THE INTERACTION BETWEEN THE PRINCIPLES OF EFFICIENCY AND EQUITY IN IRISH CONSUMPTION AND WEALTH TAXES

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Theory holds that a good tax system satisfies three conditions: it is efficient, equitable and simple. However, as is the case of many economic theories, in reality there are many trade-offs involved between the three. Conor Doyle examines the interaction effects between the two principles of a good tax system in Ireland – equity and efficiency – with relation to consumption and wealth taxes.

Introduction

This paper will show that these principles interact through systems of trade-offs between them in the Irish tax system. I will begin this paper by outlining the concepts of equity and efficiency, providing a framework for their analysis. I will proceed to describe each Irish tax on consumption and wealth, and examine the interaction between the principles of equity and efficiency in the operation of each tax. It will be shown that Irish consumption and wealth taxes are designed with the conflicts between these principles in mind, and that they are doing well at establishing at achieving a workable trade off between them.

Equity and Efficiency

These are two desirable components of a tax system, which often conflict in the recommendations they put forward in designing the tax system. We will look at the theory of each.

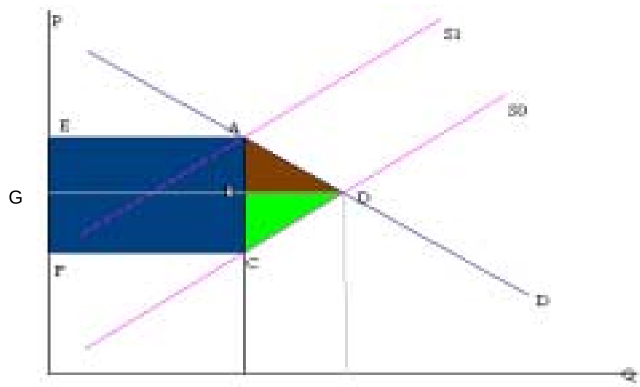
Efficiency

This principle is based on the theory that we would make our optimum utility maximising choices in a perfectly competitive market. An efficient tax is thus one which is "not distortionary" (Stiglitz, 2000) – i.e. it does not affect the choices, which would have been made in the absence of the tax. To design an efficient tax is to attempt to minimise the costs choices foregone in imposing a tax. The principle of efficiency breaks down into three areas:

Economic Efficiency

A tax has been introduced into a market which charges the supplier per unit produced. This tax causes the supplier to charge more for each unit. Supply shifts from S0 to S1, causing a movement along the demand curve to D1. Graphically:

Figure 1: Deadweight Loss of a Tax



Revenue raised by the tax is measured by area EFCA, while there is a loss of utility, termed the deadweight loss (DWL) which corresponds to DCA. The higher the DWL, the greater the incentive for black market activity. The smaller the DWL, the less effect on choices made, for a given level of revenue, the more economically efficient the tax. Thus, the less the price elasticity of demand (PED)[1] of a good. Imagine demand for a second good, D2, with the same supply curves,[2] but a greater PED.

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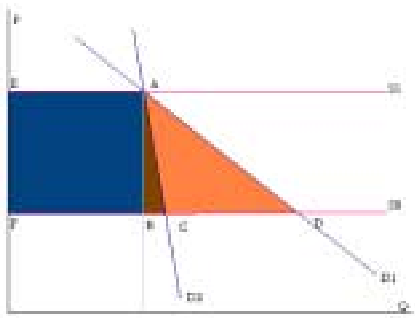
[1] The smaller the change in consumption for a change in price, the smaller the deadweight loss a tax on that good will impose.

[2] We use a horizontal supply curves to exaggerate this effect. In the same situation, non-horizontal supply curves will lead to a greater reduction in excess burden than a reduction in tax revenue, remaining relatively more efficient. See Stiglitz (2000) for mathematical derivation of this relationship.

Both collect the same revenue, but a tax on good 2 imposes a smaller deadweight loss. The difference between the deadweight losses is called the excess burden of the higher tax[3] (Stiglitz, 2000).

Figure 2: Excess burden of a tax



<u>Administration Costs</u>

A tax also imposes a cost of collection. The higher the ratio of revenue collected: the more administratively efficient the tax (Cullis and Jones, 1998).

<u>Compliance Costs</u>

Taxes further impose costs on those who have to pay it, in the form of time and resources needed to comply (Ibid). This may include lawyers, accountants costs, physical stress of compliance, time away from productive work, etc. If compliance costs are higher than those of avoiding the tax legally, resources may be moved from productive activities to tax avoidance, lowering overall welfare. If compliance costs are higher than the costs of illegal evasion, there is an incentive for black market activity.

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[3] The size of the overall tax burden is determined by the government through a range of considerations, not all of which are economic. The overall burden of tax is thus irrelevant to this paper, only the relative excess burden.

Equity

The definition of an equitable tax is the subject of many arguments (Kelly, 2000; Cullins and Jones, 1998). It seems reasonable that individuals in the same circumstances should pay the same amount (Horizontal Equity) and thus that individuals in different circumstances should pay different amounts (Vertical Equity). But even these seemingly reasonable assertions beg the question; which differences are relevant? How should people in different situations be treated? What should be taxed? (Stiglitz, 2000)

This paper is not intended to answer these questions and will not calculate 'optimum taxes,' which are themselves subject to value judgements. I intend only to look at the value judgements on equity evident in the Irish consumption and wealth taxes. The most important elements of a tax system from an equity viewpoint are:

<u>Progressiveness</u>

A tax system is said to be progressive, if it takes proportionally more tax from those with a higher ability to pay (i.e vertically equitable). We can take a simple measure of the progressiveness of a tax using:

$$(T_1/I_1) - (T_0/I_0) / (I_1 - I_2), \quad T_1 > T_0$$

Where T_1 and T_0 are the tax liabilities at income levels I_1 and I_0 (Rosen, 1992).

<u>Incidence</u>

The incidence of a tax refers to who actually pays it. Referring to Figure 1, the incidence is split between the amount the supplier pays (ABGE) and the amount the consumer pays (CBGF). This occurs despite the fact that the tax was levied on the supplier. Who pays how much of the tax depends on the relative PEDs of the demand and supply curves. According to vertical equity, the incidence of a tax should fall on those more able to pay i.e. luxury goods/goods with high PEDs should be more heavily taxed.

Equity vs. Efficiency – Trade Offs

It should be clear that the design of any tax system faces conflict between these objectives. As regards consumption tax, efficiency perspectives recommends we tax necessities, equity says we should tax luxury goods. As regards wealth tax, efficiency says we should tax all wealth to minimise incentives for tax evasion, while equity says we should tax the wealthier more heavily.

The Irish Tax System

We now examine the specific operation of each tax, and the interaction between the principles of equity and efficiency in their operation.

We should first note the relative importance of these taxes to the Irish Exchequer. Irish tax receipts are more dependent than most of our EU partners on returns from consumption. Nonetheless, when we come to our conclusions, it should be borne in mind that income tax is still the most important source of tax revenue.

I would also note that administration costs are negligible. The Revenue Commissioners received a budget of €262 million in 2002, or 0.01% of government expenditure from tax receipts (Department of Finance, 2003)

Table 1: Tax Revenue Structures in the EU and USA

	Property Taxes	Consumption Taxes	Social Security Contributions	Income and Profits	Other
USA	10.1	13.8	23.3	49.1	3.7
Austria	1.3	26.8	34.2	28.7	9
Belgium	3.3	23.3	30.9	38.6	3.9
Denmark	3.3	30.9	4.6	58.9	2.3
Germany	2.3	27.2	39	29.8	1.7
Ireland	5.6	35.6	13.6	42.2	3
Italy	4.3	25.8	28.5	34	7.4
Holland	5.4	26.2	38.9	25.3	4.2
Sweden	3.4	20.1	28.1	41.6	6.8
UK	11.9	30.8	16.4	39.2	1.7

Source: OECD (2002)

Consumption Taxation

There is one major and two minor consumption taxes in Ireland:

1. Value-Added Tax (VAT)

"A general sales tax applied at all stages of production and distribution to the supply of taxable goods or services" (Revenue Commission, 2004).

While it may be economically efficient to tax consumption of commodities with lower PEDs, by their nature, such goods are often necessities. Taxing them will lead to proportionately higher taxes on poorer people, who spend proportionately more of their income on necessities. VAT follows a strongly progressive system, which insures tax incidence is on those buying luxury goods and minimises regressive distribution impacts. Necessities are mainly zero-rated for VAT, including food, educational services, children's clothing, and medical services & supplies. Eating out and most services are charged at 13.5%. Luxury goods are penalised at 21%, including all consumer durables, business supplies, and most manufactured goods (Ibid.) Incidence falls on those buying higher more "luxury" goods.

Clearly this system is economically inefficient, as it imposes an excess burden on society as a whole. The Government recognises the inefficiency of VAT and explains the logic of the interaction between the two principles under VAT thus:

> "Valid arguments have been made by the NESC in the past that maintaining zero rates of VAT is economically inefficient… Notwithstanding… it appears that it would be difficult to gain public acceptance for any removal of the existing zero rates… It would not be possible to compensate all those potentially affected in an exact manner. There has been pressure from time to time to introduce a second lower rate possibly as low as 5 per cent. This option has been rejected, in the past, mainly due to the cost to the Exchequer… the existing single reduced rate works well in terms of maintaining a balance between collecting revenue and reducing the development of black economy activity." (Tax Strategy Group, 2001b)

The government recognise that the tax is considered roughly equitable, and do not wish to upset this perception. Therefore, efficiency is maximised within the current equity framework. Compliance costs for consumption taxes are clearly negligible:

Table 2: Payment compliance

	1999			2000		
Payment Compliance All Cases	Due Month	Due Month + 1	Due Month + 2	Due Month	Due Month + 1	Due Month + 2
VAT	73%	91%	96%	77%	93%	97%

Source: Tax Strategy Group, 2001a.

The use of a higher tax rate across many sectors leads to administrative inefficiency. However, this is apparently negligible, and the impact of many small market distortions tends to be less than the impact of one large distortion (Stiglitz, 1999)

2. Specific Consumption Taxes

A number of specific consumption taxes have been levied, the most important being on alcohol, tobacco and petrol. These taxes manage to combine equity and efficiency. The goods taxed have high PEDs - but are also seen as social vices rather than necessities. If people use less of them, the inequitable impact of these taxes can be relieved with a socially acceptable outcome (Revenue Commission, 2004).

3. Withholding Tax on Professional Fees (WT)

"A withholding tax, at the rate of 20 per cent, is deductible at source from payments for 'professional services' made to individuals and companies by 'accountable persons' (Government Departments, local authorities, health boards, State bodies, etc.) (Ibid).

WT, a small part of 'other taxes' has little impact on the economy. It imposes little economic inefficiency and has few other costs as it is 'deductible at source'. It remains generally progressive and equitable, in that it major services (medical, education, social) are exempt, being covered by PAYE and PRSI.

Wealth Taxes

"Strictly speaking, the term wealth tax can be used to cover a tax on the transfer of wealth (such as a gift tax, estate duty, or capital acquisition tax), a tax on appreciation of wealth (a capital gains tax), as well as a tax on the stock of wealth" (Sandford & Morrissey, 1985).

Ireland has two Wealth Taxes[4] :

1. Capital Gains Tax (CGT)

"A capital gains tax is chargeable on the gains arising on the disposals of assets other than that part of a gain which arose in the period prior to the 6th of April 1974. Any form of property (other than Irish currency) including an interest in property (as, for example, a lease) is an asset for Capital Gains Tax" (Revenue Commission, 2004).

Thus, property taxes correspond to CGT. However, CGT encompasses a raft of exemptions clearly designed to remove the incidence from those with a low stock of wealth. The first €1,270 of personal capital gains in a year are excluded, as are sale of one's home, if it is your only house and sale of a life assurance policy not

[4] Deposit Interest Retention Tax is a tax on income accruing from a stock of wealth and is therefore not included

bought from another individual. There are further exemptions for small firms (one owner), depreciation, sporting bodies, charities and trade unions (Ibid).

Gains accruing to other/larger businesses, [5] and wealth accruing to individuals beyond the levels above, are taxed at 20%. Thus the tax is proportional and avoids the economic inefficiencies

2. Capital Acquisitions Tax (CAT)

"Capital Acquisitions Tax comprises Gift Tax, Inheritance Tax, Discretionary Trust Tax and Probate Tax".

Gift Tax (GT) and Inheritance Tax (IT)

GT and IT operate such that inheritances within the direct family are not taxed heavily, while other gifts and inheritances are heavily taxed. Accordingly, there is a tax free threshold of €441,198 for gifts or bequests to a son/daughter and a special exemption for nephews/nieces inheriting from childless aunts/uncles. All other inheritances and gifts are taxed at levels above of €44,120. From an equity standpoint, incidence is removed from individuals and families.

Given recent rises in property prices, this tax does impose a considerably larger deadweight loss on such 'other' groups of inheritors. However, given the small amount collected through this tax, this deadweight loss is relatively small from the standpoint of society as a whole. Irregularity of collection minimises compliance and administration costs.

However, while the tax is proportional the fact that the tax is levied on those with higher stocks of wealth makes the cost of tax evasion much lower in relation to costs of paying. There may be black market activity generated. As Sandford and Morrissey (1985) show, the direct wealth tax, which acted as an annual gift and inheritance tax, applied to so few that its returns hardly merited its costs.

Probate Tax (PT) and Discretionary Trust Tax (DTT)

> "Probate Tax is charged at the rate of 2% on the estates of persons dying…A once-off Inheritance Tax applies to property subject to a discretionary trust…The current rate of tax is 6%. An annual Inheritance Tax at the rate of 1% applies to property subject to a discretionary trust" (Revenue Comission, 2004).

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[5] In the interests of administrative and compliance efficiency, many capital gains accruing to business other than sale of land, are taxed under Corporation tax, at the same rate as CGT (Ibid)

PT exemptions include estates below €50,790 in 2000, property passing absolutely to a surviving spouse, the principal private residence, property passing to a charity, heritage property.

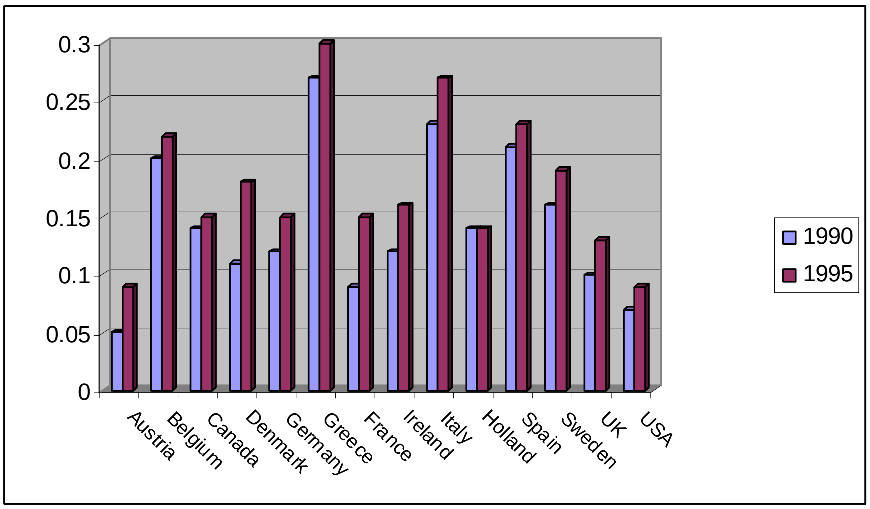
The low level of tax, irregular payment and large exemptions allow equity and efficiency to interact in the same way as for IT and GT. There are no exemptions on DTT.

Outcomes of the Interaction between Efficiency and Equity in Irish Consumption and Wealth Taxes

The Irish tax system seems to have gotten the balance between equity and efficiency about right.

As regards equity, Ireland has managed to keep an average score on the GINI index of income inequality relative to other industrial nations.

Figure 3: Gini coefficients in the EU and USA[6]



Source: World Bank, 2004.

6 No full set of GINI coefficients is available for more recent years. In fact, the World Bank has collected only two relevant figures – Belgium, 0.29-1996, and USA, 0.41-1997 .

Table 3: GINI coefficients in the EU and USA

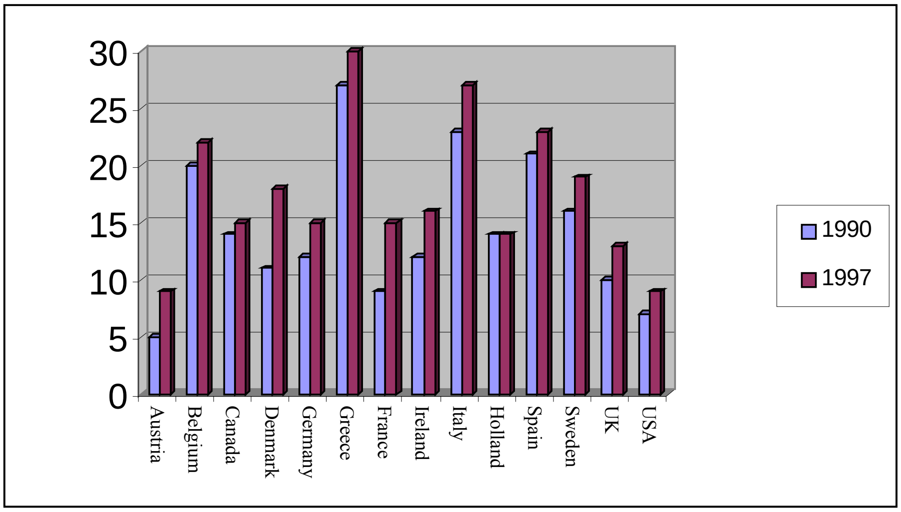
	Austria	Belgium	Canada	Denmark	Germany	Greece	France
1990	0.05	0.2	0.14	0.11	0.12	0.27	0.09
1995	0.09	0.22	0.15	0.18	0.15	0.3	0.15

	Ireland	Italy	Holland	Spain	Sweden	UK	USA
1990	0.12	0.23	0.14	0.21	0.16	0.1	0.07
1995	0.16	0.27	0.14	0.23	0.19	0.13	0.09

Source: O'Hagan (2000).

However, efficiency also remains relatively good. Despite market distortions, the level of black market activity is average.

Figure 4: Level of black market activity in the economy



Source: McAleese, (2001)

Clearly, this is not solely due to wealth and consumption taxes. As noted above, income tax is the largest tax revenue source in Ireland. Other factors such as government corruption, tradition, social values, etc. also have a (non-quantifiable) part to play. However, consumption and wealth taxes constitute close to half of all taxes in Ireland, and are thus significant factors in determining the overall interplay between the principles of equity and efficiency in Ireland.

Conclusions

It is clear that the taxes discussed have been set up with the trade offs between efficiency and equity in mind. They are consciously designed to maximise both efficiency and equity objectives. While this paper can only provide a discussion of half of Irish tax revenues, as the introduction stated, the Irish tax system is doing rather well at creating a system, in which equity and efficiency interact to achieve both a relatively equitable distribution and a relatively efficient tax regime.

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