.5 per cent for indirect and 1.0 per cent for direct tax. Corporation tax now accounts for a higher share of tax revenue in Ireland than for the OECD average. This may reflect a degree of tax competition whereby countries are reluctant to increase corporate taxation for fear of deterring international investment. It is this desire to attract foreign investment which lay behind the dual nature of corporation tax in Ireland for so long, whereby there was a standard rate ranging from about 50 to 28 per cent accompanied by a preferential rate ranging between zero and 10 per cent on manufacturing and certain internationally traded service activities. How much of a role this strategy played in attracting foreign

investment and promoting manufacturing employment in Ireland is difficult to assess as other factors were undoubtedly at work, but it seems reasonable to suggest that it was highly significant. From January 2003 a uniform rate of 12.5 per cent will apply on all corporate profits.³

Having given a broad overview of the Irish tax system, the general principles involved in designing a “good” tax system are now discussed.

3. PRINCIPLES OF A GOOD TAX SYSTEM

This section of the chapter explains why taxation is a necessary evil, and what sort of features are desirable in a tax system. It will be seen that designing the “best” tax system is a formidable task and probably beyond the scope of any tax authority. Indeed, it is unrealistic to expect economic analysis to come up with optimal tax recommendations along the lines of “the optimal tax on lawnmowers is 22.5 per cent”. Rather as Frank Hahn has put it, the aim is to explore “the grammar of arguments about policy”.⁴ However, there are more modest and attainable objectives. For example, it may be possible to identify, from a given starting position, directions of tax reform which will improve welfare.

When trying to design the best tax system or identify tax reforms, the policy-maker will invariably be forced into trading off various factors, such as equity and efficiency. How precisely this trade-off is resolved is a thorny issue of policy and one which ultimately involves value judgements. In this case the role of the economist is not to make specific recommendations but rather to highlight the trade-offs as clearly as possible. It is then left to the policy-maker, who is presumably accountable to the public at large in some way, to make the decision. Frequently economists employ the tool of a *social welfare function* to essentially mimic the decision-making process. Optimal policies are then chosen to maximise the value of the social welfare function. Of course, the precise specification of the social welfare function is crucial and it is essential that the sensitivity of results to this specification is tested.

Broadly speaking the type of issues which will figure significantly in any social welfare function and which consequently are the principles which should form the basis of any good tax system are efficiency, equity and simplicity. These are discussed in turn, bearing in mind the conflicts and trade-offs that often arise between them.

Efficiency

Efficiency in a tax system arises because, in general, taxes create distortions. They create distortions because they drive a wedge between the producer price of a good or service and the consumer price of that good. For example, suppose a baker is happy to sell 100 loaves of bread at £1 a loaf, and consumers are happy to buy 100 loaves at this price. If the government then decrees that a tax of 10p per loaf must be paid, this drives a wedge

between the price the producer is willing to supply at, and the price the consumer is willing to purchase at (the precise effect of the 10p tax on the final selling price is a separate issue that we discuss later). The existence of the 10p wedge implies that both producer and consumer are producing (and consuming) away from the optimum they would freely choose in the absence of taxation. Thus, the tax has had two effects on their welfare. First, between them they are 10p per loaf worse off than before the tax was imposed. This is the *income effect* of the tax and it must arise for any tax revenue to be collected. As long as a certain amount of revenue has to be collected this income effect will arise regardless of what goods are taxed. And since the revenue collected for the tax will presumably be spent upon some worthy project, it can be argued that the income effect does not impose any net welfare loss on society as a whole. Of course, it has major implications for the welfare of the producers and consumers of bread. And if the revenue raised goes towards providing more teachers or nurses it will have positive implications for the welfare of these groups. However, when examining efficiency the distributional aspect of taxes are ignored (this is addressed by the equity aspect of taxes). How the revenue is spent is also usually ignored. Decisions regarding the collection of taxes and how to spend them are assumed to be made separately, an assumption which is not always too far from reality.

However, because both producer and consumer are away from their optimum quantities of loaves produced and consumed there is a separate loss to them arising from the *substitution effect*. This loss is often known as the *deadweight loss* or *deadweight burden* of the tax. While a need to raise revenue of say £10m will always give rise to an income effect of £10m regardless of where the tax is levied, it is not the case that the extent to which agents are moved away from their pre-tax production and consumption levels is independent of where the tax is levied. Thus different taxes give rise to different deadweight losses and from an efficiency point of view, the best tax is that one, or combination of taxes, which raise a given revenue with the smallest deadweight loss. Thus ideally we want a tax which raises revenue but does not cause people to behave differently from how they would in the absence of the tax i.e. it has a zero substitution effect. An extreme example of this is what is known as a *lump-sum* tax. This is a tax which is imposed on agents regardless of their behaviour. It is lump-sum because it does not depend upon how much they consume or produce of a commodity. Unfortunately it is very difficult (if not impossible) to devise a lump-sum tax which does not have some implications for people's behaviour. One example which has been suggested in the past is a *poll tax* i.e. a tax which is levied upon every individual in the state (it has to be individual rather than household, since otherwise it would have implications for households size and formation) regardless of their financial circumstances. While such a tax may be desirable from an efficiency point of view it can be argued that it is not desirable from the perspective of equity or fair play, since rich and poor will pay the tax alike (this is related to the concept of ability-to-pay which we discuss in the next section). This can have severe implications for people's willingness to pay, since a tax that is considered a blatantly unfair tax is likely to give rise to protest. From an administrative point of view such a tax also creates a headache. For example, if records of those liable for tax are kept on, say the electoral register, then there is an incentive for people to keep their names off the electoral register, and thus lose their vote. The experience in the UK

in the early 1990s with a poll tax are a salutary reminder of just how difficult it is to impose a truly lump-sum tax.

If a lump-sum tax is not feasible, what is the next best alternative? As outlined above the extent of the deadweight loss is related to the amount by which agents' behaviour differs from that of the no-tax situation. Since the imposition of a tax is equivalent to changing the price of the good or service, ideally taxes should be imposed where a change in price gives rise to the smallest change in behaviour. Sensitivity of behaviour to price changes is measured in terms of *price-elasticity*. Hence in general relatively higher taxes should be imposed on those goods or services where price elasticities of supply and demand are lowest. What this implies is that a *uniform* tax system, where all goods and services have the same tax, is rarely optimal, unless elasticities are the same across goods, though as discussed below such a tax may be attractive from an administrative point of view. Note this refers not just to own-price elasticities but also cross-price elasticities. For example, a high tax on petrol is likely to have an impact on motor purchases. Ideally in trying to minimise deadweight loss, all relevant elasticities should be taken into account, which imposes significant informational requirements.

Equity

The discussion above showed how considerations of efficiency have to be balanced by those of *equity*. This principle of taxation is now explored in more detail. Equity is one of those terms which is often used in casual conversation, but is sometimes more difficult to define precisely. In the context of taxation it can usefully be explained via the concept of *ability-to-pay*. Suppose a tax authority is trying to decide how much tax should be levied from each household. Leaving aside for the moment the size or composition of households, assume that they differ in one respect only: their economic resources. The application of the ability-to-pay principle then implies that the tax levied on each household should be related to their economic resources, their ability to pay the tax in question. What is known as *horizontal equity* implies that families with identical economic resources should pay equal taxes. People who are alike from the point of view of taxation (i.e. the level of their resources) should pay equal tax. A related concept is that of *vertical equity*. It indicates that different agents (from the point of view of taxation) should pay different tax. Of course, the extent to which different agents pay different tax will dictate the *progressivity* of the tax system. In general, agents with more resources will pay more tax, but exactly how much more will be a matter of debate.

Thus in applying the concept of horizontal equity the essential principle is that agents who are alike in all relevant characteristics should be treated equally from the point of view of taxation. While this appears to be a relatively straightforward principle to apply, in practice it can be quite tricky. For example, what are the relevant characteristics? Most people would agree that characteristics such as race, religion or gender should not be taken into account when assessing tax liability. Yet even this apparently simple principle can run into trouble. For example, in the case of social security tax, most people would probably agree that the rate of tax should not differ according to gender. Yet this implies discrimination in favour of females, since the actuarial benefits of social

security pensions are greater for women, since on average they live longer. This is a case where while agents may be equal *ex ante* they are not equal *ex post*. The extent to which marital status should affect tax treatment is also problematic and has changed significantly through the years.

Principles of equity also come to the fore when analysing changes in taxation. This is owing to the fact that people adjust their behaviour in response to an existing tax system and changes (particularly large changes) can cause windfall gains and losses for different groups. Take for example the fact that the returns to owner occupation of housing are not taxed. Suppose now there is a change whereby these returns are taxed. This will affect the underlying value of the asset and will bring about a loss for house owners. Since these house owners bought their houses under a tax regime that they may reasonably have expected to remain unchanged, it is arguable that the loss conferred on the buyer by the tax change is "unfair", even if it satisfies other criteria of equity and efficiency. Thus any tax change runs the risk of contravening *transitional equity* and it is difficult to see ways around this, bar the signalling of such changes well in advance in order to give agents the time and opportunity to adjust their actions.

Even when the thorny problem of what is meant by equity is overcome, trade-offs with efficiency will almost inevitably arise. For example, the efficiency principle suggests applying high tax rates to goods and activities which have low elasticities, in other words goods which are not price sensitive. Typically these will be necessities such as food and shelter which people have to consume, regardless of their price. However, these are precisely the goods that constitute a larger share of the budget of less well-off households and so high taxes on these goods and activities will place a greater burden on the poor and contravene principles of equity.

This simple example above shows how tax authorities face difficult trade-offs in trying to design the best tax system. It also indicates that the optimal tax system could be quite complex with a myriad of different tax rates on different goods and activities. But a complicated tax system will be costly to run and will itself absorb substantial administrative resources. This brings us on to the last of our desirable features of a tax system, simplicity.

Simplicity

The principal argument in favour of a simple tax system is that it is less costly to run. These costs usually come under two headings: administrative costs and compliance costs. Since the object of taxation is to raise revenue for the provision of services by government, there is little point in having a tax system so complex that its administration absorbs considerable quantities of the resources it is trying to collect.

But it is easy to forget that much of the costs of running a tax system falls not just on the tax authority but also on those paying the tax. For example in many countries the tax burden for the self-employed is self-assessed. Thus the individual in question calculates their tax liability taking into account all the allowances and exemptions for which they

are eligible. The more complicated the tax system the greater will be the resources involved in accurately assessing tax liability. This may give rise to agents devoting considerable resources to arranging their affairs so as to minimise their tax liabilities (where this is done legally it is known as *tax avoidance*, where illegally it is *tax evasion*). To the extent that the same amount of revenue could be collected by a simpler tax system where such rearranging is not necessary then this is a waste of resources. In the extreme an exceptionally complex tax system will give rise to incentives (and opportunities) for widespread tax evasion, which in turn implies further resources devoted to pursuit and prosecution of tax evaders. Since the opportunities for tax evasion are usually greater for the well-off, a system which has or is believed to have a high level of tax evasion will lose the confidence of the majority of middle and low-income tax payers. Thus a tax system which is simple and transparent in terms of who is liable for what tax is likely to reduce the cost of government for a variety of reasons.

How precisely to deal with tax evasion itself gives rise to trade-offs in terms of commitment of resources. Generally, the simpler the tax system the less opportunity and incentive there will be for evasion. A low tax rate applied to a wide range of goods and activities will also encourage compliance, since the return to evading any one tax will be relatively small. But of course these features may conflict with equity and efficiency. The incentive to evade tax will also be affected by the expected cost of detection, which in turn is influenced by the probability of detection and the sanctions imposed upon those who are caught. But of course, after a certain point there may well be diminishing returns to the amount of resources devoted to detecting tax evasion, indicating that the tax authorities may have to choose some "optimal" level of evasion.

As an alternative to devoting more resources to the pursuit and prosecution of tax evaders, the authorities may try the carrot rather than the stick. For example, the belief that there was widespread tax evasion in Ireland in the course of the 1970s and 1980s led to a tax amnesty being declared in 1988, with a further tax amnesty announced in 1994. The first amnesty was successful in the sense of bringing in large quantities of previously uncollected tax and also presumably in bringing agents into the tax net who had previously been outside it. The second amnesty raised major misgivings however owing to the conflicting incentives it offered tax evaders. On the one hand it may have brought more tax evaders into the tax net. On the other hand however, it may have discouraged tax evaders from coming clean, since they may have felt that further tax amnesties might be declared in the future. This problem is known as time-consistency and it can arise in many aspects of government policy. Governments may state that they intend to follow a certain policy line, but subsequently may find it optimal to change this line. They then have to trade off the benefits of making the switch in policy against the costs of the lost credibility in not sticking to their original plans.

Uniformity and Corrective Taxes

Before concluding this section there are two further points worth discussing. These are the case for uniform indirect taxation and the role of corrective taxes. As outlined above, efficiency arguments tend to point away from uniform indirect taxes, since substitution

effects for goods will differ. However, uniformity has attractions from an administrative viewpoint and it presumably reduces the scope and motivation for tax evasion. There is also pressure at EU level towards indirect tax harmonisation. There is relatively little empirical work on the relevant costs and benefits, but it can be argued that a compromise whereby there is a considerable degree of uniformity supplemented by surtaxes on a selected subset of goods may be the best approach.⁵

One set of goods where a persuasive case can be made for surtaxes are goods where there are negative consumption (or production) externalities. Take, for example, the case of tobacco. Were tobacco to be untaxed then presumably the market price would be that price where the marginal cost and marginal valuation to the individual would be equal. However, it can be argued that in the case of a good such as tobacco there is a divergence between actual private cost and perceived private cost and also a divergence between private and social cost. Thus private individuals may not fully discount the future health problems associated with tobacco consumption. They are also unlikely to take on board the possibilities of passive smoking or the extent to which their future health costs may be met from general taxation. The imposition of a corrective (or *Pigovian* after the economist Arthur Pigou) tax will ensure the equality of private and social cost. Thus there is a case for taxation of tobacco above and beyond the rate which equity and efficiency considerations suggest should be applied. Similar arguments can be made for goods such as alcohol and petrol. How precisely to estimate such negative external effects is beyond the scope of this chapter but there are a variety of approaches.⁶

This section has outlined some of the issues involved in designing a "good" tax system. Such a task will often be an exercise in compromise, since typically efficiency must be balanced against equity while also bearing in mind the advantages of a simple, transparent tax system. The next section moves away from the some of the broad principles of tax design to some of the more practical issues of implementing a tax system, giving examples from the Irish situation where applicable.

4. ISSUES IN IRISH TAXATION

Section 3 presented a broad discussion of some of the desirable features of a tax system. Following on from that discussion two further, important practical issues are examined. Given the desirable features of a tax system referred to above, what sort of goods or activities should be taxed, and who ultimately pays the tax? The first question refers to the appropriate tax base. Two primary candidates for the tax base are income and consumption. But apart from the obvious consumption and income taxes there are also taxes on corporate profits, upon wealth etc. What are the rationales for these taxes and what is the relevant base? Without going into too much detail it will be seen that issues involved can be quite complex. Not the least of the difficulties involved is the fact that the agent from whom the tax is collected may not bear the full, or indeed any, of the real burden of the tax. This is the question of *tax incidence* and in many cases who ultimately pays any given tax is not an easy matter to ascertain.

Tax Base

Broadly, the two most popular candidates for the tax base are comprehensive income and consumption. The most commonly used definition of comprehensive income is that of Simons who defines it as: "The amount which may be spent on consumption without adding to or subtracting from real wealth in the process".⁷ The principal difference between comprehensive income and consumption lies in the treatment of savings. If the base for taxation is income then savings will be doubly taxed, once when they are earned and secondly when the return is paid. With a consumption base they are taxed only when consumed. Despite the distortion between savings and consumptions that arises when an income based is used, pure consumption taxes are relatively rare worldwide. Only India and Ceylon (now Sri Lanka) have adopted them and found that from an administrative point of view they left much to be desired. However, it must be pointed out that a truly comprehensive income tax is also practically impossible to implement, since it requires that the return to all forms of capital, including human capital, to be taxed. There is also the problem of switching from a predominantly income base to a consumption base. In general large scale tax changes cause problems of their own, so much so that it can be argueable that the administration of the cure is worse than the disease.

In practice, virtually all countries apply a direct tax system which is effectively a compromise between a comprehensive income tax and a consumption tax. This is because while financial asset income is typically taxed, many other forms of asset income are not taxed (e.g. the return to human capital). Even in those cases where asset income is taxable, the tax rate may differ, thus influencing the after-tax rate of return and presumably altering the composition, if not the overall level, of savings. Research for Ireland and other countries has indicated that the tax system can exert a major influence upon the after-tax rate of return and it is far from clear that this is a benign influence.⁸ While the lower rates of inflation of recent years have removed much of these distortions, we are still some way off a "level playing field" for the tax treatment of different forms of saving.

The Irish personal income tax base is also narrowed by a significant quantity of exclusions, reliefs and exemptions. Examples of these are the exclusion of the imputed income from owner-occupancy of housing. There is also tax relief for interest payments on mortgages not to mention pension and health insurance contributions. Finally certain forms of income (e.g. child benefit, rental income from certain sources) are exempt from tax. It is beyond the scope of this chapter to detail the cost of this narrowing of the tax base but recent estimates suggest that the full year cost of mortgage interest relief, medical insurance relief and contributions to superannuation schemes amount to well over £600m.⁹ Since the full year cost of lowering the standard rate of tax by one per cent is reckoned to be about £110m and that of lowering the higher rate of tax about £78m, it is clear that were these reliefs/exemptions not present the structure of the personal tax system (or indeed other branches of the tax system) could look radically different. Of course there may be valid reasons for the presence of at least some of these reliefs/exemptions but it seems difficult to justify the current extent, not to mention the

fact that many of them tend to favour the better-off and introduce arguably unnecessary market distortions.

Unit of Taxation

Another basic issue in taxation is the choice of unit of taxation. When dealing with personal income or consumption tax the choice is between the individual and the family. This issue has attracted much heated debate in Ireland in recent years, not least because shifting demographic conditions means that the nature of the family has changed over the years. The issue becomes particularly thorny when dealing with the case of married couples, where in some cases both spouses are “working” and in the other case where one spouse is “working” and the other is on “home duties”. Take the case of two families, where in case 1 only one spouse works outside the home and say earns £60,000. In case 2, both spouses work outside the home and earn £30,000 each (additionally we suppose that both families are identical in all other respects). In both cases family income is £60,000. Does this imply that they both have an equal ability to pay, and that principles of horizontal equity indicate that they should have the same tax liability? The 1999/2000 Budget introduced changes which implicitly answered “No” to this question. The widening of tax bands at the standard rate of income tax was greater in the case of the two-earner family (family 2), implying that after the budget their tax liability would be lower. Essentially this was presented as a move towards “individualisation” since tax liability was being calculated more on the basis of the individual rather than the family. Equivalently there was less than 100% transferability (of allowances and tax bands) between the two spouses in the one-earner family.

Did this “reform” go against principles of horizontal equity? The answer to this question lies in what are regarded as the relevant characteristics when comparing families for their tax liability. If earned income is to be the only relevant characteristic then the families are equal before tax, and then according to horizontal equity should be equal after tax. However, in the case of the one-earner family, if some value is to be put on the home duties carried out by the non-earning spouse, then the one-earner family is in some sense better off, and thus according to principles of vertical equity should have a higher tax liability. Opponents of this viewpoint argued that the proposed changes would leave those families where one spouse chose to remain at home at a disadvantage and that it was in some sense “anti-family”. In the event an additional widening of the tax band for spouses at home was introduced so that following the 1999/2000 Budget both families would have had the same tax liability. However, this controversy vividly illustrated the complex and often emotional issues which can arise when choosing the appropriate unit of taxation. It also showed the difficulty of introducing tax changes, even in cases where there are no losers in absolute terms. Overall, the trend in Ireland, as in other EU countries, appears to be towards taxing the individual rather than the family.

Corporation Tax and Incidence

Aside from the obvious taxes on consumption and income, there are also taxes on corporate profits and upon wealth. What is the rationale for these taxes? Why should a firm be taxed and why should wealth (presumably the result of past effort which has already been taxed) be liable to further tax? Before answering these questions it is helpful to introduce the notion of the incidence of a tax. This is best explained by the following example. Suppose the government introduces a tax upon firms. The firm owners now see their profits reduced. To restore their profits back to near what they were before the tax they may choose to (a) pay their workers less or (b) increase their prices for consumers, or maybe they will do a combination of both. In this case who has really paid the tax? Nominally the tax authorities collect it from the firm, but in effect it seems as if the tax is really paid by the workers and/or consumers. Thus while the nominal incidence of the tax is on the firm, the effective incidence is on the workers/consumers. How do we know how much of the incidence of the tax is passed on to the workers and how much to the consumers and how much is left for the firm to pay? Broadly this depends upon the state of the relevant markets involved. For example, if the firm has a monopoly in the production of the good in question, or if market demand is very inelastic, then a considerable portion of the tax can be passed on to the consumer. However, if the market for the good is very competitive with close substitutes available then the firm will not be in a position to burden the consumers with the tax. In the case of taxing firms, the situation where the burden of the tax is mostly borne by workers is known as *backward shifting*, while the case where it is consumers who bear the burden is known as *forward shifting*. A final difficulty is that there is little compelling empirical evidence on who exactly pays the corporation tax.

The difficulty in assigning the incidence of corporate taxation has led to suggestions that there is little point in taxing the firm. The tax can always be passed on to other agents and in any event the firm is ultimately owned by people (shareholders). Even if the incidence of the tax falls on the firm, why not tax the income/consumption of the owners directly? Why tax them via the firm?

A number of arguments have been put forward to answer these questions. Space constraints prevent us from going into too much detail so we will keep the discussion brief. The first argument is that the corporation benefits from various publicly provided goods. Among the more obvious of these are roads, bridges and airports, but firms also benefit from highly-trained workers who have been educated at public expense. Ideally, the corporation could be charged for these benefits at point of use, but this would create major administrative problems. So the corporation tax is an imperfect mechanism for achieving the goal of enforcing the corporation to pay for the publicly provided goods it consumes and benefits from.

The second reason for taxing corporations relates back to the definition of comprehensive income. If the tax authorities use comprehensive income as their tax base then probably the most difficult portion of this income to tax is accrued capital gains (i.e. the increase in the value of assets). When these gains are realised then they can be taxed

according to the normal personal tax system. But someone could choose not to realise such gains while their wealth (in the form of the value of shares of untaxed companies) can increase. Taxing companies is once again an imperfect way of taxing such accrued capital gains. Of course not all income from shares comes in the form of capital gains. Dividends may also be paid. In this case taxing the firm and then taxing the individual on their dividends may be seen as double taxation. To avoid this most tax regimes have some method of adjusting personal tax liabilities to take account of the tax paid on their behalf by companies.

Wealth Taxes

Finally, what about taxes on wealth and bequests? These differ from the taxes discussed above in that they tax a *stock* (in this case of wealth or else a gift, or inheritance of wealth) as opposed to a *flow* such as wage or profit income or consumption. But why should wealth be taxed when presumably tax has been applied to the income which generated this wealth? Recall above that one of the problems of applying a comprehensive income tax is that it may be difficult to tax the return on certain forms of wealth, or on unrealised capital gains. Taxing the underlying wealth may partially remedy this. The taxation of wealth may also reduce the *concentration* of wealth i.e. the extent to which it is unequally distributed and so a case can be made upon equity grounds. It can also be argued that since wealthy people benefit to a greater extent from one of the primary services provided by government (law and order and the protection of property), they should be taxed accordingly.

Attempts to apply a wealth tax in Ireland have met with little success. In 1975 a wealth tax was introduced essentially to replace existing Estate Duty, but subsequently abandoned due to a variety of problems. These were primarily relating to the excessively high administrative and compliance costs, not to mention opposition from a variety of powerful interest groups. To compound the situation, in 1977 rates on domestic property were abolished. While there were undoubted problems with establishing accurate valuations of property, not least at a time of relatively high inflation, the abolition of rates, as opposed to their reform, represented an unfortunate narrowing of the tax base. In 1983 a Residential Property Tax was introduced, but once again it fell foul of the problems typically encountered by taxes of this nature. Since the tax was to be applied only on property above a certain threshold, once again there were issues regarding valuation. The low yield from the tax was indicative of problems with its application and in 1997 it was abolished.

Taxes on bequests or gifts are very similar in spirit to taxes on wealth. However, instead of an annual tax on wealth, they represent a tax on wealth at irregular intervals occasioned perhaps by the death of the wealth holder (an *estate tax*), or when a gift is being made. Note that the administrative costs associated with valuation of wealth for an estate tax are likely to be much lower than for an annual wealth tax. This is because such a valuation will typically be carried out anyway on the estate of the deceased. Overall, there is relatively little accord on the incentive and incidence effects of estate and gift

taxes, and they receive comparatively little attention since they rarely constitute a substantial percentage of overall government revenue.

The Irish Tax Base Revisited

One of the features of the Irish system which has been mentioned a number of times already, and which is revealed by an examination of table 4.2, is the relative narrowness of the tax base in Ireland, compared to the rest of the OECD, in terms of the percentage accounted for by income and consumption taxes. But is this necessarily a defect in the system? Is there an optimal mix, in terms of direct and indirect taxes or in terms of personal versus corporate taxation? When the problem is couched in these terms optimal taxation is limited in what it has to say, primarily owing to issues such as nominal and effective incidence discussed above. Claims along the lines that the corporate sector should increase their share of tax revenue are essentially meaningless unless there is knowledge of the effective incidence of the tax. Similarly, the incidence of income tax reductions will fall on both employer and employee. And reductions in income tax rates are of limited benefit to wage earners if accompanied by offsetting consumption tax increases, the much heralded tax reductions in the UK in the 1980s being a case in point.

However this begs the question of why there is such an extensive range of taxes. If all taxes are ultimately paid by individuals then why not simply have a single rate of tax applied to the relevant base? There are essentially two answers to this question. First of all, since taxes have to simultaneously try to satisfy principles of equity, efficiency and simplicity it is difficult to find a single tax which scores well on all these criteria. Some taxes will have strengths in one department and some in others. In this case a (limited) mix of taxes may be preferable to a single tax. As seen above, since uniform indirect taxation is only optimal under very specific conditions then why should only one form of taxation be optimal? The second reason for having a range of taxes is simply because that is the current situation. This answer is not as trite as it seems. As outlined above, the introduction of large-scale changes to the tax system will typically cause windfall gains and losses in ways that may not be entirely predictable. In this sense it may be the case that "an old tax is a good tax".

In this case, probably the best rule of thumb is to generally concentrate relatively higher tax rates on the less elastic goods and services, provided the distributional consequences are not adverse. In this sense, probably the most glaring anomaly in the Irish tax system is the absence of any form of taxation of property and the reluctance of the tax authorities to confront this issue. A corollary of this is the (by international standards) high number of taxpayers whose marginal tax rate is the higher rate of tax. A further incongruity is the absence of any carbon tax (i.e. a tax on the emission of harmful carbon related products). Such a tax would provide a dual benefit by firstly providing a (limited) widening of the tax base and secondly through offering some protection to the environment. It seems likely however, that should such an initiative be introduced in Ireland, it is most likely to arise from EU pressure. In this case it is possible that the revenue collected from such a tax will end up as EU rather than Irish revenue.

Of course taxation is only one side of the coin of government involvement in the economy. The next section reviews government spending, the gap between spending and revenue and the overall debt position of the economy.

5. GOVERNMENT SPENDING, DEBT AND THE PUBLIC FINANCES

Fiscal Policy in the 1980s and 1990s

For most of the 1980s macroeconomic debate in Ireland focussed on the question of the state and the sustainability of the public finances. Excessively expansionary budgets in the late 1970s and early 1980s coupled with the effects of international recession for much of this time led to a situation in the mid 1980s where the national debt had reached an absolutely critical level. Table 4.4 below shows general government net lending and the level of national debt (expressed as a proportion of GDP) for Ireland and the OECD for a number of selected years.¹⁰

Table 4.4

General Government Lending as Percentage of GDP				
	1985	1990	1995	1999*
Ireland	-10.4	-2.8	-2.5	3.4
OECD	-4.0	-3.2	-3.9	-0.5
(unweighted average)				
Gross Public Debt as Percentage of GDP				
	1985	1990	1995	1999*
Ireland	99.7	92.6	80.8	43.9
OECD	58.9	57.0	71.5	64.5
(unweighted average)				

(*) Estimates and projections. Source: *Economic Outlook* No. 66, December 1999, OECD Source: Analytical Databank, OECD.

The table shows there was a worldwide trend towards lower government deficits over the 1985-99 period, but that the turnaround in Ireland was even more dramatic. By 1990 the government deficit was below 3 per cent of GDP and while the debt/GDP ratio was still high, it had at least peaked and was heading in the right direction. This reversal of the trend came about partly due to contractionary budgets in 1987 and particularly in 1988 and also due to a pickup in growth aided by a number of factors, including a boom in the UK and the maintenance of a competitive exchange rate following the devaluation of 1986. By the late 1990s the government was comfortably in surplus and a form of virtuous circle, the opposite of the experience of the 1980s, had arrived. High growth led to budgetary surpluses, followed by lower debt which in turn implied lower debt servicing for future years, which then led to further surpluses etc. The high growth in GDP and tax revenue also helped greatly in reducing the debt/GDP ratio. By the end of the 1990s the debt/GDP ratio was well below the OECD average.

For most of the 1990s analysis of the public finances was carried out against the background of the Maastricht criteria. These were the conditions for eligibility to participate in European Monetary Union and they laid down certain limits on key fiscal magnitudes. Government borrowing was not to exceed 3 per cent of GDP and the national debt should not exceed 60 per cent of GDP, although an exception could be made for the case of countries whose debt/GDP ratio was approaching the reference value at a satisfactory rate. For those countries which entered monetary union a subsequent set of rules (essentially building upon the Maastricht criteria and known as the Stability and Growth Pact) apply, stating that the government should balance the budget over the economic cycle and at no stage should borrowing exceed 3 per cent of GDP. Exceptions could be made in the case of an unusually deep recession, but otherwise non-observance of the rules would lead to monitoring and sanctions. The application of these rules demonstrate the importance of evaluating fiscal policy taking account of the stage of the economic cycle. The next section deals precisely with this point.

Fiscal Stance

This section addresses how best to measure the *stance* of fiscal policy. The stance of fiscal policy can be interpreted as the extent to which the government, on a net basis, contributes to or takes away from demand in the economy. While the level of government borrowing can be used as a measure of fiscal stance ideally a correction should be made for the state of the underlying economy, since spending is typically lower (higher) and taxation higher (lower) during a boom (recession). Thus, in any given year, actual government borrowing will comprise that part which arises due to the particular stage of the economic cycle (and which would be zero were the economy to be precisely on its trend with a zero output gap), the *cyclical* part, and that part which is due to more fundamental, underlying factors, known as the *structural* part. How precisely to break down the actual government deficits into these parts is a complex methodological issue, but the OECD provides some recent estimates.¹¹ It must be borne in mind that for the following discussion, the underlying estimates of potential GDP must be treated with caution. Table 4.5 below shows the changes in the overall government balance, the cyclical component and the structural primary balance from peak to trough of the cycle (i.e. late 1980s to early 1990s) and then from trough to current situation (early 1990s to present) for Ireland, the Euro area and the OECD. Note that the cyclical and structural primary balances may not add up to the overall balance, the net interest payments being the residual (this item is particularly large for Ireland).

Table 4.5

Cyclical and Structural Primary Balances - per cent of Potential GDP

	Change in					
	Overall Balance		Cyclical Part		Structural Primary Part	
	Late 1980s to early 1990s	Early 1990s to 1999	Late 1980s to early 1990s	Early 1990s to 1999	Late 1980s to early 1990s	Early 1990s to 1999
Ireland	0.8	5.4	-3.4	3.3	2.2	-0.3
Euro Area	-1.4	3.9	-2.2	0.5	1.4	2.7
OECD	-3.0	3.6	-1.4	0.5	0.0	1.4

Source: OECD

Thus for example in the Euro area over the early 1990s to 1999 the change in general government balances was positive to the tune of 3.9 per cent of potential GDP. 0.5 per cent of this was due to the economic cycle and 2.7 per cent was due to discretionary budgetary decisions. Taking the case of Ireland, there is a change in the overall balance of 5.4 per cent for the 1994-99 period and a change in the structural primary balance of -0.3 per cent. This would seem to provide some evidence for the argument that Irish fiscal policy over the latter part of the 1990s was in fact expansionary (albeit to a small degree), despite the large surpluses recorded. However, if interest payments are included as part of the structural balance (given that the principal factors lying behind lower interest payments over the period viz. lower world interest rates and lower debt/GDP ratio are not temporary, but are instead, to a considerable degree, "permanent") then the balance becomes positive to the tune of 2.1 per cent (i.e. the overall balance of 5.4 per cent less the cyclical component of 3.3 per cent) indicating a contractionary stance for the latter part of the 1990s.

The next section examines the outlook for fiscal policy in the medium term, against the background of the Maastricht criteria and the Stability and Growth Pact, starting off by examining the rationale for the existence of fiscal rules in general, and of the Maastricht rules in particular.

The Maastricht Rules and the Stability and Growth Pact

Are Rules Necessary?

Since the Maastricht rules and the Stability and Growth Pact have essentially set out the parameters for fiscal policy and the state of the public finances for the medium term, it is worthwhile to critically examine how suitable they are as fiscal guidelines. Such criticism can take two forms. First, was it necessary to introduce fiscal rules to ensure monetary union? Secondly, were they the right rules? A rigorous discussion of the first issue would take us far into questions of the operation of optimal currency areas and in any case is arguably a pointless exercise since monetary union is a fact and the rules exist.¹² Nevertheless there are a number of points worth mentioning. The existence of fiscal rules is often defended on the grounds that in their absence there would be a temptation for excessive deficits and so such rules are a necessary form of discipline given that monetary union implies the absence of the usual discipline imposed by

financial markets. The counter to this argument is that membership of a monetary union does not mean that the discipline imposed by financial markets will not apply. Any country which persistently runs excessive deficits will suffer penalties in that their bonds will trade at a discount. But will this discipline be sufficient and is there the possibility of "contagion effects" in the sense that excessive deficits in one member country may imply penalties being imposed on all? It is worth noting the situation in the US regarding the extent to which different states have constraints upon their fiscal sovereignties. Here there is a much greater degree of economic and monetary union than in Europe, yet there are still different risk premia attached to the bonds issued by different states. There are also more stringent fiscal rules than those implied by Maastricht. It should also be pointed out that the degree of fiscal federalism in the US (the process whereby a downturn in activity in one state is automatically followed by transfers of funds into that state from other states) reduces the scope for excessive deficits.

Finally before discussing the rules themselves the recent arguments concerning the link between the level of public debt and the price level should be noted.¹³ These arguments point out that the traditional association of price stability with prudent monetary policy ignores the role of fiscal policy in the determination of the price level. They argue that responsible fiscal policy may be every bit as important as monetary policy in ensuring price stability. In the European Monetary Union, where there is a central monetary authority but no central fiscal authority, responsible monetary policy may not in itself guarantee price stability. In this regard the Maastricht rules may at least provide some form of fiscal discipline, even though there is an absence of a central coordinating fiscal authority.

The Optimality of the Rules

The second issue, the suitability of the particular rules chosen, is perhaps more relevant. How do the Stability and Growth rules fare when examined from the point of view of optimality? One of the problems in answering these questions is that, unlike the case of taxation, there is little consensus on what are optimal fiscal rules. One suggestion which has been put forward is the so-called "golden rule of public sector investment" i.e. that over the fiscal cycle government borrowing should not exceed government capital formation (or more simply, governments should only borrow for investment purposes). Such a rule has a superficial attractiveness since it implies a degree of "prudence" on behalf of governments (and the cynic might well argue that if the "golden rule" accomplished only this, it is certainly worth adopting!). However it suffers from serious difficulties in application. For example, many items of public spending do not fit comfortably into the definition of either "current" or "capital" e.g. is a public vaccination programme current spending or an investment into the health of the nation? It is also not clear why if it is optimal for private individuals to smooth their consumption over time and over different situations, why not for the public sector as well?

Perhaps the most unsatisfactory aspects of the guidelines is that they lay down rules for which there are no obvious justifications, the most glaring being the 3 per cent upper limit on the deficit. It is arguable that the insistence on the application of this rule is unduly harsh and may give rise to difficulties when the next major economic downturn occurs. While a deficit in excess of 3 per cent is allowed under exceptional circumstances, the danger is that in moderate downturns, governments will be forced into pro-cyclical policies of cutting spending and increasing taxes in order to avoid exceeding the limit. Thus paradoxically efforts to stay within the limit may give rise to exceptional circumstances where the limit will not apply.

Overall, it is difficult to argue that the Stability and Growth rules are in any sense optimal. However, against that there is a fairly strong case to be made that some form of rules are necessary. Given the heterogeneous nature of the participating countries in European Monetary Union, it was never going to be possible to devise a "one size fits all" set of rules, while tailoring the rules for individual countries would undermine the very idea of a common discipline. A case can be made that the current set of rules may be overly harsh, but only time will tell whether this is so. For the moment these rules remain the framework within which Irish fiscal policy must be applied. However, as the next section outlines, most projections for the public finances into the medium term indicate that there will be scope for policy choices in Ireland.

Choices Regarding the Budgetary Surpluses and the Optimal Size of Government

While the open nature of Ireland's economy suggests that vulnerability to shocks may be a problem, most projections for the public finances indicate that surpluses and a consequent lowering of the debt/GDP ratio is the most likely scenario into the medium term. For example a recent publication by the Department of Finance attempts to look at the budgetary situation as far out as 2050.¹⁴ On the basis that GNP growth levels are expected to slow considerably from the 1998 level of 7.5 per cent to just 2 per cent from 2015 onwards, there should be a budgetary surplus until the year 2032. Thereafter there is an increasing deficit which begins to approach 3 per cent of GNP in 2050. Under this scenario, debt is eliminated by 2016. However by the year 2050, the debt will have returned to just over 11 per cent of GNP.

Allowing for the fact that there will invariably be shocks to this central forecast, the fact remains that the best prediction that can be made is that budgetary surpluses are likely to be a fact of life for the medium term. This raises a number of issues of how best to deal with such surpluses and ultimately concerns issues of the role which government should play in the economy.

In its simplest guise, the choices facing a government consistently running budget surpluses are (a) reduce the public debt (b) cut taxes or (c) increase government spending. The choice between (a) and either (b) or (c) is essentially an intertemporal one, since paying off the public debt will lead to more favourable budgetary outcomes in subsequent years when choices between (b) and (c) must be made. This has implications for transfers between generations. It is also worth noting that demographic developments

indicate that pension requirements, while currently relatively modest, will become of increasing importance from about 2020 onwards. This raises the possibility that rather than using the surplus to retire public debt, a proportion could be put into a separate fund to meet future pension needs. The advantage of this approach compared to one of simply retiring debt is that the return on this fund (which could be invested in an appropriate portfolio of assets worldwide) would presumably be higher than the implied return on retiring the debt. In July 1999 the Government decided that 1 per cent of GNP be annually set aside to meet future pension commitments, although the precise details remain to be finalised (see Chapter 3 for further discussion).

Even allowing for the establishment of a state pension fund and the retirement of public debt, there will still be choices to be made regarding the breakdown between lower taxes and higher government spending. Obviously preferences between the two will be sensitive to underlying value judgements, but there are a number of issues worth discussing.

Is There an Optimal Size of Government?

The first of these concerns whether there is an "optimal" size of government involvement in the economy, either through economic theory or simply through empirical evidence which suggests that countries with a given size of government sector do better, conditional on other factors.

Dealing first of all with what economic theory has to say about the extent of government involvement in the economy, intellectual fashion has changed over the decades. For most of the nineteenth and the first part of the twentieth century the conventional wisdom was that government involvement should be minimal. From about the end of the First World War in 1918 to around the mid 1980s the force was very much with those who favoured an increased role for the government. There were a number of factors lying behind this. First there was a growing belief that the government should be involved in the redistribution of income. It could be argued that such sentiments were particularly strong in the years immediately following the world wars. Government organisation of the war effort and the consequent sense of national solidarity created a climate which was sympathetic to an enlarged public sector. Redistribution of income came in the form of government provision of basic goods such as healthcare, education as well as direct income maintenance. The second factor lying behind the increased role for government was the belief in the need for countercyclical macroeconomic policies following the depression of the 1930s. Maintaining an adequate level of aggregate demand came to be seen as a duty of government. Finally, a role for government was perceived in correcting market failures along the lines discussed in the early parts of this chapter.

By the end of the 1970s a degree of disenchantment had set in regarding the role of government. Redistribution of income was seen to have adverse incentive effects while the efficacy of government in countercyclical policy was undermined by the

simultaneous recession and high inflation of the 1970s. A renewed belief in the efficiency of markets saw the intellectual tide turn against government.

Can we predict how intellectual fashion will develop into the medium term? There are reasons to believe that a relatively minimalist role for government will continue to be the conventional wisdom. This is partly due to technological reasons. Technical advances in areas such as public utilities (e.g. electricity or water supply, telecommunications) imply that such activities are no longer natural monopolies and consequently are better in the hands of private (albeit regulated) rather than public enterprise. Increased globalisation also implies greater competition, part of which may be reflected in tax competition. Thus fiscal authorities may compete for highly mobile global capital, not to mention increasingly mobile labour. Governments may find their role more and more restricted to providing regulation or filling the market gaps which remain. These are most likely to be in the provision of basic goods such as health and education and also in the risk and insurance areas, where market failures are likely to remain. Thus, in conclusion, to the extent that economic theory exerts an influence it is likely to indicate a lesser rather than a greater role for government.

What about empirical evidence regarding economic performance and the size of government? A recent study examined economic performance under a number of headings with countries classified as having "Big", "Medium" or "Small" government.¹⁵ In this context "Big" was taken to mean public expenditure in excess of 50 per cent of GDP, "Medium" was public expenditure 40-50 per cent of GDP while "Small" was public expenditure less than 40 per cent of GDP. Table 4.6 reproduces the results below.

Table 4.6
Size of Government and Performance Indicators in Industrial Countries, 1990
(percentage of GDP unless otherwise indicated)

Indicator	Size of Government		
	Big	Medium	Small
Total Public Expenditure	55.1	44.9	34.6
Public Consumption	18.9	17.4	15.5
Subsidies and Transfers	30.6	21.5	14.0
Economic Indicators:			
Real GDP growth (1986-994)	2.0	2.6	2.5
Standard Deviation of GDP growth	1.6	2.1	1.9
Gross fixed capital formation	20.5	21.3	20.7
Inflation	3.9	3.7	3.7
Unemployment rate	8.5	11.9	6.6
Public debt	79.0	59.9	53.3
Social indicators:			
Life expectancy (years)	77	77	77
Infant mortality/1,000 births	6.7	7.1	6.4
Secondary school enrollment	92.8	99.1	89.0
Income share of poorest 40 per cent	24.1	21.6	20.8

Source: Tanzi and Schuknecht, American Economic Review, 1997.

The evidence in table 4.6 certainly does not support the notion that big is better in terms of government involvement in the economy. Probably the most reasonable

conclusion to draw from table 4.6 is that beyond a certain point, perhaps the one reached by the countries with the small and medium sized governments, an increased role for government produces little benefit in terms of a variety of economic and social indicators.

So where does this leave Ireland in terms of its choices? In terms of table 4.6 Ireland would rank as having a medium sized government, indicating that suggestions for increased public spending should be viewed with caution. However, it must be borne in mind that practically all figures for public spending are presented on a "gross" basis and take little account of depreciation of the capital stock. In Ireland's case, especially given the dramatic growth rates of recent years, a strong argument can be made that we have witnessed a substantial depreciation of the public capital stock and that there is a need for investment in infrastructure.¹⁶ Thus the balance should arguably be towards higher public capital spending until the "infrastructure gap" is bridged. After this point has been reached, however, there is no reason to believe that the arguments outlined above pointing to a relatively low-key role for government involvement should not apply to Ireland.

6. CONCLUSION

This chapter has given an overview of the basic issues involved in taxation, government spending and the level of public debt. It has tried to illustrate how they apply to Ireland and has given a brief account of the main features of the Irish tax system and how it compares with the rest of the OECD. The main conclusion reached here is while it is untrue to regard Ireland as a heavily taxed country, there has been relatively little progress in expanding the tax base and there appears to be little prospect of any improvement in the near future. The chapter also examined the broad thrust of fiscal policy and the issue of the public finances. It spent some time illustrating how difficult it can be to measure accurately the true stance of fiscal policy. Time was also spent discussing the Maastricht criteria and the Stability and Growth Pact, the parameters within which Irish fiscal policy must operate in the future. The conclusion was that while the particular fiscal rules in the Stability and Growth Pact are probably not optimal, the existence of rules themselves is worthwhile and the same sub-optimal features would apply to any set of rules. The chapter concluded by examining some of the options open to Ireland given the likelihood of fiscal surpluses into the future and concluded that barring a once-off programme to improve the quantity and quality of the public capital stock, there did not seem to be a strong case for any substantial expansion of the Irish public sector.

¹ Note that this is a slightly broader measure than tax revenue. It consists of the sum of the operating surplus, property and entrepreneurial income, indirect taxes, direct taxes, social security contributions, fees, fines and penalties, and current transfers received.

² For a useful summary see NESI, *Opportunities, Challenges and Capacities for Choice*, 1999.

³ For a discussion see A. Haufler, 'Prospects for Co-ordination of Corporate Taxation and the Taxation of Interest Income in the EU', *Fiscal Studies*, 1999.

⁴ See F. Hahn, 'On Optimum Taxation', *Journal of Economic Theory*, 1973.

⁵ N. Stern, 'Uniformity Versus Selectivity in Indirect Taxation', *Economics and Politics*, 1990.

⁶ For one specific approach see D. Madden, 'Can we Infer External Effects from a Study of the Irish Indirect Tax System?', *Economic and Social Review*, 1992.

⁷ H. Simons, *Personal Income Taxation*. University of Chicago Press. Chicago, 1938.

⁸ See R. Thom, *The Taxation of Savings*, Research Report No. 2. Foundation for Fiscal Studies. Dublin, 1988.

⁹ See NESAC, *op cit*.

¹⁰ General government lending is defined as the annual surplus (lending) or deficit of net acquisitions of financial assets over net incurrence of liabilities. Gross public debt is the total of outstanding general government financial liabilities, including interest payable.

¹¹ See OECD, *Economic Outlook* No. 66, December 1999.

¹² For a discussion of this issue which is fairly hostile to the Maastricht rules see W. Buiter, G. Corsets and N. Roubini, 'Excessive Deficits: Sense and Nonsense in the Treaty of Maastricht', *Economic Policy*, 1993.

¹³ For a summary of these arguments see L. Christiano, and T. Fitzgerald, 'Understanding the Fiscal Theory of the Price Level', *National Bureau of Economic Research*, Working Paper 7668, 2000.

¹⁴ See Department of Finance, *Long-term Issues Group Paper*, 1998, available at <http://www.irf.gov.ie/finance/>.

¹⁵ See V. Tanzi and L. Schuknecht, 'Reconsidering the Fiscal Role of Government: the International Perspective', *American Economic Review*, 1997.

¹⁶ We should point out the "Catch-22" involved in making such a case. The major constraint on carrying out such investment is the current supply bottleneck in certain sectors of the economy. Yet such investment is needed precisely to remove such bottlenecks, as well as providing improvements in the quality of life.